TAB #2 C-D

BRAND/ MANUFACTURER	PRODUCT
Cadweld	Aluminum Welding Material
Cadweld	Electrical Welding Material
Cadweld	Plus Welding Material
Cadweld	Starting Material
Carlon	All Weather Quickset Clear Cement
Carlon	Clear PVC Solvent Cement
Citgo	Diesel Fuel, All Grades No. 1
Citgo	Diesel No 2—Kerosene
Citgo	Resolute 10W-30 Motor Oil
Citgo	Transgard Dexron- VI ATF
Citgo	Unleaded Gasoline
Clorox Company	409 All Purpose Cleaner
Clorox Company	Disinfecting Wipes
Clorox Company	Regular Bleach
CRC	Brake Parts Cleaner
Crouse Hinds	Chico A Sealing Compound
Crouse Hinds	Chico X Fiber
DAP	100% Silicone
DAP	Watertite Roof Sealant
Duct Seal	#1003 Asbestos Free

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: CADWELD® Aluminum Welding Material

Inclusive of material types: A22
Applicable prefixes: ACB, ACC, ACL

Container size: 30 g - 2.5 kg

Relevant identified uses of the substance or mixture and uses advised against

Application: Exothermic Welding material

Details of the supplier of the safety data sheet

Manufacturer

ERICO International Corporation
34600 Solon Road
Solon, Ohio 44139
Tel:(440) 248-0100

Emergency telephone number

Emergency telephone:

Chemtel
1-800-255-3924 USA
+01-813-248-0585 International

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Flammable Solid, category 2;H228

Label elements

WARNING

H228	Flammable solid.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust/fume
P280	Wear eye protection and gloves.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378	In case of fire: Use dry sand to extinguish.
P501	Dispose of contents/container in accordance with local regulations.

Other hazards

Other: Improper use of the product or inadequate preparation of the conductors, molds or surroundings can result in aggressive reactions. Self-propagating high temperature reaction will occur if heated above ignition temperature. Generates molten metal in excess of 2500ºF (1370ºC), slag and dense, dusty smoke. The molten product can cause serious burns. Inhalation of powder or fumes may cause metal fume fever. Exposure to reaction by-products: See section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Only classified substances above threshold limits are shown.

OSHA 2012:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
30-60	7429-90-5	231-072-3	01-2119529243-45-	Aluminium powder (stabilised)	Water-react. 2;H261 Flam. Sol. 1;H228	
1-<15	1317-39-1	215-270-7	01-2119513794-36-	Dicopper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	M = 1
1-<10	1317-38-0	215-269-1	01-2119502447-44-	Copper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1

Notes: M: M-Factor

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Molten product will cause skin burns and if in contact with eyes while in a molten state may cause serious damage.

Inhalation: Inhalation of welding fumes/Dust inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. If material is hot, treat for thermal burns and get immediate medical attention.

Eye contact: Dust in the eyes: Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: Inhalation of powder or fumes may cause metal fume fever. Symptoms like headache, fatigue and nausea may appear. See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Burns (in contact with molten metal, slag or hot equipment): Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Dry sand and/or flooding with large amounts of water after reaction is complete.

Extinguishing media which are not suitable: Hand water buckets or hand storage pumps. Molten metal contact with water can cause small pockets of superheated steam.

Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture

Specific hazards: During fire, health hazardous gases may be formed.
Ignition temperature: > 1650°F

The ignition of the packaging materials may, in rare cases, lead to ignition. Direct application of water is not recommended. This product makes use of fine grade aluminums that have the potential to have adverse chemical reactions if exposed to large volumes of water. These reactions can result in evolution of hydrogen gas that can significantly increase fire intensity and potential "explosion" hazards.

Ignition of large quantities of exothermic materials may result in large volumes of dense smoke.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

Remove sources of ignition. Ventilate well.

Environmental precautions

Environmental precautions: Precaution should be taken to prevent hot material and reaction byproducts from contact with combustible materials in surrounding areas. Avoid spreading dust or contaminated materials. Avoid discharge to the aquatic environment. Contact local authorities in case of spillage to drain/aquatic environment.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Sweep up spilled substance and remove to safe place.
For large spills use natural fiber brush or broom with a conductive, non-sparking pan.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice:	Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Observe good chemical hygiene practices. CADWELD Aluminum Welding Material is designed for use in CADWELD equipment only. Use of improper or damaged equipment can lead to exposure to molten metal and reaction byproducts, resulting in personal injury.
Technical measures:	Do not smoke or use open fire or other sources of ignition. Work practice should minimize risk of contact. All product instructions should be followed to ensure proper welding and safety. For additional information, see American National Standard, Safety In Welding And Cutting, and Z49.1.
Technical precautions:	Confined space: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage:	CADWELD Aluminum Welding Material should be stored in a clean, dry and secure location. Storage should include provisions to minimize rough handling, excessive vibration and physical abuse. All outer packages must be stored in accordance with label markings. Follow the rules for storage of flammable products.
Storage conditions:	If evidence is present of damaged or contaminated products, these units should not be used. If proper storage is maintained, CADWELD Materials do not exhibit any storage or shelf life.

Specific end use(s)

Specific use(s):	Welding material

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
7429-90-5	Aluminum, metal, total dust	Al	15 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum, metal, respirable fraction	Al	5 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum metal, respirable fraction	-	1 mg/m3	TWA	A4	ACGIH
7440-50-8	Copper, dusts and mists	Cu	1 mg/m3	TWA	-	OSHA
7440-50-8	Copper, fume	Cu	0.1 mg/m3	TWA	-	OSHA
7440-50-8	Copper dusts and mists	Cu	1 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, fume	-	0.2 mg/m3	TWA	-	ACGIH
18282-10-5	Tin inorganic compounds (except oxides)	Sn	2 mg/m3	TWA	-	OSHA
-	Tin oxide & inorganic compounds, except tin hydride	Sn	2 mg/m3	TWA	-	ACGIH
-	Fluorides	F	2.5 mg/m3	TWA	A4	ACGIH
-	Fluorides	F	2.5 mg/m3	TWA	-	OSHA

Notes: A4: Not Classifiable as a Human Carcinogen.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust and fumes.

Personal protection: Personal protection equipment should be chosen according to the relevant standards and in discussion with the supplier of the personal protective equipment. Use special welding equipment for protection of eyes, skin and respiratory system.

Respiratory equipment: Normal use precludes use of special protection as material is generally used out of doors, in small quantities and is of short duration. In case of inadequate ventilation and work of long duration or on large surface areas in confined rooms. Wear suitable respiratory equipment for dusts and metal fumes.

Hand protection: Heat insulated protective gloves. Recommended for handling hot equipment.

Eye protection: Wear goggles/face shield. Avoid direct eye contact with ”flash” of light from reaction.

Skin protection: Use protective clothing, which covers arms and legs.

Hygiene measures: Wash hands after handling. Change contaminated clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form:	Powder
Color:	Silvery-white
Odor:	Odorless.
pH:	Not available.
Melting point / freezing point:	428°F
Boiling point:	Not available.
Flash point:	> 1650°F
Evaporation rate:	Not relevant.
Vapor pressure:	Not relevant.
Vapor density:	Not relevant.
Relative density:	5.0
Solubility:	Insoluble in water
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature (°C):	> 1650°F
Decomposition temperature (°C):	Not available.
Viscosity:	Not relevant.
Explosive properties:	Not available.
Oxidizing properties:	Not available.

Other information

Other data:	-

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: See hazardous reactions.

Chemical stability

Stability: Stable. Not sensitive to vibrations, shock or impact and is not subject to spontaneous ignition.

Possibility of hazardous reactions

Hazardous Reactions: Aggressive reactions are possible if excess moisture is present in the mold or on the conductors to be welded. Care should be taken to ensure proper preparation in accordance with instruction prints.

Conditions to avoid

Conditions/materials to avoid: Temperatures above ignition point. 1650°F

Incompatible materials

Incompatible materials: Typical of problems associated with molten metals.

Hazardous decomposition products

Hazardous decomposition products: None under normal conditions. Polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Dust may irritate throat and respiratory system and cause coughing. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Skin contact: Dust has an irritating effect on moist skin. Prolonged and/or repeated contact: May cause eczema-like skin disorders (dermatitis). The molten product can cause serious burns.

Eye contact: Particles/fumes in the eyes may cause discomfort/irritation.

Ingestion: Ingestion may cause nausea, headache, dizziness and intoxication.
Dicopper oxide: LD50 > 500 mg/kg

Specific effects: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Copper oxide may by repeated or prolonged inhalation occasionally cause ulceration and perforation of the nasal septum. Long term exposure to copper containing dusts may cause allergic dermatitis. Long term exposure to tin oxide may cause stannosis.
This product contains no ingredient listed on the NTP, OSHA or IARC carcinogen lists.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Dicopper oxide: EC50 (Daphnia magna, 48 hours): 0.51 mg/l

Persistence and degradability

Degradability: The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: The product is not volatile but may be spread by dust-raising handling.

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

UN number

UN-No:	3089

UN proper shipping name

Proper Shipping Name:	METAL POWDER, FLAMMABLE, N.O.S. (Aluminum powder (stabilized))

Transport hazard class(es)

Class:	4.1

Packing group

PG:	II

Environmental hazards

Marine pollutant:	-
Environmentally Hazardous substance:	-

Special precautions for user

Special precautions:	-

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk:	-

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions:

State and local regulation may apply.

TSCA: The ingredients of this product are on the TSCA Inventory.
SARA Section 302: No
SARA Section 313: Yes

NFPA Rating: Health:2 Fire:1 Reactivity:1 Other:-
HMIS Rating: Health:2 Fire:1 Reactivity:1 Personal protection:B

B = Safety Glasses and Gloves.

National regulation:

The following lists have been checked:
Threshold Limit Values (2014), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.
NIOSH Pocket Guide to Chemical Hazards.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Hazard Communication, with amendments.
U.S. Department of health and human services: 2014 - Report on Carcinogens - 13th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.
Threshold Limit Values (2015), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and Notification.
The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release Reporting: Community Right to Know.

Chemical Safety Assessment in compliance with Regulation (EC) No 1907/2006 (REACH)

CSA status:

Not relevant.

SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1-16

Abbreviations and acronyms used in the safety data sheet:	PBT = Persistent, Bioaccumulative and Toxic. vPvB = very Persistent and very Bioaccumulative.
Wording of H-statements:	
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: CADWELD® Electrical Welding Material

Inclusive of material types: F20, F80, F33, XF19, F76
Applicable prefixes: CA, SB, PB, XL, XF, ACB, ACC

Relevant identified uses of the substance or mixture and uses advised against

Application: Exothermic Welding material

Details of the supplier of the safety data sheet

Manufacturer

ERICO International Corporation
34600 Solon Road
Solon, Ohio 44139
Tel:(440) 248-0100

Emergency telephone number

Emergency telephone:

Chemtel
1-800-255-3924 USA
+01-813-248-0585 International

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Acute Toxicity, category 4;H302

Label elements

WARNING

H302	Harmful if swallowed.
P260	Do not breathe dust/fume
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local regulations.
P330	Rinse mouth.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Other hazards

Other: Improper use of the product or inadequate preparation of the conductors, molds or surroundings can result in aggressive reactions. Self-propagating high temperature reaction will occur if heated above ignition temperature. Generates molten metal in excess of 2500ºF (1370ºC), slag and dense, dusty smoke. The molten product can cause serious burns. Inhalation of powder or fumes may cause metal fume fever. Exposure to reaction by-products: See section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Only classified substances above threshold limits are shown.

OSHA 2012:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
25-85	1317-39-1	215-270-7	01-2119513794-36-	Dicopper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	M = 1
1-30	1317-38-0	215-269-1	01-2119502447-44-	Copper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1
1-30	7440-50-8	231-159-6	01-2119480154-42-	Copper	Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1
1-20	7429-90-5	231-072-3	01-2119529243-45-	Aluminium powder (stabilised)	Water-react. 2;H261 Flam. Sol. 1;H228	

Notes: M: M-Factor

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Molten product will cause skin burns and if in contact with eyes while in a molten state may cause serious damage.

Inhalation: Inhalation of welding fumes/Dust inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. If material is hot, treat for thermal burns and get immediate medical attention.

Eye contact: Dust in the eyes: Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: Inhalation of powder or fumes may cause metal fume fever. Symptoms like headache, fatigue and nausea may appear. See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Burns (in contact with molten metal, slag or hot equipment): Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with dry sand and/or flood with large amounts of water.

Extinguishing media which are not suitable: Hand water buckets or hand storage pumps. Molten metal contact with water can cause small pockets of superheated steam.

Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture

Specific hazards: During fire, health hazardous gases may be formed.
Ignition temperature: >1750°F

In the event that the packaging materials are ignited, the immediate and direct application of large quantities of water will effectively eliminate the spread of fire to the surrounding areas. The ignition of the packaging materials may, in rare cases, lead to ignition. Direct application of a continuous heavy stream of water is recommended.

Ignition of large quantities of exothermic materials may result in large volumes of dense smoke.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

Remove sources of ignition. Ventilate well.

Environmental precautions

Environmental precautions: Precaution should be taken to prevent hot material and reaction byproducts from contact with combustible materials in surrounding areas. Avoid spreading dust or contaminated materials. Avoid discharge to the aquatic environment. Contact local authorities in case of spillage to drain/aquatic environment.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Sweep up spilled substance and remove to safe place.
For large spills use natural fiber brush or broom with a conductive, non-sparking pan.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice:	Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Observe good chemical hygiene practices. CADWELD Exothermic Welding Materials and Filler Materials are designed for use in CADWELD equipment only. Use of improper or damaged equipment can lead to exposure to molten metal and reaction byproducts.
Technical measures:	Do not smoke or use open fire or other sources of ignition. Work practice should minimize risk of contact. All product instructions should be followed to ensure proper welding and safety. For additional information, see American National Standard, Safety In Welding And Cutting, and Z49.1.
Technical precautions:	Confined space: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage:	CADWELD Electrical Welding Material should be stored in a clean, dry and secure location. Storage should include provisions to minimize rough handling, excessive vibration and physical abuse. All outer packages must be stored in accordance with label markings.
Storage conditions:	If evidence is present of damaged or contaminated products, these units should not be used. If proper storage is maintained, CADWELD Materials do not exhibit any storage or shelf life.

Specific end use(s)

Specific use(s):	Welding material

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

A detailed fume analysis was conducted on CADWELD Electrical Welding Materials. Reactions byproducts were tested for total dust, respirable dust, metals, acids, fluorides, and various elements identified in typical welding fume analysis. All sampling and analysis followed methodologies dictated by the National Institute of Occupational Safety and Health (NIOSH) and by the Occupational Safety and Health Administration (OSHA). A certified Industrial Hygienist did the sample collection and independent labs conducted all analytical work. Data collected was evaluated and compared to limits set by the American Conference of Governmental Industrial Hygienis ts (ACGIH) and OSHA. As a worse case scenario, calculations were completed based on a sealed 800 ft3 room with no ventilation. These calculations would indicate that the copper fume PEL would be the limiting factor. Under normal outdoor use or in ventilated areas threshold limits are beyond any expected exposure limits.

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
7429-90-5	Aluminum, metal, respirable fraction	Al	5 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum, metal, total dust	Al	15 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum metal, respirable fraction	-	1 mg/m3	TWA	A4	ACGIH
7440-21-3	Silicon, respirable fraction	-	5 mg/m3	TWA	-	OSHA
7440-21-3	Silicon, total dust	-	15 mg/m3	TWA	-	OSHA
7440-31-5	Tin, metal	Sn	2 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, dusts and mists	Cu	1 mg/m3	TWA	-	OSHA
7440-50-8	Copper dusts and mists	Cu	1 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, fume	Cu	0.1 mg/m3	TWA	-	OSHA
7440-50-8	Copper, fume	-	0.2 mg/m3	TWA	-	ACGIH
-	Fluorides	F	2.5 mg/m3	TWA	-	OSHA
-	Fluorides	F	2.5 mg/m3	TWA	A4; BEI	ACGIH

Notes: A4: Not Classifiable as a Human Carcinogen.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust and fumes.

Personal protection: Personal protection equipment should be chosen according to the relevant standards and in discussion with the supplier of the personal protective equipment. Use special welding equipment for protection of eyes, skin and respiratory system.

Respiratory equipment: Normal use precludes use of special protection as material is generally used out of doors, in small quantities and is of short duration. In case of inadequate ventilation and work of long duration or on large surface areas in confined rooms. Wear suitable respiratory equipment for dusts and metal fumes.

Hand protection: Heat insulated protective gloves. Recommended for handling hot equipment.

Eye protection: Wear goggles/face shield. Avoid direct eye contact with ”flash” of light from reaction.

Skin protection: Use protective clothing, which covers arms and legs.

Hygiene measures: Wash hands after handling. Change contaminated clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form:	Granular.
Color:	Gray-black
Odor:	Odorless.
pH:	Not available.
Melting point / freezing point:	2000°F
Boiling point:	Not available.
Evaporation rate:	Not relevant.
Vapor pressure:	Not relevant.
Vapor density:	Not relevant.
Solubility:	Insoluble in water
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature (°C):	> 1750°F
Decomposition temperature (°C):	Not available.
Viscosity:	Not relevant.
Explosive properties:	Not available.
Oxidizing properties:	Not available.

Other information

Other data:	SPECIFIC GRAVITY (water=1): 5.5

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: See hazardous reactions.

Chemical stability

Stability: Stable. Not sensitive to vibrations, shock or impact and is not subject to spontaneous ignition.

Possibility of hazardous reactions

Hazardous Reactions: Aggressive reactions are possible if excess moisture is present in the mold or on the conductors to be welded. Care should be taken to ensure proper preparation in accordance with instruction prints.

Conditions to avoid

Conditions/materials to avoid: Temperatures above ignition point. 1750°F

Incompatible materials

Incompatible materials: Typical of problems associated with molten metals.

Hazardous decomposition products

Hazardous decomposition products: None under normal conditions. Polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Dust may irritate throat and respiratory system and cause coughing. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Skin contact: Dust has an irritating effect on moist skin. Prolonged and/or repeated contact: May cause eczema-like skin disorders (dermatitis). The molten product can cause serious burns.

Eye contact: Particles/fumes in the eyes may cause discomfort/irritation.

Ingestion: Ingestion may cause nausea, headache, dizziness and intoxication.
Dicopper oxide: LD50 > 500 mg/kg

Specific effects: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Copper oxide may by repeated or prolonged inhalation occasionally cause ulceration and perforation of the nasal septum. Long term exposure to copper containing dusts may cause allergic dermatitis.
This product contains no ingredient listed on the NTP, OSHA or IARC carcinogen lists.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Dicopper oxide: EC50 (Daphnia magna, 48 hours): 0.51 mg/l

Persistence and degradability

Degradability: The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: The product is not volatile but may be spread by dust-raising handling.

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

The product material has been tested by independent facilities in accordance with D.O.T. / U.N. CFR 49 and I.A.T.A. Dangerous Goods Regulations to determine the applicable ratings of this material. Based on the results of this testing, the CADWELD Electrical Welding Material is not classified as a flammable solid.
Due to the minimal quantity present per package, this material and the CADWELD Electrical Welding Material package is shipped under provisions outlined under D.O.T. / U.N. 49 CFR 171.1 “General Regulations for the Transportation of Hazardous Material” and 173.4 “Exceptions for Small Quantities”. All materials are packaged and marked at the factory in full compliance with these regulations.The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA).

UN number

UN-No: -

UN proper shipping name

Proper Shipping Name: -

Transport hazard class(es)

Class: -

Packing group

PG: -

Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

Special precautions for user

Special precautions: -

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: -

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions:

State and local regulation may apply.
TSCA: The ingredients of this product are on the TSCA Inventory.
SARA Section 302: No
SARA Section 313: Yes

NFPA Rating: Health:2 Fire:1 Reactivity:1 Other:-
HMIS Rating: Health:2 Fire:1 Reactivity:1 Personal protection:B

B = Safety Glasses and Gloves.

National regulation:

The following lists have been checked:
Threshold Limit Values (2014), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.
NIOSH Pocket Guide to Chemical Hazards.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Hazard Communication, with amendments.
U.S. Department of health and human services: 2014 - Report on Carcinogens - 13th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.
Threshold Limit Values (2015), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and Notification.
The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release Reporting: Community Right to Know.

Chemical Safety Assessment in compliance with Regulation (EC) No 1907/2006 (REACH)

CSA status: Not relevant.

SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1-16

Abbreviations and acronyms used in the safety data sheet:	PBT = Persistent, Bioaccumulative and Toxic. vPvB = very Persistent and very Bioaccumulative.
Wording of H-statements:	
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: CADWELD® Plus Welding Material

Inclusive of material types: F20, F80, F33, XF19
Applicable prefixes: SB, PB, CA

Relevant identified uses of the substance or mixture and uses advised against

Application: Exothermic Welding material

Details of the supplier of the safety data sheet

Manufacturer

ERICO International Corporation
34600 Solon Road
Solon, Ohio 44139
Tel:(440) 248-0100

Emergency telephone number

Emergency telephone:

Chemtel
1-800-255-3924 USA
+01-813-248-0585 International

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Acute Toxicity, category 4;H302

Label elements

WARNING

H302	Harmful if swallowed.
P260	Do not breathe dust/fume
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local regulations.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P330	Rinse mouth.

Other hazards

Other: Improper use of the product or inadequate preparation of the conductors, molds or surroundings can result in aggressive reactions. Self-propagating high temperature reaction will occur if heated above ignition temperature. Generates molten metal in excess of 2500ºF (1370ºC), slag and dense, dusty smoke. The molten product can cause serious burns. Inhalation of powder or fumes may cause metal fume fever. Exposure to reaction by-products: See section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Only classified substances above threshold limits are shown.

OSHA 2012:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
25-85	1317-39-1	215-270-7	01-2119513794-36-	Dicopper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	M = 1
1-30	1317-38-0	215-269-1	01-2119502447-44-	Copper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1
1-30	7440-50-8	231-159-6	01-2119480154-42-	Copper	Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1
1-20	7429-90-5	231-072-3	01-2119529243-45-	Aluminium powder (stabilised)	Water-react. 2;H261 Flam. Sol. 1;H228	

Notes: M: M-Factor

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Molten product will cause skin burns and if in contact with eyes while in a molten state may cause serious damage.

Inhalation: Inhalation of welding fumes/Dust inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. If material is hot, treat for thermal burns and get immediate medical attention.

Eye contact: Dust in the eyes: Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: Inhalation of powder or fumes may cause metal fume fever. Symptoms like headache, fatigue and nausea may appear. See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Burns (in contact with molten metal, slag or hot equipment): Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with dry sand and/or flood with large amounts of water.

Extinguishing media which are not suitable: Hand water buckets or hand storage pumps. Molten metal contact with water can cause small pockets of superheated steam.

Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture

Specific hazards: During fire, health hazardous gases may be formed.
Ignition temperature: >1750°F

In the event that the packaging materials are ignited, the immediate and direct application of large quantities of water will effectively eliminate the spread of fire to the surrounding areas. The ignition of the packaging materials may, in rare cases, lead to ignition. Direct application of a continuous heavy stream of water is recommended.

Ignition of large quantities of exothermic materials may result in large volumes of dense smoke.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

Remove sources of ignition. Ventilate well.

Environmental precautions

Environmental precautions: Precaution should be taken to prevent hot material and reaction byproducts from contact with combustible materials in surrounding areas. Avoid spreading dust or contaminated materials. Avoid discharge to the aquatic environment. Contact local authorities in case of spillage to drain/aquatic environment.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Sweep up spilled substance and remove to safe place.
For large spills use natural fiber brush or broom with a conductive, non-sparking pan.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice:	Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Observe good chemical hygiene practices. CADWELD PLUS integrated packages are designed for use in CADWELD equipment only. Use of improper or damaged equipment can lead to exposure to molten metal and reaction byproducts.
Technical measures:	Do not smoke or use open fire or other sources of ignition. Work practice should minimize risk of contact. All product instructions should be followed to ensure proper welding and safety. For additional information, see American National Standard, Safety In Welding And Cutting, and Z49.1.
Technical precautions:	Confined space: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage:	CADWELD PLUS material should be stored in a clean, dry and secure location. Storage should include provisions to minimize rough handling, excessive vibration and physical abuse. All outer packages must be stored in accordance with label markings.
Storage conditions:	If evidence is present of damaged or contaminated products, these units should not be used. If proper storage is maintained, the CADWELD PLUS unit and CADWELD Welding Materials do not exhibit any storage or shelf life.

Specific end use(s)

Specific use(s):	Welding material

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

A detailed fume analysis was conducted on CADWELD PLUS. Reaction byproducts were tested for total dust, respirable dust, metals, acids, fluorides, various elements, and volatile organic compounds (VOC's). All sampling and analysis followed methodologies dictated by the National Institute of Occupational Safety and Health (NIOSH) and by the Occupational Safety and Health Administration (OSHA). A certified Industrial Hygienist did the sample collection and independent labs conducted all analytical work.
Data collected was evaluated and compared to limits set by the American Conference of Governmental Industrial Hygienis ts (ACGIH) and OSHA. As a worse case scenario, calculations were completed based on a sealed 800 ft3 room with no ventilation. These calculations would indicate that the copper fume PEL would be the limiting factor. Under normal outdoor use or in ventilated areas threshold limits are beyond any expected exposure limits.

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
7429-90-5	Aluminum, metal, respirable fraction	Al	5 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum, metal, total dust	Al	15 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum metal, respirable fraction	-	1 mg/m3	TWA	A4	ACGIH
7440-21-3	Silicon, respirable fraction	-	5 mg/m3	TWA	-	OSHA
7440-21-3	Silicon, total dust	-	15 mg/m3	TWA	-	OSHA
7440-31-5	Tin, metal	Sn	2 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, dusts and mists	Cu	1 mg/m3	TWA	-	OSHA
7440-50-8	Copper, fume	Cu	0.1 mg/m3	TWA	-	OSHA
7440-50-8	Copper dusts and mists	Cu	1 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, fume	-	0.2 mg/m3	TWA	-	ACGIH
-	Fluorides	F	2.5 mg/m3	TWA	-	OSHA
-	Fluorides	F	2.5 mg/m3	TWA	A4; BEI	ACGIH

Notes: A4: Not Classifiable as a Human Carcinogen.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust and fumes.

Personal protection: Personal protection equipment should be chosen according to the relevant standards and in discussion with the supplier of the personal protective equipment. Use special welding equipment for protection of eyes, skin and respiratory system.

Respiratory equipment: Normal use precludes use of special protection as material is generally used out of doors, in small quantities and is of short duration. In case of inadequate ventilation and work of long duration or on large surface areas in confined rooms. Wear suitable respiratory equipment for dusts and metal fumes.

Hand protection: Heat insulated protective gloves. Recommended for handling hot equipment.

Eye protection: Wear goggles/face shield. Avoid direct eye contact with ”flash” of light from reaction.

Skin protection: Use protective clothing, which covers arms and legs.

Hygiene measures: Wash hands after handling. Change contaminated clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form:	Granular.
Color:	Gray-black
Odor:	Odorless.
pH:	Not available.
Melting point / freezing point:	2000°F
Boiling point:	Not available.
Evaporation rate:	Not relevant.
Vapor pressure:	Not relevant.
Vapor density:	Not relevant.
Solubility:	Insoluble in water
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature (°C):	> 1750°F
Decomposition temperature (°C):	Not available.
Viscosity:	Not relevant.
Explosive properties:	Not available.
Oxidizing properties:	Not available.

Other information

Other data:	SPECIFIC GRAVITY (water=1): 5.5

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: See hazardous reactions.

Chemical stability

Stability: Stable. Not sensitive to vibrations, shock or impact and is not subject to spontaneous ignition.

Possibility of hazardous reactions

Hazardous Reactions: Aggressive reactions are possible if excess moisture is present in the mold or on the conductors to be welded. Care should be taken to ensure proper preparation in accordance with instruction prints.

Conditions to avoid

Conditions/materials to avoid: Temperatures above ignition point. 1750°F

Incompatible materials

Incompatible materials: Typical of problems associated with molten metals.

Hazardous decomposition products

Hazardous decomposition products: None under normal conditions. Polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Dust may irritate throat and respiratory system and cause coughing. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Skin contact: Dust has an irritating effect on moist skin. Prolonged and/or repeated contact: May cause eczema-like skin disorders (dermatitis). The molten product can cause serious burns.

Eye contact: Particles/fumes in the eyes may cause discomfort/irritation.

Ingestion: Ingestion may cause nausea, headache, dizziness and intoxication.
Dicopper oxide: LD50 > 500 mg/kg

Specific effects: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Copper oxide may by repeated or prolonged inhalation occasionally cause ulceration and perforation of the nasal septum. Long term exposure to copper containing dusts may cause allergic dermatitis.
This product contains no ingredient listed on the NTP, OSHA or IARC carcinogen lists.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Dicopper oxide: EC50 (Daphnia magna, 48 hours): 0.51 mg/l

Persistence and degradability

Degradability: The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: The product is not volatile but may be spread by dust-raising handling.

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

The product material has been tested by independent facilities in accordance with D.O.T. / U.N. CFR 49 and I.A.T.A. Dangerous Goods Regulations to determine the applicable ratings of this material. Based on the results of this testing, the exothermic mixture contained within the CADWELD PLUS unit and the unit itself is not classified as a flammable solid. These findings indicate that no special package label and no special restrictions apply for transport or shipping of this material by motor vehicle, rail car, sea or air.

UN number

UN-No: -

UN proper shipping name

Proper Shipping Name: -

Transport hazard class(es)

Class: -

Packing group

PG: -

Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

Special precautions for user

Special precautions: -

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: -

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions:

State and local regulation may apply.
TSCA: The ingredients of this product are on the TSCA Inventory.
SARA Section 302: No
SARA Section 313: Yes

NFPA Rating: Health:2 Fire:1 Reactivity:1 Other:-
HMIS Rating: Health:2 Fire:1 Reactivity:1 Personal protection:B

B = Safety Glasses and Gloves.

National regulation:

The following lists have been checked:
Threshold Limit Values (2014), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.
NIOSH Pocket Guide to Chemical Hazards.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Hazard Communication, with amendments.
U.S. Department of health and human services: 2014 - Report on Carcinogens - 13th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.
Threshold Limit Values (2015), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and Notification.
The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release Reporting: Community Right to Know.

Chemical Safety Assessment in compliance with Regulation (EC) No 1907/2006 (REACH)

CSA status:

Not relevant.

SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1-16

Abbreviations and acronyms used in the safety data sheet:	PBT = Persistent, Bioaccumulative and Toxic. vPvB = very Persistent and very Bioaccumulative.
Wording of H-statements:	
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: CADWELD® Starting Material

Inclusive of material types: F20, F80, F33, XF19, F76, RBF, Aluminum.
Applicable prefixes: CA, SB, PB, XF, ACB, ACC, RBF

Relevant identified uses of the substance or mixture and uses advised against

Application: Exothermic Welding material

Details of the supplier of the safety data sheet

Manufacturer

ERICO International Corporation
34600 Solon Road
Solon, Ohio 44139
Tel:(440) 248-0100

Emergency telephone number

Emergency telephone:

Chemtel
1-800-255-3924 USA
+01-813-248-0585 International

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

This product is not sold separately. The following information is provided in regards to the final product making use of Starting Material as its ignition component.

OSHA 2012: Flammable Solid, category 2;H228 - Acute Toxicity, category 4;H302

Label elements

WARNING

H228	Flammable solid.
H302	Harmful if swallowed.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust/fume
P280	Wear eye protection and gloves.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local regulations.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P330	Rinse mouth.

Other hazards

Other: Improper use of the product or inadequate preparation of the conductors, molds or surroundings can result in aggressive reactions. Self-propagating high temperature reaction will occur if heated above ignition temperature. Generates molten metal in excess of 2500ºF (1370ºC), slag and dense, dusty smoke. The molten product can cause serious burns. Inhalation of powder or fumes may cause metal fume fever. Exposure to reaction by-products: See section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Only classified substances above threshold limits are shown.

OSHA 2012:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
30-60	7429-90-5	231-072-3	01-2119529243-45-	Aluminium powder (stabilised)	Water-react. 2;H261 Flam. Sol. 1;H228	
1-30	1317-38-0	215-269-1	01-2119502447-44-	Copper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 3;H412	M = 1
1-<25	1317-39-1	215-270-7	01-2119513794-36-	Dicopper oxide	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	M = 1

Notes: M: M-Factor

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Molten product will cause skin burns and if in contact with eyes while in a molten state may cause serious damage.

Inhalation: Inhalation of welding fumes/Dust inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. If material is hot, treat for thermal burns and get immediate medical attention.

Eye contact: Dust in the eyes: Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: Inhalation of powder or fumes may cause metal fume fever. Symptoms like headache, fatigue and nausea may appear. See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Burns (in contact with molten metal, slag or hot equipment): Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with dry sand and/or flood with large amounts of water.

Extinguishing media which are not suitable: Hand water buckets or hand storage pumps. Molten metal contact with water can cause small pockets of superheated steam.

Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture

Specific hazards: During fire, health hazardous gases may be formed.
Ignition temperature: 850°F

The ignition of the packaging materials may, in rare cases, lead to ignition. Direct application of water is not recommended. This product makes use of fine grade aluminums that have the potential to have adverse chemical reactions if exposed to large volumes of water. These reactions can result in evolution of hydrogen gas that can significantly increase fire intensity and potential "explosion" hazards.

Ignition of large quantities of exothermic materials may result in large volumes of dense smoke.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

Remove sources of ignition. Ventilate well.

Environmental precautions

Environmental precautions: Precaution should be taken to prevent hot material and reaction byproducts from contact with combustible materials in surrounding areas. Avoid spreading dust or contaminated materials. Avoid discharge to the aquatic environment. Contact local authorities in case of spillage to drain/aquatic environment.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Sweep up spilled substance and remove to safe place.
For large spills use natural fiber brush or broom with a conductive, non-sparking pan.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice:	Avoid inhalation of dust. Do not breathe fumes. Avoid contact with skin and eyes. Observe good chemical hygiene practices. CADWELD Exothermic Welding Materials and Filler Materials are designed for use in CADWELD equipment only. Use of improper or damaged equipment can lead to exposure to molten metal and reaction byproducts.
Technical measures:	Do not smoke or use open fire or other sources of ignition. Work practice should minimize risk of contact. All product instructions should be followed to ensure proper welding and safety. For additional information, see American National Standard, Safety In Welding And Cutting, and Z49.1.
Technical precautions:	Confined space: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage:	CADWELD Electrical Welding Materials and Filler Materials should be stored in a clean, dry and secure location. Storage should include provisions to minimize rough handling, excessive vibration and physical abuse. All outer packages must be stored in accordance with label markings. Follow the rules for storage of flammable products.
Storage conditions:	If evidence is present of damaged or contaminated products, these units should not be used. If proper storage is maintained, CADWELD Materials do not exhibit any storage or shelf life.

Specific end use(s)

Specific use(s):	Welding material

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

A detailed fume analysis was conducted on CADWELD Starting Material. Reaction byproducts were tested for total dust, respirable dust, metals, acids, fluorides, and various elements identified in typical welding fume analysis. All sampling and analysis followed methodologies dictated by the National Institute of Occupational Safety and Health (NIOSH) and by the Occupational Safety and Health Administration (OSHA). A certified Industrial Hygienist did the sample collection and independent labs conducted all analytical work.
Data collected was evaluated and compared to limits set by the American Conference of Governmental Industrial Hygienists (ACGIH) and OSHA. No threshold limits are attainable with use of this product as intended.

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
7429-90-5	Aluminum, metal, respirable fraction	Al	5 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum, metal, total dust	Al	15 mg/m3	TWA	-	OSHA
7429-90-5	Aluminum metal, respirable fraction	-	1 mg/m3	TWA	A4	ACGIH
7440-50-8	Copper, dusts and mists	Cu	1 mg/m3	TWA	-	OSHA
7440-50-8	Copper dusts and mists	Cu	1 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, fume	-	0.2 mg/m3	TWA	-	ACGIH
7440-50-8	Copper, fume	Cu	0.1 mg/m3	TWA	-	OSHA
1309-37-1	Iron oxide fume	-	10 mg/m3	TWA	-	OSHA
-	Iron oxide (Fe2O3), respirable fraction	-	5 mg/m3	TWA	A4	ACGIH

Notes: A4: Not Classifiable as a Human Carcinogen.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust and fumes.

Personal protection: Personal protection equipment should be chosen according to the relevant standards and in discussion with the supplier of the personal protective equipment. Use special welding equipment for protection of eyes, skin and respiratory system.

Respiratory equipment: Normal use precludes use of special protection as material is generally used out of doors, in small quantities and is of short duration. In case of inadequate ventilation and work of long duration or on large surface areas in confined rooms. Wear suitable respiratory equipment for dusts and metal fumes.

Hand protection: Heat insulated protective gloves. Recommended for handling hot equipment.

Eye protection: Wear goggles/face shield. Avoid direct eye contact with ”flash” of light from reaction.

Skin protection: Use protective clothing, which covers arms and legs.

Hygiene measures: Wash hands after handling. Change contaminated clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form:	Powder
Color:	Gray-black
Odor:	Odorless.
pH:	Not available.
Melting point / freezing point:	1220°F
Boiling point:	Not available.
Evaporation rate:	Not relevant.
Vapor pressure:	Not relevant.
Vapor density:	Not relevant.
Solubility:	Insoluble in water
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature (°C):	>850°F
Decomposition temperature (°C):	Not available.
Viscosity:	Not relevant.
Explosive properties:	Not available.
Oxidizing properties:	Not available.

Other information

Other data:	SPECIFIC GRAVITY (water=1): 4.0

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: See hazardous reactions.

Chemical stability

Stability: Stable. Not sensitive to vibrations, shock or impact and is not subject to spontaneous ignition.

Possibility of hazardous reactions

Hazardous Reactions: Aggressive reactions are possible if excess moisture is present in the mold or on the conductors to be welded. Care should be taken to ensure proper preparation in accordance with instruction prints.

Conditions to avoid

Conditions/materials to avoid: Temperatures above ignition point. 850°F

Incompatible materials

Incompatible materials: Typical of problems associated with molten metals.

Hazardous decomposition products

Hazardous decomposition products: None under normal conditions. Polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Dust may irritate throat and respiratory system and cause coughing. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Skin contact: Dust has an irritating effect on moist skin. Prolonged and/or repeated contact: May cause eczema-like skin disorders (dermatitis). The molten product can cause serious burns.

Eye contact: Particles/fumes in the eyes may cause discomfort/irritation.

Ingestion: Ingestion may cause nausea, headache, dizziness and intoxication.
Dicopper oxide: LD50 > 500 mg/kg

Specific effects: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Copper oxide may by repeated or prolonged inhalation occasionally cause ulceration and perforation of the nasal septum. Long term exposure to copper containing dusts may cause allergic dermatitis.
This product contains no ingredient listed on the NTP, OSHA or IARC carcinogen lists.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Dicopper oxide: EC50 (Daphnia magna, 48 hours): 0.51 mg/l

Persistence and degradability

Degradability: The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: The product is not volatile but may be spread by dust-raising handling.

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

Not shipped or sold separately

Due to the minimal quantity present per package, this material and the CADWELD Welding Materials and Filler Materials package is shipped under provisions outlined under D.O.T. / U.N. 49 CFR 171.1 “General Regulations for the Transportation of Hazardous Material” and 173.4 “Exceptions for Small Quantities”. All materials are packaged and marked at the factory in full compliance with these regulations.

UN number

UN-No:	3089

UN proper shipping name

Proper Shipping Name:	METAL POWDER, FLAMMABLE, N.O.S. (Aluminum powder (stabilized))

Transport hazard class(es)

Class:	4.1

Packing group

PG:	II

Environmental hazards

Marine pollutant:	-
Environmentally Hazardous substance:	-

Special precautions for user

Special precautions:	-

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk:	-

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions: State and local regulation may apply.

TSCA: The ingredients of this product are on the TSCA Inventory.
SARA Section 302: No
SARA Section 313: Yes

NFPA Rating: Health:2 Fire:1 Reactivity:1 Other:-
HMIS Rating: Health:2 Fire:1 Reactivity:1 Personal protection:B

B = Safety Glasses and Gloves.

National regulation: The following lists have been checked:
Threshold Limit Values (2014), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.
NIOSH Pocket Guide to Chemical Hazards.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Hazard Communication, with amendments.
U.S. Department of health and human services: 2014 - Report on Carcinogens - 13th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.
Threshold Limit Values (2015), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and Notification.
The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release Reporting: Community Right to Know.

Chemical Safety Assessment in compliance with Regulation (EC) No 1907/2006 (REACH)

CSA status: Not relevant.

SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 2, 3, 4, 7, 13, 14, 15, 16.

Abbreviations and acronyms used in the safety data sheet:	PBT = Persistent, Bioaccumulative and Toxic. vPvB = very Persistent and very Bioaccumulative.
Wording of H-statements:	
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	CARLON ELECTRICAL PRODUCTS ALL WEATHER QUICKSET CLEAR CEMENT
Product Numbers:	VC9981P, VC9982, VC9983, VC9984, VC9983, VC9985C, VC9983C
Product Use:	Cement for PVC Plastic Pipe
Formula:	PVC Resin in Solvent Solution
Synonyms:	PVC Plastic Pipe Cement
Firm Name & Mailing Address:	CARLON ELECTRICAL PRODUCTS c/o OATEY CO. 4700 West 160th Street P.O. Box 35906 Cleveland, Ohio 44135, U.S.A. http://www.oatey.com
Oatey Phone Number:	(216) 267-7100 or (800) 321-9532
Emergency Phone Numbers:	For Emergency First Aid call 1-303-623-5716 COLLECT. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.
Prepared By:	Corporate Director – Safety and Environmental Compliance
Preparation Date:	August 25, 2005

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	%wt/wt:	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA:	OTHER:
Tetrahydrofuran	40 - 55%	109-99-9	50 ppm(skin) 100 ppm STEL	200 ppm	25 ppm (Mfg)
PVC Resin (Non-hazardous)	12 - 24%	9002-86-2	10 mg/m3	15 mg/m3	None
Acetone	10 - 25%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None
Cyclohexanone	10 - 20%	108-94-1	20 ppm(skin) 50 ppm STEL	50 ppm	None
Amorphous Fumed Silica (Non-hazardous)	1 - 5%	112945-52-5	10 mg/m3	None Established	None
OSHA Hazard Classification:		Flammable, irritant, organ effects			

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview:
Clear liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

SECTION 4 FIRST AID MEASURES

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.

Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

SECTION 5 FIRE FIGHTING MEASURES

Flashpoint / Method:	0 - 5 Degrees F. (-18 - -15 Degrees C / PMCC
Flammability:	LEL = 1.8 % Volume, UEL = 11.8 % Volume
Extinguishing Media:	Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.
Special Fire Fighting Procedure:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored
Unusual Fire and Explosion Hazards:	Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.
Hazardous Decomposition Products:	Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures:	Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

SECTION 7 HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.
Storage:	Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.
Other:	"Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:	Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.
Respiratory Protection:	For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.
Skin Protection:	Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

Eye Protection: Safety glasses with sideshields or safety goggles.
Other: Eye wash and safety shower should be available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	151 Degrees F / 66 Degrees C
Melting Point:	Not Applicable
Vapor Pressure:	145 mmHg @ 20 Degrees C
Vapor Density:	(Air = 1) 2.5
Volatile Components:	81-85%
Solubility In Water:	Negligible
pH:	Not Applicable
Specific Gravity:	0.94 +/- 0.01 @ 20 Degrees C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0
Appearance:	Clear Liquid
Odor:	Ether-Like
Will Dissolve In:	Tetrahydrofuran
Material Is:	Liquid

SECTION 10 STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Avoid heat, sparks, flames and other sources of ignition.
Hazardous Decomposition Products:	Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.
Incompatibility/ Materials To Avoid:	Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.
Hazardous Polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Inhalation:	Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.
Skin:	May cause irritation with redness, itching and pain. Cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.
Eye:	Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.
Ingestion:	Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.
Chronic Toxicity:	Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.
Toxicity Data:	Acetone: Oral rat LD50: 5,800 mg/kg Inhalation rat LC50: 50,100 mg/m3/8 hours
	Cyclohexanone: Oral rat LD50: 1,620 mg/kg Inhalation rat LC50: 8,000 ppm/4 hours Skin rabbit LD50: 1 mL/kg
	Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg Inhalation rat LC50: 21,000 ppm/3 hours

SECTION 11 (Continued)

Sensitization:	None of the components are known to cause sensitization.
Carcinogenicity:	None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as “A3,” Confirmed Animal Carcinogens with Unknown Relevance to Humans.
Mutagenicity:	Cyclohexanone has been positive in bacterial and mammalian assays. Acetone and tetrahydrofuran are generally thought not to be mutagenic.
Reproductive Toxicity:	Cyclohexanone has been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.
Medical Conditions Aggravated By Exposure:	Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

SECTION 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.
Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.
Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.
Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information:	This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.
VOC Level:	600 g/l per SCAQMD Test Method 316A.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.
RCRA Hazardous Waste Number: U002, U057, U213
EPA Hazardous Waste ID Number: D001, F003
EPA Hazard Waste Class: Ignitable Waste.

SECTION 14 TRANSPORT INFORMATION

DOT	Less than 1 Liter (0.3 gal)	Greater than 1 Liter (0.3 gal)
Proper Shipping Name:	Consumer Commodity	Adhesives
Hazard Class/Packing Group:	ORM-D	3, PGII
UN/NA Number:	None	UN1133
Hazard Labels:	None	Flammable Liquid
IMDG		
Proper Shipping Name:	Adhesives	Adhesives
Hazard Class/Packing Group:	3, II	3, II
UN Number:	UN1133	UN1133
Label:	None (Limited Quantities are excepted from labeling)	Class 3 (Flammable Liquid)

2004 North American Emergency Response Guidebook Number: 127 or 128

SECTION 15 REGULATORY INFORMATION

Hazard Category for Section 311/312:	Acute Health, Chronic Health, Flammable
Section 302 Extremely Hazardous Substances (TPQ):	This product does not contain chemicals regulated under SARA Section 302.
Section 313 Toxic Chemicals:	This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.
CERCLA 103 Reportable Quantity:	Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (55% maximum) of 1,000 lbs, is 1,818 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.
California Proposition 65:	This product contains trace amounts of chemicals known to the State of to cause cancer. Under normal Use conditions, exposure to these chemicals at levels above the State of California “No Significant Risk Level” (NSRL) are unlikely. Oatey strongly encourages the use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 to minimize exposure to these chemicals.
TSCA Inventory:	All of the components of this product are listed on the TSCA inventory.
Canadian WHIMS Classification:	Class B, Division 2; Class D, Division 2, Subdivision B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Oatey cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	CARLON ELECTRICAL PRODUCTS STANDARD CLEAR PVC SOLVENT CEMENT
Product Numbers:	VC9961P, VC9962, VC9963, VC9964, VC9963C, VC9965C
Product Use:	Cement for PVC Plastic Pipe
Formula:	PVC Resin in Solvent Solution
Synonyms:	PVC Plastic Pipe Cement
Firm Name & Mailing Address:	CARLON ELECTRICAL PRODUCTS c/o OATEY CO. 4700 West 160th Street P.O. Box 35906 Cleveland, Ohio 44135, U.S.A. http://www.oatey.com
Oatey Phone Number:	(216) 267-7100 or (800) 321-9532
Emergency Phone Numbers:	For Emergency First Aid call 1-303-623-5716 COLLECT. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.
Prepared By:	Corporate Director – Safety and Environmental Compliance
Preparation Date:	August 25, 2005

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	%wt/wt:	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA:	OTHER:
Tetrahydrofuran	30 - 65%	109-99-9	50 ppm(skin) 100 ppm STEL	200 ppm	25 ppm (Mfg)
Methyl Ethyl Ketone	10 - 30%	78-93-3	200 ppm 300 ppm STEL	200 ppm	None
Acetone	10 - 20%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None
PVC Resin (Non-hazardous)	10 - 20%	9002-86-2	10 mg/m3	15 mg/m3	None
Cyclohexanone	7 - 13%	108-94-1	20 ppm(skin) 50 ppm STEL	50 ppm	None
Amorphous Fumed Silica (Non-hazardous)	1 - 5%	112945-52-5	10 mg/m3	None Established	None

OSHA Hazard Classification: Flammable, irritant, organ effects

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview:
Clear liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

SECTION 4 FIRST AID MEASURES

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.

Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

SECTION 5 FIRE FIGHTING MEASURES

Flashpoint / Method:	0 - 5 Degrees F. (-18 - -15 Degrees C / PMCC
Flammability:	LEL = 1.8 % Volume, UEL = 11.8 % Volume
Extinguishing Media:	Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.
Special Fire Fighting Procedure:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored
Unusual Fire and Explosion Hazards:	Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.
Hazardous Decomposition Products:	Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures:	Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

SECTION 7 HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.
Storage:	Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.
Other:	"Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:	Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.
Respiratory Protection:	For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.
Skin Protection:	Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

Eye Protection:	Safety glasses with sideshields or safety goggles.
Other:	Eye wash and safety shower should be available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	151 Degrees F / 66 Degrees C
Melting Point:	Not Applicable
Vapor Pressure:	145 mmHg @ 20 Degrees C
Vapor Density:	(Air = 1) 2.5
Volatile Components:	81-85%
Solubility In Water:	Negligible
pH:	Not Applicable
Specific Gravity:	0.94 +/- 0.01 @ 20 Degrees C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0
Appearance:	Clear Liquid
Odor:	Ether-Like
Will Dissolve In:	Tetrahydrofuran
Material Is:	Liquid

SECTION 10 STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Avoid heat, sparks, flames and other sources of ignition.
Hazardous Decomposition Products:	Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.
Incompatibility/ Materials To Avoid:	Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.
Hazardous Polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Inhalation:	Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.
Skin:	May cause irritation with redness, itching and pain. Cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.
Eye:	Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.
Ingestion:	Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.
Chronic Toxicity:	Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.
Toxicity Data:	Acetone: Oral rat LD50: 5,800 mg/kg Inhalation rat LC50: 50,100 mg/m3/8 hours
	Cyclohexanone: Oral rat LD50: 1,620 mg/kg Inhalation rat LC50: 8,000 ppm/4 hours Skin rabbit LD50: 1 mL/kg
	Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg Inhalation rat LC50: 21,000 ppm/3 hours
	Methyl Ethyl Ketone: Oral rat LD50: 2,737mg/kg Inhalation rat LC50: 23,500mg/m3/8 hours Skin rabbit LD50: 6,480 mg/kg

SECTION 11 (Continued)

Sensitization:	None of the components are known to cause sensitization.
Carcinogenicity:	None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.
Mutagenicity:	Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.
Reproductive Toxicity:	Cyclohexanone and methyl ethyl ketone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.
Medical Conditions Aggravated By Exposure:	Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

SECTION 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.
Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.
Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.
Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.
Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information:	This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.
VOC Level:	600 g/l per SCAQMD Test Method 316A.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.
RCRA Hazardous Waste Number: U002, U057, U159, U213
EPA Hazardous Waste ID Number: D001, D035, F003, F005
EPA Hazard Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

SECTION 14 TRANSPORT INFORMATION

DOT	Less than 1 Liter (0.3 gal)	Greater than 1 Liter (0.3 gal)
Proper Shipping Name:	Consumer Commodity	Adhesives
Hazard Class/Packing Group:	ORM-D	3, PGII
UN/NA Number:	None	UN1133
Hazard Labels:	None	Flammable Liquid
IMDG		
Proper Shipping Name:	Adhesives	Adhesives
Hazard Class/Packing Group:	3, II	3, II
UN Number:	UN1133	UN1133
Label:	None (Limited Quantities are excepted from labeling)	Class 3 (Flammable Liquid)

2004 North American Emergency Response Guidebook Number: 127 or 128

SECTION 15 REGULATORY INFORMATION

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302 Extremely Hazardous Substances (TPQ): This product does not contain chemicals regulated under SARA Section 302.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

Chemical	CAS #	% by wt.
Methyl Ethyl Ketone	78-93-3	10-30%

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (65% maximum) of 1,000 lbs, is 1,538 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product contains trace amounts of chemicals known to the State of to cause cancer. Under normal Use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk Level" (NSRL) are unlikely. Oatey strongly encourages the use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 to minimize exposure to these chemicals.

TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2, Subdivision B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Oatey cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

SAFETY DATA SHEET

CITGO No. 1 Diesel Fuel, All Grades

Section 1. Identification

GHS product identifier : CITGO No. 1 Diesel Fuel, All Grades

Synonyms : Diesel Fuel No. 1; K-1 Fuel Oil; Grade 1 Distillate Fuel; Kerosene; Low Sulfur Diesel Fuel.

Material uses : Fuel.

Code : 13801

MSDS # : AG1DF

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number : Technical Contact: (832) 486-4000
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
CARCINOGENICITY (dermal) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer in contact with skin.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.

Precautionary statements

General : Diesel engine exhaust can cause upper respiratory tract irritation and reversible pulmonary effects. Long-term exposure to diesel engine exhaust may cause cancer. Do not syphon by mouth.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Other means of identification : Diesel Fuel No. 1; K-1 Fuel Oil; Grade 1 Distillate Fuel; Kerosene; Low Sulfur Diesel Fuel.

CAS number/other identifiers

CAS number : 8008-20-6

Ingredient name	%	CAS number
Kerosine (petroleum)	100	8008-20-6
Cumene	0.1 - 1	98-82-8
Trimethylbenzene, all isomers	0.1 - 1	25551-13-7
Xylenes, mixed isomers	0.1 - 1	1330-20-7
Ethylbenzene	0.1 - 1	100-41-4
Naphthalene	0.1 - 1	91-20-3

* = Various ** = Mixture *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Extinguishing media

Section 5. Fire-fighting measures

Suitable extinguishing media : Use caution when applying carbon dioxide in confined spaces. SMALL FIRE: Steam, CO_2, dry chemical or inert gas (e.g., nitrogen). LARGE FIRE: Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, ignition or explosion.

Unsuitable extinguishing media : Do not use water jet.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Diesel engine exhaust

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Non equilibrium conditions may increase the fire hazard associated with this product. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards. Carefully review operations that may increase the risks such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep nozzle in contact with the container throughout the loading process. Do NOT fill any portable container in or on a vehicle.

Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e., loading this material in tanks or shipping compartments that previously contained a dissimilar product).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Kerosine (petroleum)	**ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Naphthalene	**ACGIH (United States). Absorbed through skin.** TWA: 10 ppm 8 hours. STEL: 15 ppm 15 minutes. **OSHA (United States).** TWA: 10 ppm 8 hours. **ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 10 ppm 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 52 mg/m³ 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Xylenes, mixed isomers	**ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Avoid skin contact with liquid. Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: Heavy duty, industrial grade chemically resistant gloves constructed of nitrile, neoprene, polyethylene, fluoroelastomer rubber or polyvinyl chloride as approved by glove manufacturer. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Leather gloves are not protective for liquid contact.

Body protection : Avoid skin contact with liquid. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.

Section 8. Exposure controls/personal protection

Respiratory protection : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If an air purifying respirator is appropriate, use one equipped with cartridges rated for organic vapors.

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Colorless to light yellow. Clear.

Odor : Characteristic.

pH : Not available.

Melting point : -20°C (-4°F)

Boiling point/boiling range : 150 to 300°C (302 to 572°F)

Flash point : Closed cup: 38°C (100.4°F) [Pensky-Martens. (Minimum)]

Evaporation rate : 0.2 (butyl acetate = 1)

Lower and upper explosive (flammable) limits : Lower: 0.7%
Upper: 5%

Vapor pressure : <0.27 kPa (<2 mm Hg) [room temperature]

Vapor density : 4.5 [Air = 1]

Relative density : 0.8

Density lbs/gal : Estimated 6.67 lbs/gal

Gravity, °API : Estimated 45 @ 60 F

Solubility : Very slightly soluble in the following materials: cold water.

Auto-ignition temperature : 229°C (444.2°F)

Viscosity : Kinematic (room temperature): 0.01 cm^2/s (1 cSt)

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Do not store with strong oxidizing agents.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Kerosine (petroleum)	LD50 Oral	Rat	15 g/kg	-
Naphthalene	LD50 Oral	Rat	490 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Xylenes, mixed isomers	LC50 Inhalation Gas.	Cat	9500 ppm	2 hours
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-

Conclusion/Summary : No additional information.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kerosine (petroleum)	Skin - Moderate irritant	Rabbit	-	0.5 Mililiters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 Percent	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 milligrams	-
Ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Xylenes, mixed isomers	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-

Skin : No additional information.

Eyes : No additional information.

Respiratory : No additional information.

Sensitization

Skin : No additional information.

Respiratory : No additional information.

Mutagenicity

Conclusion/Summary : No additional information.

Carcinogenicity

Conclusion/Summary : **Diesel exhaust particulate**: Lung tumor and lymphomas were identified in rats and mice exposed to unflitered diesel fuel exhaust in chronic inhalation studies. Further, epidemiological studies have identified increase incidences of lung cancer in US railroad workers and bladder cancer in bus and truck drivers possibly associated with exposure to diesel engine exhaust. NTP has determined that exposure to diesel exhaust particulates, a complex mixture of combustion products of diesel fuel, is reasonably anticipated to be a human carcinogen. In addition, NIOSH has identified complete diesel exhaust as a potential carcinogen.

Classification

Product/ingredient name	OSHA	IARC	NTP
Kerosine (petroleum)	-	3	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-
Xylenes, mixed isomers	-	3	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.

Section 11. Toxicological information

Reproductive toxicity

Conclusion/Summary : No additional information.

Teratogenicity

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Kerosine (petroleum)	Category 3	Not applicable.	Narcotic effects
CITGO No. 1 Diesel Fuel, All Grades	Category 3	Not applicable.	Respiratory tract irritation
Cumene	Category 3	Not applicable.	Respiratory tract irritation
Trimethylbenzene, all isomers	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Trimethylbenzene, all isomers	Category 2	Not determined	central nervous system (CNS)
Xylenes, mixed isomers	Category 2	Not determined	hearing organs

Aspiration hazard

Name	Result
Kerosine (petroleum)	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Potential chronic health effects

Section 11. Toxicological information

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer in contact with skin. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Kerosine (petroleum)	Acute EC50 1.4 mg/l	Daphnia	48 hours
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 10600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Trimethylbenzene, all isomers	Acute LC50 5600 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Xylenes, mixed isomers	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Naphthalene	Acute EC50 1.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Cumene	3.55	94.69	low
Trimethylbenzene, all isomers	3.4 to 3.8	-	low
Xylenes, mixed isomers	3.12	8.1 to 25.9	low
Ethylbenzene	3.6	-	low
Naphthalene	3.4	36.5 to 168	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D001, D018

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA 1993	UN 1202	UN 1202
UN proper shipping name	NA 1993, Diesel Fuel, 3, PG III	UN 1202, Diesel Fuel, 3, PG III	UN 1202, Diesel Fuel, 3, PG III
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Additional information	**Packaging instruction** **Passenger aircraft** Quantity limitation: 60 L Packaging instructions: 309 **Cargo aircraft** Quantity limitation: 220 L Packaging instructions: 310 **Remarks** 49 CFR 173.150 (f)(1) states that a flammable liquid with a	-	**Cargo Aircraft Only**Quantity limitation: 220 L Packaging instructions: 310 **Limited Quantities - Passenger Aircraft**Quantity limitation: 60 L Packaging instructions: 60

Section 14. Transport information

	flash point at or above 38ºC (100ºF) that does not meet the definition of any other hazard class may be reclassed as a combustible liquid. This provision does not apply to transportation by vessel or aircraft except where other means of transportaion is impracticable.		

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

Clean Water Act (CWA) 307: Naphthalene; Ethylbenzene; Toluene; Benzene

Clean Water Act (CWA) 311: Naphthalene; Ethylbenzene; Xylenes, mixed isomers; Toluene; Benzene

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Kerosine (petroleum)	Yes.	No.	No.	Yes.	Yes.
Naphthalene	Yes.	No.	No.	Yes.	Yes.
Trimethylbenzene, all isomers	Yes.	No.	No.	Yes.	Yes.
Ethylbenzene	Yes.	No.	No.	Yes.	Yes.
Xylenes, mixed isomers	Yes.	No.	No.	Yes.	Yes.
Cumene	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Naphthalene Ethylbenzene	91-20-3 100-41-4	<1 <1
Supplier notification	Naphthalene Ethylbenzene	91-20-3 100-41-4	<1 <1

Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: KEROSINE

New York : The following components are listed: Naphthalene; Ethylbenzene; Cumene; Benzene, 1-methylethyl-

New Jersey : The following components are listed: KEROSENE; FUEL OIL #1

Pennsylvania : The following components are listed: KEROSINE (PETROLEUM)

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Diesel exhaust particulate	-	Yes.	No.	No.	No.
Naphthalene	<1	Yes.	No.	Yes.	No.
Ethylbenzene	<1	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Toluene	<0.1	No.	Yes.	No.	7000 µg/day (ingestion)
Benzene	<0.1	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)

International regulations

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Canada inventory : All components are listed or exempted.

EU Inventory : All components are listed or exempted.

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2B: Material causing other toxic effects (Toxic).

Section 16. Other information

National Fire Protection Association (U.S.A.)

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Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 12/10/2015

Key to abbreviations :
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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SAFETY DATA SHEET

CITGO No. 2 Diesel Fuel, Low Sulfur, All Grades

Section 1. Identification

GHS product identifier : CITGO No. 2 Diesel Fuel, Low Sulfur, All Grades

Chemical name : Fuels, diesel, No 2

Synonyms : No. 2-D Grade Diesel Fuel Oil (defined by ASTM D-975); Treated or Refined Diesel Fuel No. 2; Grade 2 Distillate Fuel; Hydrodesulfurized Middle Distillate; C9-C16 Petroleum Hydrocarbons

Code : Various

MSDS # : AG2DF

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number : Technical Contact: (832) 486-4000
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY: INHALATION - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [central nervous system (CNS)] - Category 2
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Harmful if inhaled.
Causes skin and eye irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Fuels, diesel, No 2

Other means of identification : No. 2-D Grade Diesel Fuel Oil (defined by ASTM D-975); Treated or Refined Diesel Fuel No. 2; Grade 2 Distillate Fuel; Hydrodesulfurized Middle Distillate; C9-C16 Petroleum Hydrocarbons

CAS number/other identifiers

CAS number : 68476-34-6

Ingredient name	%	CAS number
Ethyltoluene	<3	25550-14-5
Trimethylbenzene, all isomers	<2	25551-13-7
Naphthalene	<2	91-20-3
Biphenyl	<2	92-52-4
Cumene	<1	98-82-8
Xylenes, mixed isomers	<1	1330-20-7
Ethylbenzene	<1	100-41-4

* = Various ** = Mixture *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Harmful if inhaled. Long-term exposure to diesel engine exhaust may cause cancer.

Skin contact : Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable extinguishing media : Use dry chemical, carbon dioxide (CO_2,) water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Diesel engine exhaust

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Non equilibrium conditions may increase the fire hazard associated with this product. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone

Section 7. Handling and storage

may be inadequate to eliminate fire and explosion hazards. Carefully review operations that may increase the risks such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities.
Always keep nozzle in contact with the container throughout the loading process. Do NOT fill any portable container in or on a vehicle.

Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e., loading this material in tanks or shipping compartments that previously contained a dissimilar product).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Trimethylbenzene, all isomers	**ACGIH TLV (United States, 4/2014).** TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.
Naphthalene	**ACGIH (United States). Absorbed through skin.** TWA: 10 ppm 8 hours. STEL: 15 ppm 15 minutes. **OSHA (United States).** TWA: 10 ppm 8 hours. **ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.
Biphenyl	**OSHA PEL Z2 (United States).** TWA: 0.2 ppm 8 hours. **ACGIH TLV (United States, 4/2014).** TWA: 0.2 ppm 8 hours. TWA: 1.3 mg/m³ 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 0.2 ppm 8 hours. TWA: 1 mg/m³ 8 hours.
Cumene	**ACGIH TLV (United States, 4/2014).** TWA: 50 ppm 8 hours. **OSHA PEL (United States, 2/2013). Absorbed through**

Section 8. Exposure controls/personal protection

	skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.
Xylenes, mixed isomers	**ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. chemical splash goggles. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Colorless to light yellow or red.

Odor : Characteristic.

pH : Not available.

Melting point : -30 to -18°C (-22 to -0.4°F)

Boiling point/boiling range : 282 to 338°C (539.6 to 640.4°F)

Flash point : Closed cup: 52°C (125.6°F) [Pensky-Martens.]

Evaporation rate : <1 (butyl acetate = 1)

Lower and upper explosive (flammable) limits : Lower: 0.6%
Upper: 6.5%

Vapor pressure : 0.27 kPa (2 mm Hg) [room temperature]

Vapor density : 5 [Air = 1]

Relative density : 0.84

Density lbs/gal : Estimated 7 lbs/gal

Gravity, °API : Estimated 37 @ 60 F

Solubility : Very slightly soluble in the following materials: cold water.

Solubility in water : 0.005 g/l

Partition coefficient: n-octanol/water : >3.3

Auto-ignition temperature : 254 to 285°C (489.2 to 545°F)

Viscosity : Kinematic (room temperature): 0.03 cm^2/s (3 cSt)

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Trimethylbenzene, all isomers	LD50 Oral	Rat	8970 mg/kg	-
Naphthalene	LD50 Oral	Rat	490 mg/kg	-
Biphenyl	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2140 mg/kg	-
Cumene	LC50 Inhalation Vapor	Mouse	10 g/m³	7 hours
	LD50 Dermal	Rabbit	12300 uL/kg	-
	LD50 Oral	Rat	2.9 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Xylenes, mixed isomers	LC50 Inhalation Gas.	Cat	9500 ppm	2 hours
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Conclusion/Summary : No additional information.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Trimethylbenzene, all isomers	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 milligrams	-
Biphenyl	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 microliters	-
Cumene	Eyes - Mild irritant	Rabbit	-	86 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
Xylenes, mixed isomers	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

Skin : No additional information.

Eyes : No additional information.

Respiratory : No additional information.

Sensitization

Skin : No additional information.

Respiratory : No additional information.

Mutagenicity

Conclusion/Summary : No additional information.

Carcinogenicity

Conclusion/Summary :

Section 11. Toxicological information

Diesel exhaust particulate: Lung tumor and lymphomas were identified in rats and mice exposed to unflitered diesel fuel exhaust in chronic inhalation studies. Further, epidemiological studies have identified increase incidences of lung cancer in US railroad workers and bladder cancer in bus and truck drivers possibly associated with exposure to diesel engine exhaust. NTP has determined that exposure to diesel exhaust particulates, a complex mixture of combustion products of diesel fuel, is reasonably anticipated to be a human carcinogen. In addition, NIOSH has identified complete diesel exhaust as a potential carcinogen.

Classification

Product/ingredient name	OSHA	IARC	NTP
Fuels, diesel, No 2	-	3	-
Diesel exhaust particulate	-	1	Reasonably anticipated to be a human carcinogen.
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.
Xylenes, mixed isomers	-	3	-
Ethylbenzene	-	2B	-

Reproductive toxicity

Conclusion/Summary : No additional information.

Teratogenicity

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Trimethylbenzene, all isomers	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Biphenyl	Category 3	Not applicable.	Respiratory tract irritation
Cumene	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Fuels, diesel, No 2	Category 2	Not determined	central nervous system (CNS)
Trimethylbenzene, all isomers	Category 2	Not determined	central nervous system (CNS)
Xylenes, mixed isomers	Category 2	Not determined	ears

Aspiration hazard

Name	Result
Trimethylbenzene, all isomers	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
propylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Harmful if inhaled. Long-term exposure to diesel engine exhaust may cause cancer.

Skin contact : Causes skin irritation.

Section 11. Toxicological information

Ingestion : May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Trimethylbenzene, all isomers	Acute LC50 5600 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Naphthalene	Acute EC50 1600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
	Chronic NOEC 0.67 ppm Fresh water	Fish - Oncorhynchus kisutch	40 days
Biphenyl	Acute LC50 360 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1450 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.17 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.229 mg/l Fresh water	Fish - Oncorhynchus mykiss	87 days
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 10600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Xylenes, mixed isomers	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus -	96 hours

Section 12. Ecological information

		Juvenile (Fledgling, Hatchling, Weanling)	
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

Conclusion/Summary : Not available.

Persistence and degradability

Not available.

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Fuels, diesel, No 2	>3.3	-	low
Trimethylbenzene, all isomers	3.4 to 3.8	-	low
Naphthalene	3.4	36.5 to 168	low
Biphenyl	4.008	1900	high
Cumene	3.55	94.69	low
Xylenes, mixed isomers	3.12	8.1 to 25.9	low
Ethylbenzene	3.6	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D001, D018

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	UN 1202	UN 1202
UN proper shipping name	NA 1993, Diesel Fuel, 3, PG III	UN 1202, Diesel Fuel, 3, PG III	UN 1202, Diesel Fuel, 3, PG III
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Additional information	**Packaging instruction** **Passenger aircraft** Quantity limitation: 60 L Packaging instructions: Y309 **Cargo aircraft** Quantity limitation: 220 L Packaging instructions: 310 **Remarks** 49 CFR 173.150 (f)(1) states that a flammable liquid with a flash point at or above 38ºC (100ºF) that does not meet the definition of any other hazard class may be reclassed as a combustible liquid. This provision does not apply to transportation by vessel or aircraft except where other means of transportaion is impracticable.	-	**Cargo Aircraft Only**Quantity limitation: 220 L Packaging instructions: 310 **Limited Quantities - Passenger Aircraft**Quantity limitation: 60 L Packaging instructions: 309Y

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

Clean Water Act (CWA) 307: Ethylbenzene; Naphthalene; Toluene; Benzene

Clean Water Act (CWA) 311: Ethylbenzene; Xylenes, mixed isomers; Naphthalene; Toluene; Benzene

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

Section 15. Regulatory information

SARA 302/304

Composition/information on ingredients

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fuels, diesel, No 2	Yes.	No.	No.	Yes.	Yes.
Trimethylbenzene, all isomers	Yes.	No.	No.	Yes.	Yes.
Naphthalene	Yes.	No.	No.	Yes.	Yes.
Biphenyl	No.	No.	No.	Yes.	No.
Cumene	Yes.	No.	No.	Yes.	Yes.
Xylenes, mixed isomers	Yes.	No.	No.	Yes.	Yes.
Ethylbenzene	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Naphthalene Ethylbenzene	91-20-3 100-41-4	<1 <1
Supplier notification	Naphthalene Ethylbenzene	91-20-3 100-41-4	<1 <1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Trimethylbenzene, all isomers; Ethyltoluene

New York : The following components are listed: Ethylbenzene; Cumene; Benzene, 1-methylethyl-; Naphthalene

New Jersey : The following components are listed: Ethylbenzene; Cumene; NAPHTHALENE; TRIMETHYL BENZENE (mixed isomers); BENZENE, TRIMETHYL-; ETHYLTOLUENES; BENZENE, ETHYLMETHYL-

Pennsylvania : The following components are listed: Ethylbenzene; Cumene; NAPHTHALENE; Trimethylbenzene, all isomers; Ethyltoluene

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	<1	Yes.	No.	Yes.	No.
Cumene	<1	Yes.	No.	No.	No.
Ethylbenzene	<1	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Diesel exhaust particulate	<1	Yes.	No.	No.	No.
Toluene	<0.1	No.	Yes.	No.	7000 µg/day (ingestion)
Benzene	<0.1	Yes.	Yes.	6.4 µg/day (ingestion)	24 µg/day (ingestion) 49 µg/day

Section 15. Regulatory information

				13 µg/day (inhalation)	(inhalation)

International regulations

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Canada inventory : All components are listed or exempted.

EU Inventory : All components are listed or exempted.

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2A: Material causing other toxic effects (Very toxic).

Section 16. Other information

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 7/29/2015.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

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Section 16. Other information

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SAFETY DATA SHEET

Resolute® High Mileage Motor Oil, SAE 10W-30

Section 1. Identification

GHS product identifier : Resolute® High Mileage Motor Oil, SAE 10W-30

Synonyms : Not available.

Code : 620893173

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number : Technical Contact: (800) 248-4684
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Avoid contact with eyes, skin and clothing. May be harmful if swallowed. IF IN EYES: Rinse cautiously with water for several minutes. If swallowed, do not induce vomiting. After handling, always wash hands thoroughly with soap and water. If you feel unwell, seek medical attention and show the label when possible. Keep out of reach of children.

Prevention : Not applicable.

Response : Not applicable.

Storage : Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Any concentration shown as a range is to protect confidentiality or is due to process variation.

Section 3. Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None identified.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Amber to dark amber

Odor : Mild petroleum odor

pH : Not available.

Boiling point : Not available.

Flash point : Open cup: 231°C (447.8°F) [Cleveland.]

Evaporation rate : <1 (butyl acetate = 1)

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : <0.0013 kPa (<0.01 mm Hg) [room temperature]

Vapor density : >1 [Air = 1]

Relative density : 0.88

Density lbs/gal : Estimated 7.34 lbs/gal

Gravity, °API : Estimated 29 @ 60 F

Solubility : Insoluble in the following materials: cold water.

Section 9. Physical and chemical properties

Viscosity : Kinematic (40°C (104°F)): 0.735 cm^2/s (73.5 cSt)

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/Summary : **Distillates (petroleum), hydrotreated heavy paraffinic**: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. **Distillates (petroleum), solvent-dewaxed heavy paraffinic**: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.

Irritation/Corrosion

Skin : No additional information.

Eyes : No additional information.

Respiratory : No additional information.

Sensitization

Skin : No additional information.

Respiratory : No additional information.

Mutagenicity

Conclusion/Summary : No additional information.

Carcinogenicity

Conclusion/Summary : No additional information.

Reproductive toxicity

Conclusion/Summary : No additional information.

Teratogenicity

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Not available.

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

Clean Water Act (CWA) 307: zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate); Zinc alkyl dithiophosphate

Clean Water Act (CWA) 311: vinyl acetate

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
vinyl acetate	<0.01	Yes.	1000	129	5000	644.8
sulphur dioxide	<0.001	Yes.	500	-	500	-

SARA 304 RQ : 61728395.1 lbs / 28024691.4 kg [8412886.6 gal / 31846240.2 L]

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
sulphur dioxide	<0.001	No.	Yes.	No.	Yes.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Canada inventory : All components are listed or exempted.

EU Inventory : At least one component is not listed in EINECS but all such components are listed in ELINCS.
Please contact your supplier for information on the inventory status of this material.

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Section 16. Other information

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Section 16. Other information

History

Date of issue/Date of revision : 12/2/2014.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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SAFETY DATA SHEET

CITGO TRANSGARD® DEXRON®-VI ATF

Section 1. Identification

GHS product identifier : CITGO TRANSGARD® DEXRON®-VI ATF

Synonyms : Automatic Transmission Fluid

Material uses : Transmission oil

Code : 633140001

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number (with hours of operation) : Technical Contact: (800) 248-4684
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Avoid contact with eyes, skin and clothing. Thoroughly wash exposed areas and clothing with soap and water. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: Do not induce vomiting. If you feel unwell, seek medical attention and show the label when possible. Keep out of reach of children.

Prevention : Not applicable.

Response : Not applicable.

Storage : Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Automatic Transmission Fluid

CAS number/other identifiers

CAS number : Not applicable.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥25 - ≤50	64742-54-7
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≥25 - ≤50	72623-87-1
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≤3	64742-65-0

* = Various ** = Mixture *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 7. Handling and storage

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Distillates (petroleum), hydrotreated heavy paraffinic	**ACGIH TLV (United States, 3/2016).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	**NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **ACGIH TLV (United States).** TWA: 5 mg/m **OSHA PEL (United States).** TWA: 5 mg/m³
Distillates (petroleum), solvent-dewaxed heavy paraffinic	**ACGIH TLV (United States, 3/2016).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Other skin protection : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.

Respiratory protection : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Red.

Odor : Mild petroleum odor

pH : Not available.

Boiling point : Not available.

Flash point : Open cup: 180°C (356°F) [Cleveland.]

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.848

Density lbs/gal : 7.05 lbs/gal

Density gm/cm^3 : 0.848 g/cm^3

Gravity, °API : 35.6 @ 60 F

Flow time (ISO 2431) : Not available.

Viscosity : Kinematic (40°C (104°F)): 0.282 cm^2/s (28.2 cSt)

Viscosity SUS : Estimated 131 SUS @104 F

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : **Distillates (petroleum), hydrotreated heavy paraffinic**: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. **Distillates (petroleum), solvent-dewaxed heavy paraffinic**: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.

Irritation/Corrosion

Not available.

Skin : No additional information.

Eyes : No additional information.

Respiratory : No additional information.

Sensitization

Not available.

Skin : No additional information.

Respiratory : No additional information.

Mutagenicity

Not available.

Conclusion/Summary : No additional information.

Carcinogenicity

Not available.

Conclusion/Summary : No additional information.

Reproductive toxicity

Not available.

Conclusion/Summary : No additional information.

Teratogenicity

Not available.

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Section 11. Toxicological information

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Not available.

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Not available.

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Oil: The product(s) represented by this SDS is (are) regulated as “oil” under 49 CFR Part 130. Shipments by rail or highway in packaging having a capacity of 3500 gallons or more or in a quantity greater 42,000 gallons are subject to these requirements. In addition, mixtures containing 10% or more of this product may be subject to these requirements.

Special precautions for user : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

International regulations

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

Inventory list

United States : All components are listed or exempted.

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : At least one component is not listed in EINECS but all such components are listed in ELINCS.
Please contact your supplier for information on the inventory status of this material.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

Viet Nam : Not determined.

Section 16. Other information

National Fire Protection Association (U.S.A.)

Section 16. Other information

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Procedure used to derive the classification

Classification	Justification
Not classified.	

History

Date of printing : 2/27/2018

Date of issue/Date of revision : 2/27/2018

Date of previous issue : No previous validation

Version : 1

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

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SAFETY DATA SHEET

CITGO Gasolines, All Grades Unleaded

Section 1. Identification

GHS product identifier : CITGO Gasolines, All Grades Unleaded

Synonyms : Unleaded Gasolines; Conventional Unleaded Gasoline with Ethanol; Unleaded Gasoline with Ethanol; Reformulated Unleaded Gasoline with Ethanol; Motor Gasolines; Petrol; Automobile Motor Fuels; Finished Gasolines; Gasoline, Regular Unleaded; Gasoline, Mid-grade Unleaded; Gasoline, Premium Unleaded; Reformulated Gasolines (RFG); Reformulated Motor Fuels; Oxygenated Motor Spirits; Gasoline, Regular Reformulated; Gasoline, Mid-grade Reformulated; Gasoline, Premium Reformulated; RBOB; GTAB; Arizona Clean Burning Gasoline (CBG); CARB Gasoline with Ethanol.

Material uses : Fuel.

Code : Various

MSDS # : UNLEAD

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number : Technical Contact: (832) 486-4000
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
GERM CELL MUTAGENICITY - Category 1B
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION [Fertility] - Category 2
TOXIC TO REPRODUCTION [Unborn child] - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [central nervous system (CNS)] - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes skin and eye irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May be fatal if swallowed and enters airways.
May cause damage to organs. (central nervous system (CNS))
May cause respiratory irritation.
May cause drowsiness and dizziness.

Section 2. Hazards identification

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or if you feel unwell: Call a POISON CENTER or physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Avoid contact with skin and clothing. Wash thoroughly after handling.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Other means of identification : Unleaded Gasolines; Conventional Unleaded Gasoline with Ethanol; Unleaded Gasoline with Ethanol; Reformulated Unleaded Gasoline with Ethanol; Motor Gasolines; Petrol; Automobile Motor Fuels; Finished Gasolines; Gasoline, Regular Unleaded; Gasoline, Mid-grade Unleaded; Gasoline, Premium Unleaded; Reformulated Gasolines (RFG); Reformulated Motor Fuels; Oxygenated Motor Spirits; Gasoline, Regular Reformulated; Gasoline, Mid-grade Reformulated; Gasoline, Premium Reformulated; RBOB; GTAB; Arizona Clean Burning Gasoline (CBG); CARB Gasoline with Ethanol.

Ingredient name	%	CAS number
Toluene	<20	108-88-3
Pentane, all isomers	<20	109-66-0
Xylenes, mixed isomers	<20	1330-20-7
Hexane, other isomers	<15	*
Heptane, all isomers	<15	142-82-5
Ethanol	0 - 10	64-17-5
Butane	0 - 10	106-97-8
Benzene	<4.9	71-43-2
Cumene	<4	98-82-8
Ethylbenzene	<4	100-41-4
n-Hexane	<3	110-54-3
Cyclohexane	<3	110-82-7
1,2,4-Trimethylbenzene	<2	95-63-6
Naphthalene	<2	91-20-3

* = Various ** = Mixture *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Breathing high concentrations can cause irregular heartbeats which can be fatal.

Skin contact : Causes skin irritation. Defatting to the skin.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Breathing high concentrations can cause irregular heartbeats which can be fatal.

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

Notes to physician : This material (or a component) may sensitize the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrthymias in individuals exposed to this material. If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Extinguishing media

Suitable extinguishing media : Use dry chemical, carbon dioxide (CO_2,) water spray (fog) or foam. SMALL FIRE: Steam, CO_2, dry chemical or inert gas (e.g., nitrogen). LARGE FIRE: Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, ignition or explosion.

Unsuitable extinguishing media : Do not use water jet.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Use only as a motor fuel. Do not syphon by mouth. Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Non equilibrium conditions may increase the fire hazard associated with this product. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards. Carefully review operations that may increase the risks such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities.
Always keep nozzle in contact with the container throughout the loading process. Do NOT fill any portable container in or on a vehicle.

Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e., loading this material in tanks or shipping compartments that previously contained a dissimilar product).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental

Section 7. Handling and storage

contamination.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Pentane, all isomers	**ACGIH TLV (United States, 4/2014).** TWA: 1000 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 2950 mg/m³ 8 hours.
Toluene	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours.
Xylenes, mixed isomers	**ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Hexane, other isomers	**ACGIH (United States).** TWA: 500 ppm 8 hours. STEL: 1000 ppm 15 minutes.
Heptane, all isomers	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.
Ethanol	**ACGIH (United States).** TWA: 1000 ppm 8 hours. **OSHA (United States).** TWA: 1000 ppm 8 hours. **ACGIH TLV (United States, 4/2014).** STEL: 1000 ppm 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.
Butane	**ACGIH (United States).** TWA: 800 ppm 8 hours. **ACGIH TLV (United States, 4/2014).** STEL: 1000 ppm 15 minutes.
Benzene	**ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 0.5 ppm 8 hours. TWA: 1.6 mg/m³ 8 hours. STEL: 2.5 ppm 15 minutes. STEL: 8 mg/m³ 15 minutes.

Section 8. Exposure controls/personal protection

	OSHA PEL (United States, 2/2013). TWA: 1 ppm 8 hours. STEL: 5 ppm 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** TWA: 10 ppm 8 hours. CEIL: 25 ppm AMP: 50 ppm 10 minutes.
Cumene	**ACGIH TLV (United States, 4/2014).** TWA: 50 ppm 8 hours. **OSHA PEL (United States, 2/2013). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
n-Hexane	**ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 50 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 500 ppm 8 hours. TWA: 1800 mg/m³ 8 hours.
Cyclohexane	**ACGIH TLV (United States, 4/2014).** TWA: 100 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 300 ppm 8 hours. TWA: 1050 mg/m³ 8 hours.
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.
Naphthalene	**ACGIH (United States). Absorbed through skin.** TWA: 10 ppm 8 hours. STEL: 15 ppm 15 minutes. **OSHA (United States).** TWA: 10 ppm 8 hours. **ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Avoid skin contact with liquid. Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: Heavy duty, industrial grade chemically resistant gloves constructed of nitrile, neoprene, polyethylene, fluoroelastomer rubber or polyvinyl chloride as approved by glove manufacturer. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Leather gloves are not protective for liquid contact.

Body protection : Avoid skin contact with liquid. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.

Respiratory protection : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If an air purifying respirator is appropriate, use one equipped with cartridges rated for organic vapors.

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Transparent, clear to amber or red.

Odor : Pungent, characteristic gasoline.

pH : Not applicable

Boiling point/boiling range : 38 to 204°C (100.4 to 399.2°F)

Flash point : Closed cup: -43°C (-45.4°F) [Tagliabue [ASTM D-56]]

Evaporation rate : 7.5 (n-butyl acetate. = 1)

Lower and upper explosive (flammable) limits : Lower: 1.4%
Upper: 7.6%

Vapor pressure : 29.3 to 60 kPa (220 to 450 mm Hg) [room temperature]

Vapor density : 3 to 4 [Air = 1]

Relative density : 0.72 to 0.77

Solubility : Very slightly soluble in the following materials: cold water.

Auto-ignition temperature : 280°C (536°F)

Viscosity : Kinematic (room temperature): <0.01 cm^2/s (<1 cSt)

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	>20 mg/l	4 hours
	LD50 Dermal	Rabbit	12267 mg/kg	-
	LD50 Oral	Rat - Male	5580 mg/kg	-
	TDLo Oral	Rat	1000 mg/kg	-
Xylenes, mixed isomers	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	6700 ppm	4 hours
	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
Hexane, other isomers	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
Heptane, all isomers	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Mouse	>40000 ppm	10 minutes
	LC50 Inhalation Vapor	Rat	124700 mg/m³	4 hours
	LD50 Oral	Guinea pig	5560 mg/kg	-
	LD50 Oral	Rabbit	6300 mg/kg	-
	LD50 Oral	Rat	7060 mg/kg	-
Butane	LC50 Inhalation Vapor	Mouse	680000 mg/m³	2 hours
	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
Benzene	LC50 Inhalation Vapor	Rat	10000 ppm	7 hours
	LD50 Oral	Mammal - species unspecified	5700 mg/kg	-
	LD50 Oral	Mouse	4700 mg/kg	-
	LD50 Oral	Rat	6400 mg/kg	-
Cumene	LC50 Inhalation Vapor	Mouse	10 g/m³	7 hours
	LD50 Dermal	Rabbit	12300 uL/kg	-
	LD50 Oral	Rat	2.9 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
n-Hexane	LC50 Inhalation Vapor	Rat	48000 ppm	4 hours
	LD50 Oral	Rat	15840 mg/kg	-
Cyclohexane	LC50 Inhalation Vapor	Mouse	70000 mg/m³	2 hours
	LD50 Oral	Rat	6240 mg/kg	-
	LD50 Oral	Rat	12705 mg/kg	-

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	LD50 Oral	Rat	>5000 mg/kg	-
	LDLo Oral	Rabbit	5500 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Mouse	6900 mg/kg	-
	LD50 Oral	Rat	5 g/kg	-
Naphthalene	LD50 Oral	Rat	490 mg/kg	-

Conclusion/Summary : **Pentane, all isomers**: Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.
Toluene: Deliberate inhalation of toluene at high concentrations (e.g., glue sniffing and solvent abuse) can cause CNS depression, cardiac arrhythmias and death.
Xylenes, mixed isomers: Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, CNS damage and narcosis. Effects may be increased by the use of alcoholic beverages. Evidence of liver and kidney impairment were reported in workers recovering from a gross over-exposure.
Heptane, all isomers: Heptane is a CNS depressant and narcosis at elevated concentrations.
Ethanol: Inhalation exposure to ethanol vapor at concentrations above applicable workplace exposure levels is expected to produce eye and mucus membrane irritation. Human exposure at concentrations from 1000 to 5000 ppm produced symptoms of narcosis, stupor and unconsciousness. Subjects exposed to ethanol vapor in concentrations between 500 and 10,000 ppm experienced coughing and smarting of the eyes and nose. At 15,000 ppm there was continuous lacrimation and coughing. While extensive acute and chronic effects can be expected with ethanol consumption, ingestion is not expected to be a significant route of exposure to this product.
Butane: Studies in laboratory animals indicate exposure to extremely high levels of butanes (1-10 or higher vol.% in air) may cause cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.
Cumene: Overexposure to cumene may cause upper respiratory tract irritation and CNS depression.
n-Hexane: n-Hexane is a CNS depressant and narcosis at elevated concentrations.
Cyclohexane: Cyclohexane is a CNS depressant and narcosis at elevated concentrations.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
Xylenes, mixed isomers	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-

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	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Benzene	Eyes - Moderate irritant	Rabbit	-	88 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Cumene	Eyes - Mild irritant	Rabbit	-	86 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
Ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
n-Hexane	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
1,2,4-Trimethylbenzene	Skin - Edema	Rabbit	3	-	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 milligrams	-

Skin : **Xylenes, mixed isomers**: May cause skin irritation.
Cyclohexane: Cyclohexane can cause eye, skin and mucous membrane irritation.

Eyes : **Xylenes, mixed isomers**: May cause eye irritation.

Respiratory : No additional information.

Sensitization

Skin : **Toluene**: Non-sensitizer to skin.

Respiratory : **Toluene**: Non-sensitizer to lungs.

Mutagenicity

Conclusion/Summary : **Heptane, all isomers**: n-heptane was not mutagenic in the Salmonella/microsome (Ames) assay.
Benzene: Some studies of workers exposed to benzene have shown an association with increased rates of chromosome aberrations in circulating lymphocytes.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Benzene	Positive - Inhalation - TD	Rat - Female	-	-

Conclusion/Summary : **Ethanol**: IARC Monograph 96 (2010) identified Ethanol in alcoholic beverages as a Group 1 carcinogen.
Benzene: Studies of workers exposed to benzene show clear evidence that over-exposure can cause cancer of the blood forming organs (acute myelogenous leukemia) and aplastic anemia. Also, studies suggest over-exposure to benzene may be associated with other types of leukemia and other blood disorders. Studies in laboratory animals indicate that prolonged, repeated exposure to high levels of benzene vapor can cause bone marrow suppression and cancer in multiple organ systems.
Ethylbenzene: Findings from a 2-year inhalation study in rodents conducted by NTP were as follows: Effects were observed only at the highest exposure level (750 ppm). At this level the incidence of renal tumors was elevated in male rats (tubular carcinomas) and female rats (tubular adenomas). Also, the incidence of tumors was elevated in male mice (alveolar and bronchiolar carcinomas) and female mice (hepatocellular carcinomas). IARC has classified ethyl benzene as “possibly carcinogenic to humans” (Group 2B).
Cumene: Studies in laboratory animals indicate evidence of adverse effects on the kidney and adrenal glands following high level exposure. The relevance of these findings to humans is not clear at this time. IARC has classified cumene as “possibly carcinogenic to humans” (Group 2B). In addition, NTP has determined cumene is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in experimental animals.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Xylenes, mixed isomers	-	3	-
Ethanol	-	1	-
Benzene	+	1	Known to be a human carcinogen.
Ethylbenzene	-	2B	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Conclusion/Summary : **Toluene**: Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Several studies of workers suggest long-term exposure may be related to small increases in spontaneous abortions and changes in some gonadotropic hormones. However, the weight of evidence does not indicate toluene is a reproductive hazard to humans. Studies in laboratory animals indicate some changes in reproductive organs following high levels of exposure, but no significant effects on mating performance or reproduction were observed. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Findings in laboratory animals were largely negative. Positive findings include small increases in minor skeletal and visceral malformations and developmental delays following very high levels of maternal exposure.
Benzene: One study of women workers exposed to benzene suggested a weak association with irregular menstruation. However, other studies of workers exposed to benzene have not demonstrated clear evidence of an effect on fertility or reproductive outcome in humans. Benzene can cross the placenta and affect the developing fetus. Cases of aplastic anemia have been reported in the offspring of persons severely over-exposed to benzene. Studies in laboratory animals show evidence of adverse effects on male reproductive organs following high levels of exposure but no significant effects on reproduction have been observed. Embryotoxicity has been reported in studies of laboratory animals but effects were limited to reduced fetal weight and skeletal variations.
Ethylbenzene: Studies in laboratory animals indicate limited evidence of renal malformations, resorptions, and developmental delays following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time.
n-Hexane: In laboratory studies, prolonged exposure to elevated concentrations of n-hexane was associated with decreased sperm count and degenerative changes in the testicles of rats.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Benzene	Negative - Inhalation	Rat	-	-

Conclusion/Summary : No additional information.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Narcotic effects
Pentane, all isomers	Category 3	Not applicable.	Narcotic effects
Hexane, other isomers	Category 3	Not applicable.	Narcotic effects
Heptane, all isomers	Category 3	Not applicable.	Narcotic effects
Ethanol	Category 3	Not applicable.	Respiratory tract irritation
Butane	Category 2	Not determined	central nervous system (CNS)
Cumene	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
n-Hexane	Category 3	Not applicable.	Narcotic effects
Cyclohexane	Category 3	Not applicable.	Narcotic effects

Section 11. Toxicological information

1,2,4-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Inhalation	kidneys
Benzene	Category 1	Inhalation	blood system
n-Hexane	Category 2	Inhalation	peripheral nervous system

Aspiration hazard

Name	Result
CITGO Gasolines, All Grades Unleaded	ASPIRATION HAZARD - Category 1
Pentane, all isomers	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Hexane, other isomers	ASPIRATION HAZARD - Category 1
Heptane, all isomers	ASPIRATION HAZARD - Category 1
Benzene	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
n-Hexane	ASPIRATION HAZARD - Category 1
Cyclohexane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Breathing high concentrations can cause irregular heartbeats which can be fatal.

Skin contact : Causes skin irritation. Defatting to the skin.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Breathing high concentrations can cause irregular heartbeats which can be fatal.

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Potential chronic health effects

Section 11. Toxicological information

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : May cause genetic defects.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 433 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 500000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Xylenes, mixed isomers	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours
Heptane, all isomers	Acute EC50 1.5 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 4 mg/l	Fish - Carassius auratus	24 hours
	Acute LC50 375000 µg/l Fresh water	Fish - Oreochromis mossambicus	96 hours
	Acute LC50 4924 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
Ethanol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
Benzene	Acute EC50 29000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1360000 µg/l Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute EC50 9230 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 21000 µg/l Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 5.28 ul/L Fresh water	Fish - Oncorhynchus gorbuscha - Fry	96 hours
	Chronic NOEC 1.5 to 5.4 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	4 weeks

Section 12. Ecological information

Cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 10600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
n-Hexane	Acute LC50 2500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Cyclohexane	Acute LC50 4530 µg/l Fresh water	Fish - Pimephales promelas	96 hours
1,2,4-Trimethylbenzene	Acute LC50 17000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 22.4 mg/l Fresh water	Fish - Tilapia zillii	96 hours
Naphthalene	Acute EC50 1.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
	Chronic NOEC 0.67 ppm Fresh water	Fish - Oncorhynchus kisutch	40 days

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : **Toluene**: Rapidly biodegradable in aerobic conditions.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Pentane, all isomers	3.45	171	low
Toluene	2.73	8.3	low
Xylenes, mixed isomers	3.12	8.1 to 25.9	low
Heptane, all isomers	4.66	552	high
Ethanol	-0.35	-	low
Butane	2.89	-	low
Benzene	2.13	4.27	low
Cumene	3.55	94.69	low
Ethylbenzene	3.6	-	low
n-Hexane	4	501.187	high
Cyclohexane	3.44	167	low
1,2,4-Trimethylbenzene	3.63	243	low
Naphthalene	3.4	36.5 to 168	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D001, D018

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylenes, mixed isomers	1330-20-7	Listed	U239
Toluene	108-88-3	Listed	U220
Benzene	71-43-2	Listed	U019
Cumene	98-82-8	Listed	U055
Cyclohexane	110-82-7	Listed	U056

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1203	UN 1203	UN1203
UN proper shipping name	UN 1203, Gasoline, 3 PG II.	UN 1203, Gasoline, 3 PG II.	UN 1203, Gasoline, 3 PG II.
Transport hazard class(es)	3 	3 	3 
Packing group	II	II	II
Environmental hazards	Yes.	Yes.	Yes.
Additional information	**Packaging instruction** **Passenger aircraft** Quantity limitation: 5 L **Cargo aircraft** Quantity limitation: 60 L	-	**Cargo Aircraft Only**Quantity limitation: 60 L **Limited Quantities - Passenger Aircraft**Quantity limitation: 5 L

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

Clean Water Act (CWA) 307: Toluene; Benzene; Ethylbenzene; Naphthalene

Clean Water Act (CWA) 311: Xylenes, mixed isomers; Toluene; Benzene; Ethylbenzene; Cyclohexane; Naphthalene

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

Clean Air Act (CAA) 112 regulated flammable substances: Pentane; Butane

SARA 302/304

Composition/information on ingredients

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Octanes, all isomers	Yes.	No.	No.	Yes.	No.
Pentane	Yes.	No.	No.	Yes.	No.
Toluene	Yes.	No.	No.	Yes.	Yes.
Hexane, other isomers	Yes.	No.	No.	Yes.	Yes.
Heptane	Yes.	No.	No.	Yes.	No.
Xylenes, mixed isomers	Yes.	No.	No.	Yes.	No.
Ethanol	Yes.	No.	No.	Yes.	Yes.
Butane	Yes.	Yes.	No.	Yes.	No.
Nonane, all isomers	Yes.	No.	No.	Yes.	No.
Benzene	Yes.	No.	No.	Yes.	Yes.
n-hexane	Yes.	No.	No.	Yes.	Yes.
Cumene	Yes.	No.	No.	Yes.	Yes.
Methylcyclohexane	Yes.	No.	No.	Yes.	No.
Trimethylbenzene, all isomers	Yes.	No.	No.	Yes.	Yes.
Ethylbenzene	Yes.	No.	No.	Yes.	Yes.
2,2,4-Trimethylpentane	Yes.	No.	No.	Yes.	No.
1,2,4-Trimethylbenzene	Yes.	No.	No.	Yes.	No.
Cyclohexane	Yes.	No.	No.	Yes.	No.
Cyclopentane	Yes.	No.	No.	Yes.	No.
Naphthalene	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Toluene	108-88-3	<20
	Xylenes, mixed isomers	1330-20-7	<20
	Benzene	71-43-2	<5
	Ethylbenzene	100-41-4	<4
	Cumene	98-82-8	<4
	n-Hexane	110-54-3	<3
	Cyclohexane	110-82-7	<3
	1,2,4-Trimethylbenzene	95-63-6	<2
	Naphthalene	91-20-3	<2

Section 15. Regulatory information

Supplier notification	Toluene	108-88-3	<20
	Xylenes, mixed isomers	1330-20-7	<20
	Benzene	71-43-2	<5
	Ethylbenzene	100-41-4	<4
	Cumene	98-82-8	<4
	n-Hexane	110-54-3	<3
	Cyclohexane	110-82-7	<3
	1,2,4-Trimethylbenzene	95-63-6	<2
	Naphthalene	91-20-3	<2

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: HEPTANE (N-HEPTANE); Xylenes, mixed isomers; Toluene; Octanes, all isomers; PENTANE; ETHYL ALCOHOL; BENZENE; Butane; Cumene; Ethylbenzene; Trimethylbenzene, all isomers; Methylcyclohexane; n-Hexane; Ethyltoluene; Cyclohexane; 2,2,4-Trimethylpentane; PSEUDOCUMENE; Cyclopentane

New York : The following components are listed: Toluene; Benzene; Cumene; Benzene, 1-methylethyl-; Ethylbenzene; Hexane; Cyclohexane; Benzene, hexahydro-; 2,2, 4-Trimethylpentane; Naphthalene

New Jersey : The following components are listed: Gasoline

Pennsylvania : The following components are listed: Gasoline

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Gasoline engine exhaust (condensates / extracts)	100	Yes.	No.	No.	No.
Toluene	<20	No.	Yes.	No.	7000 µg/day (ingestion)
Ethanol	<10	Yes.	Yes.	No.	No.
Benzene	<5	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)
Ethylbenzene	<5	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Cumene	<5	Yes.	No.	No.	No.
Naphthalene	<2	Yes.	No.	Yes.	No.

International regulations

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

Canada inventory : All components are listed or exempted.

EU Inventory : All components are listed or exempted.

WHMIS (Canada) : Class B-2: Flammable liquid
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Section 16. Other information

National Fire Protection Association (U.S.A.)

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History

Date of issue/Date of revision : 5/19/2015.

Key to abbreviations :
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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SAFETY DATA SHEET

Issuing Date November 9, 2015 **Revision Date** August 8, 2017 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Formula 409® Multi-Surface Cleaner**

Other means of identification

EPA Registration Number 5813-73

Recommended use of the chemical and restrictions on use

Recommended Use Multi-purpose spray cleaner and disinfectant

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 3

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Warning**

Hazard statements
Causes mild skin irritation

No pictogram required.

Appearance Clear **Physical State** Thin liquid **Odor** Floral, citrus

Precautionary Statements - Prevention
None

Precautionary Statements - Response
If skin irritation occurs: Get medical advice.

Precautionary Statements - Storage
None

Precautionary Statements - Disposal
None

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
0.2% of the mixture consists of ingredient(s) of unknown toxicity

Other information
Very toxic to aquatic life with long-lasting effects.

Interactions with Other Chemicals
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Lauramine oxide	1643-20-5	0.5 - 1.5	*
n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride	68424-85-1	0.2 - 0.4	*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move to fresh air. If breathing is affected, call a doctor.

Ingestion Call a poison control center or doctor immediately for treatment advice. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Mild irritation of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
No information available

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes and skin.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for additional ecological Information

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lauramine oxide 1643-20-5	None	None	None
n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride 68424-85-1	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection	If splashes are likely to occur, wear safety glasses with side-shields. None required for consumer use.
Skin and Body Protection	No special protective equipment required.
Respiratory Protection	If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes, or clothing. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid		
Appearance	Clear	**Odor**	Floral, citrus
Color	Clear	**Odor Threshold**	No information available

Property	**Values**	**Remarks/ Method**
pH	9 - 11.5	None known
Melting/freezing point	No data available	None known
Boiling Point/Range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0	None known
Water Solubility	Soluble in water.	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known.

Incompatible materials
None known.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Exposure to vapor or mist may irritate respiratory tract.
Eye Contact	May cause eye irritation.
Skin Contact	Prolonged contact may cause irritation.
Ingestion	Ingestion may cause irritation to mucous membranes and gastrointestinal irritation, nausea, vomiting, and diarrhea.

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes and skin redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive Toxicity	No information available
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect.
Target Organ Effects	Respiratory system, eyes, skin, gastrointestinal tract (GI).
Aspiration Hazard	No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document Not applicable.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects.

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other Adverse Effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging
Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

> **CAUTION:** Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Avoid contact with foods.

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethanolamine 141-43-5	X	X	X	-	X

International Regulations

Canada
WHMIS Hazard Class
D2B Toxic Materials

16. OTHER INFORMATION

NFPA	**Health Hazard** 1	**Flammability** 0	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 1	**Flammability** 0	**Physical Hazard** 0	**Personal Protection** B

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation Date November 9, 2015

Revision Date August 8, 2017

Revision Note Removal of dye.

Reference XXXXXXX/166962.001

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

SAFETY DATA SHEET

Issuing Date 05-Jan-2015 **Revision Date** 02-Jun-2020 **Revision Number** 2

NGHS - English

1. IDENTIFICATION

Product identifier

Product Name Clorox Commercial Solutions® Clorox® Disinfecting Wipes - Fresh Scent

Other means of identification

EPA Pesticide registration number 67619-31

Recommended use of the chemical and restrictions on use

Recommended Use Wipes, Disinfecting
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Identification Clorox Professional Products Company

Address 1221 Broadway
Oakland, CA 94612
USA

Telephone 1-510-271-7000

Emergency telephone number

Emergency Telephone Number For Medical Emergencies call: 1-800-446-1014. Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Appearance Clear White **Physical state** Pre-Moistened Towelette (no free liquids) **Odor** Fruity Apple Floral

GHS Label elements, including precautionary statements

Hazard statements
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Precautionary Statements - Prevention
Not applicable

Precautionary Statements - Response
Not applicable

Precautionary Statements - Storage
Not applicable

Precautionary Statements - Disposal
Not applicable

Other information
Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

First aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Hazardous Combustion Products Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Pre-Moistened Towelette (no free liquids)
Appearance	Clear White
Odor	Fruity Apple Floral
Color	No information available
Odor Threshold	No information available

Property	**Values**	**Remarks Method**
pH	6 - 7.5 (liquid)	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	~1.0 (liquid)	None known
Water Solubility	Completely soluble	None known
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	0	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

Explosive properties	No information available
Oxidizing properties	No information available
Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous Decomposition Products None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye contact	May cause slight irritation.
Skin contact	None known.
Ingestion	Ingestion may cause irritation to mucous membranes.

Information on toxicological effects

Symptoms	No information available.

Numerical measures of toxicity

Acute Toxicity	No information available
Unknown acute toxicity	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and Degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

ICAO Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product may contain a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

US EPA Label Information

EPA Pesticide Registration No. 67619-31

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide label
CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Wear gloves for prolonged or frequent use.

16. OTHER INFORMATION

NFPA	**Health hazards** 0	**Flammability** 0	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 0	**Flammability** 0	**Physical hazards** 0	**Personal Protection** X

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 05-Jan-2015

Revision Date 02-Jun-2020

Revision Note No information available

Disclaimer

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End of Safety Data Sheet

SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** June 12, 2015 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Clorox® Regular-Bleach$_1$**

Other means of identification

EPA Registration Number 5813-100

Recommended use of the chemical and restrictions on use

Recommended use Household disinfecting, sanitizing, and laundry bleach

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies, call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Causes severe skin burns and eye damage
Causes serious eye damage

Appearance Clear, pale yellow **Physical State** Thin liquid **Odor** Bleach

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves, protective clothing, face protection, and eye protection such as safety glasses.

Precautionary Statements - Response
Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Specific treatment (see supplemental first aid instructions on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)
Although not expected, heart conditions or chronic respiratory problems such as asthma, chronic bronchitis, or obstructive lung disease may be aggravated by exposure to high concentrations of vapor or mist.

Product contains a strong oxidizer. Always flush drains before and after use.

Unknown Toxicity
Not applicable.

Other information
Very toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	5 - 10	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice Call a poison control center or doctor immediately for treatment advice. Show this safety data sheet to the doctor in attendance.

Eye Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move to fresh air. If breathing is affected, call a doctor.

Ingestion Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice.

Protection of First-aiders Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
This product causes burns to eyes, skin, and mucous membranes. Thermal decomposition can release sodium chlorate and irritating gases and vapors.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required. For spills of multiple products, responders should evaluate the MSDSs of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed and/or poorly-ventilated areas until hazard assessment is complete.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams. See Section 12 for ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Store away from children. Reclose cap tightly after each use. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate food or feed by storage of this product.

Incompatible Products Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hypochlorite 7681-52-9	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection If splashes are likely to occur: Wear safety glasses with side shields (or goggles) or face shield.

Skin and Body Protection Wear rubber or neoprene gloves and protective clothing such as long-sleeved shirt.

Respiratory Protection If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Wash hands after direct contact. Do not wear product-contaminated clothing for prolonged periods. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid		
Appearance	Clear	**Odor**	Bleach
Color	Pale yellow	**Odor Threshold**	No information available

Property	**Values**	**Remarks/ Method**
pH	~12	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.1	None known
Water Solubility	Soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information .

Inhalation Exposure to vapor or mist may irritate respiratory tract and cause coughing. Inhalation of high concentrations may cause pulmonary edema.

Eye Contact Corrosive. May cause severe damage to eyes.

Skin Contact May cause severe irritation to skin. Prolonged contact may cause burns to skin.

Ingestion Ingestion may cause burns to gastrointestinal tract and respiratory tract, nausea, vomiting, and diarrhea.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. May cause burns to eyes. May cause redness or burns to skin. Inhalation may cause coughing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Chronic Toxicity Carcinogenic potential is unknown.
Target Organ Effects Respiratory system, eyes, skin, gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
54 g/kg
ATEmix (inhalation-dust/mist)
58 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects.

This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams.

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Dispose of in accordance with all applicable federal, state, and local regulations. Do not contaminate food or feed by disposal of this product.

Contaminated Packaging
Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT	Not restricted.
TDG	Not restricted for road or rail.
ICAO	Not restricted, as per Special Provision A197, Environmentally Hazardous Substance exception.
IATA	Not restricted, as per Special Provision A197, Environmentally Hazardous Substance exception.
IMDG/IMO	Not restricted, as per IMDG Code 2.10.2.7, Marine Pollutant exception.

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

> **DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear protective eyewear and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the restroom. Avoid breathing vapors and use only in a well-ventilated area.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium chlorate 7775-09-9	X	X	X		

International Regulations

Canada
WHMIS Hazard Class
E - Corrosive material

16. OTHER INFORMATION

NFPA	**Health Hazard** 3	**Flammability** 0	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 3	**Flammability** 0	**Physical Hazard** 0	**Personal Protection** B

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date June 12, 2015

Revision Note Revision Section 14.

Reference 1096036/164964.159

General Disclaimer
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End of Safety Data Sheet

SAFETY DATA SHEET

1. Identification

Product identifier	**Brakleen® Brake Parts Cleaner**
Other means of identification	
Product code	05151
Recommended use	Brake parts cleaner
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)
Website	www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
Health hazards	Serious eye damage/eye irritation	Category 2
	Reproductive toxicity (the unborn child)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements

Signal word	Danger
Hazard statement	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs (liver, kidneys, brain, lungs) through prolonged or repeated exposure. Harmful to aquatic life.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not apply while equipment is energized. Pressurized container: Do not pierce or burn, even after use. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response	If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention.
Storage	Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

11.8% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	80 - 90
Carbon dioxide		124-38-9	10 - 20
Toluene		108-88-3	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Many vapors are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Prevent product from entering drains. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not breathe mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3 5000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling TWA	300 ppm 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL TWA	750 ppm 500 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3) Skin designation applies.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Neoprene. Polyvinyl alcohol (PVA).

Other Wear suitable protective clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol.

Color Clear. Colorless.

Odor	Sweet.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-138.8 °F (-94.9 °C) estimated
Initial boiling point and boiling range	132.9 °F (56.1 °C) estimated
Flash point	< 0 °F (< -17.8 °C) Tag Closed Cup
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.2 % estimated
Flammability limit - upper (%)	12.8 % estimated
Vapor pressure	6962 hPa estimated
Vapor density	2 (air = 1)
Relative density	0.88 estimated
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	869 °F (465 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	88.2 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Aluminum.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Acetone poisoning may result in liver and kidney damage.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. May cause drowsiness and dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Narcotic effects.

Product	Species	Test Results
Brakleen® Brake Parts Cleaner		
Acute		
Dermal		
LD50	Rabbit	22231 mg/kg estimated

Product	Species	Test Results
Inhalation		
LC50	Rat	33087 ppm, 4 hours estimated
		82 mg/l, 4 Hours estimated
Oral		
LD50	Rat	6560 mg/kg estimated

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure: Liver. Kidneys. Brain. Lungs.

Aspiration hazard Based on available data, the classification criteria are not met.

Chronic effects May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Harmful to aquatic life.

Product		Species	Test Results
Brakleen® Brake Parts Cleaner			
Aquatic			
Acute			
Fish	LC50	Fish	7948.4028 mg/l, 96 hours estimated

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
Acetone	-0.24
Toluene	2.73

Mobility in soil No data available.

Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, LIMITED QUANTITY
Transport hazard class(es)	
Class	2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Toluene (CAS 108-88-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	Listed.
Toluene (CAS 108-88-3)	Listed.

CERCLA Hazardous Substances: Reportable quantity

Acetone (CAS 67-64-1)	5000 LBS
Toluene (CAS 108-88-3)	1000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Toluene (CAS 108-88-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	594

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)
Toluene (CAS 108-88-3)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Carbon dioxide (CAS 124-38-9)
Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Carbon dioxide (CAS 124-38-9)
Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Toluene (CAS 108-88-3)
Carbon dioxide (CAS 124-38-9)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987
Cumene (CAS 98-82-8)	Listed: April 6, 2010
Ethanal (CAS 75-07-0)	Listed: April 1, 1988
Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997
Toluene (CAS 108-88-3)	Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	2.7 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	This product is regulated as a Brake Cleaner. This product is compliant for use in all 50 states. This product also complies with South Coast Air Quality Management District Rule 1171.
VOC content (CA)	2.7 %
VOC content (OTC)	2.7 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	05-26-2015
Prepared by	Allison Cho
Version #	01
Further information	CRC # 668A
HMIS® ratings	Health: 1* Flammability: 4 Physical hazard: 0 Personal protection: B

NFPA ratings

Health: 1
Flammability: 4
Instability: 0

NFPA ratings

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.

CHICO® A SEALING COMPOUND/CHICO A3/CHICO A4/ CHICO A05/CHICO A200/CHICO A19PX/CHICO A39PX

EATON CROUSE-HINDS SERIES

SAFETY DATA SHEET

IF 1365

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

Chemical Product Name: Chico A/Chico A3/Chico A4/Chico A05/ Chico A200/Chico A19PX/Chico A39PX
Product Description: Sealing compound
CAS Number: Mixture of 65997-16-2, 26499-65-0, 65997-15-1, and 14808-60-7
Synonyms: NA
Recommended Use(s): Sealing compound
Company Information: Eaton's Crouse-Hinds Division
1201 Wolf Street
Syracuse, NY 13208 USA
Telephone: (866) 764-5454
Emergency Phone: CHEMTREC (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

OSHA HCS status: This product is a hazardous chemical, as defined by OSHA at 29 CFR 1910.1200. Hazards identified are based on hazards of the ingredients. This product has not been fully tested.

Relevant route of exposure/target organs: Dermal and inhalation.

OSHA/GHS signal word and hazard statements: DANGER: Causes serious eye damage. Causes skin irritation.

OSHA/GHS classification and pictograms:

Skin corrosion/irritation	Category 2
Serious eye damage, eye irritation	Category 1

OSHA/GHS precautionary statements:

Prevention: Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. See Section 8 for recommendations on type of protective equipment to be worn.

Response: If on skin: Wash with plenty of water. Specific treatment: see first aid instructions on label. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

GHS hazard and precautionary statement codes: See Section 16.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

Component	CAS #	%
Cement, alumina, chemicals	65997-16-2	60-70
Bassanite (calcium sulfate hemihydrate)	10034-76-1	30-35
Haturite (tricalcium silicate)	13778-30-8	<4

SECTION 4: FIRST AID MEASURES

Eye contact: Holding eyelids away from the eyeballs, flush eyes thoroughly with lukewarm water for 15 minutes. Do not rub. If irritation persists, seek medical attention.

Skin contact: Remove contaminated clothing and wash skin thoroughly with soap and water. Do not rub or scratch skin. Use cream or lotion after washing. If irritation persists, seek medical attention.

Inhalation: If inhalation of dusts results in coughing, sneezing or nasal irritation, remove to fresh air until symptoms subside. Give oxygen or artificial respiration, if indicated. Seek medical attention.

Ingestion: Product can harden inside the body. If ingested, seek immediate medical attention.

Notes to physician: Ingestion of sufficient quantities can result in blockage or obstruction especially in the pyloric region of the digestive tract.

Most important symptoms/effects: Causes severe eye damage. Inhalation of dusts and fibers may cause upper respiratory irritation with coughing, sneezing and nasal irritation. Repeated exposure over time may affect the lungs (see below). Dusts may cause general skin irritation. Fibers may cause mechanical irritation and itching. Dusts may cause general eye irritation. Fibers may cause irritation and scratch the outer surface of the eye.

Indication of immediate medical attention and special treatment needed: Get medical attention immediately if product comes into contact with eyes or skin, or if it is inhaled. If ingested, get medical attention, if needed.

SECTION 5: FIRE FIGHTING MEASURES

Special fire fighting procedures: No unusual fire hazards.

Extinguishing media: Use media appropriate for surrounding fire.

Protective equipment: Firefighters should wear a NIOSH approved, full face piece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout gear.

Unusual fire or explosion hazards: Non-flammable and non-combustible.

Hazardous combustion products: Thermal decomposition may produce oxides of carbon.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal protection: Wear protective equipment appropriate for the level of exposure. If dust is present, wear NIOSH type N95 or N100 filter during clean-up. Avoid prolonged skin contact.

Spill procedures: Isolate the hazard and deny entry to unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled material. Clean dusts promptly to prevent dispersion. Do not inhale dusts.

Environmental precautions and clean-up methods: Use dry clean-up methods or a vacuum equipped with a filter sufficient to prevent re-circulation of dust into the workplace. Do not use compressed air to remove dusts from work and storage areas.

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SECTION 7: HANDLING & STORAGE

Precautions: Periodically clean storage and work areas where this product is used or stored to minimize dust accumulation. Do not inhale dusts. Store in well-ventilated area in closed containers. Use dust collectors and local exhaust ventilation when cutting or trimming with power tools. Do not use compressed air or dry sweeping to remove dust from work area. Vacuum dusty clothing before removal. Launder work clothing separately and rinse washer after use. Avoid skin contact. Do not attempt to make a cast enclosing any part of the body using this material, as heat may cause severe burns and expansion may result in decreased circulation that may require surgical removal of affected tissue or amputation of limb.

Storage: Store in a cool, well-ventilated, non-combustible location, away from all sources of ignition. Keep away from heat, steam pipes and sunlight. Keep containers tightly closed.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering controls/ventilation: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminants to at or below acceptable exposure guidelines.

Eye protection: Wear eye and face protection. Wear safety goggles that meet ANSI Z87 standards and/or are tested and approved under appropriate government standards.

Respiratory protection: Under normal working conditions with airborne exposures below acceptable exposure guidelines, none required. Where dust is present and for airborne exposures above acceptable limits, wear NIOSH approved respiratory protection, such as N95 or N100 respirator, in accordance with OSHA 29 CFR 1910.134.

Skin protection: Protective gloves and long sleeved clothing or coveralls with loose fitting cuffs and collars.

Component	CAS #	OSHA/PEL	ACGIH/TLV
Cement, alumina, chemicals	65997-16-2	Not established	Not established
Bassanite (calcium sulfate hemihydrate)*	10034-76-1	Not established	Not established
Haturite (tricalcium silicate)	13778-30-8	Not established	Not established
Total dust		15 mg/m^3	10 mg/m^3
Respirable dust		5 mg/m^3	3 mg/m^3

*Spain TLV 10 mg/m^3.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

- **Color:** Light gray
- **Physical form:** Powder
- **Odor:** Odorless
- **Odor characteristics:** NA
- **Odor threshold:** NA
- **pH (undiluted):** Not applicable
- **Flash point:** Not applicable
- **Flammability (solid, gas):** Non-flammable
- **Boiling point:** Not applicable
- **Evaporation rate:** Not applicable
- **Melting point:** 1300-1400°C
- **Lower explosive limit:** Not applicable
- **Upper explosive limit:** Not applicable
- **Vapor pressure:** Not applicable (at 70°F)
- **Vapor density:** Not applicable
- **Specific gravity:** 3
- **Solubility:** Slight
- **Auto-ignition temperature:** NA
- **Decomposition temperature:** >1450°C

SECTION 10: STABILITY & REACTIVITY

Stability: Stable under normal use and storage conditions.

Hazardous polymerization: Will not occur.

Oxidizing properties: None known for product.

Hazardous decomposition products: Thermal decomposition (above 1450°F) will produce toxic sulfur dioxide, metal oxides, calcium oxide and other oxidation products.

Incompatibilities: None known.

Conditions to avoid: When mixed with water, an exothermic reaction takes place. If large quantities of this product are mixed with sufficient quantities of water, steam can be formed. The heat from the steam can cause burns.

SECTION 11: TOXICOLOGICAL INFORMATION

Delayed and immediate effects: Skin and eyes: Causes severe burns.

Numerical measures of toxicity:

Oral LD50 (rat): No data is available for this material.

Inhalation LC50 (rat): No data is available for this material.

Dermal LD50: No data is available for this material.

Chronic effects: None known.

Carcinogenicity:

IARC: No

NTP: No

OSHA: No

Mutagenicity: No data is available for this material.

Reproductive toxicity: No data is available for this material.

Sensitization: No data is available for this material.

Signs and symptoms of overexposure:

If inhaled: Coughing, nasal congestion, laryngitis, respiratory irritation.

If ingested: Product will harden inside the body. Ingestion of sufficient quantities can result in blockage or obstruction, especially in the pyloric region of the digestive tract.

If on skin or eyes: Irritation, dryness, burns.

SECTION 12: ECOLOGICAL INFORMATION

This product is not expected to have an adverse effect on the environment. Avoid exposure to environment whenever possible.

Toxicity to fish, crustaceans and algae:

Cement, alumina, chemicals:

Oral LC50 (Oncorhynchus mykiss): > 100 mg/l (96 hour)

NOEC (Oncorhynchus mykiss): > 100 mg/l (96 hour)

EC50 (Daphnia magna) 6.6 mg/l (48 hour)

NOEC (Daphnia magna) 1.8 mg/l

EC50 (Pseudokirchnerella subcapitata) > 5.6 mg/l (72 hour)

NOEC (Pseudokirchnerella subcapitata) 3.2 mg/l (72 hour)

No data is available for other components of this material.

Ecotoxicological information: NA
Chemical fate information: NA

SECTION 13: DISPOSAL CONSIDERATIONS

Recycle, reclaim or dispose of contents/container to an approved landfill in accordance with local, regional, national, international regulations. Do not discard into any sewers, on the ground or into any body of water. It is the responsibility of the waste generator to determine the proper waste identification and disposal methods.

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SECTION 14: TRANSPORT INFORMATION

Proper shipping name: Not classified as hazardous by DOT, IATA/ICAO and IMO.

Hazard class: Not classified as hazardous by DOT, IATA/ICAO and IMO.

Packing group: Not classified as hazardous by DOT, IATA/ICAO and IMO.

UN number: Not classified as hazardous by DOT, IATA/ICAO and IMO.

SECTION 15: REGULATORY INFORMATION

TSCA inventory status: All ingredients are listed on the TSCA inventory.

SARA Section 311/312 hazard categories: Immediate (acute) hazard.

Section 313 toxic chemicals: This product does not contain ingredients subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372.

CERCLA RQ: This product does not contain ingredients subject to the report requirements of SARA 304 (CERCLA) and 302 (EHS).

California proposition 65: Not listed.

Canadian regulations: All components of this product are included in the Canadian Domestic Substances List (DSL) or the Canadian Non-domestic Substances List (NDSL).

WHMIS classification: D2A.

SECTION 16: OTHER INFORMATION

Revision number: Revision 4 (updated formulation and associated hazards)
Revision Date: February, 2017
Explanation of EU directive 1272/2009 codes

- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/ face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P363 Wash contaminated clothing before reuse.
- P308 + P313 If exposed or concerned: Get medical advice/ attention.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment (see ... on this label).
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P314 Get medical advice/attention if you feel unwell.

Abbreviations

CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	US Code of Federal Regulations
EC50	Concentration that will affect 50% of the sample aquatic population
HSIS	Australia Hazardous Substance Information System
IARC	International Agency for Research on Cancer
LD50	Lethal dose to 50% of exposed laboratory animals
NA	Not available
NIOSH	US National Institute of Occupational Safety and Health
NOEC	No observed effect concentration
NTP	US National Toxicology Program
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
SARA	Superfund Amendments and Reauthorization Act
STEL	Short term exposure limit
TSCA	Toxic Substances Control Act
TWA	Time weighted average
UN	United Nations
WHMIS	Canada Workplace Hazardous Material Information System

DISCLAIMER

The information in this SAFETY DATA SHEET should be provided to all who will use, handle, store, transport or otherwise be exposed to this material. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this material. Eaton's Crouse-Hinds Division believes this information to be reliable and up-to-date as of the date of publication, but makes no warranty that it is.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Eaton's Crouse-Hinds Division's "Terms and Conditions of Sale," and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.

COMPUESTO DE SELLADO CHICO® A/CHICO A3/CHICO A4/ CHICO A05/CHICO A200/CHICO A19PX/CHICO A39PX

EATON CROUSE-HINDS SERIES

HOJA DE DATOS DE SEGURIDAD

IF 1365

GUARDE ESTAS INSTRUCCIONES PARA FUTURAS REFERENCIAS

SECCIÓN 1: IDENTIFICACIÓN DEL PRODUCTO Y COMPAÑÍA

Nombre del producto químico: Chico A/Chico A3/Chico A4/Chico A05/ Chico A200/Chico A19PX/Chico A39PX
Descripción del producto: Compuesto de sellado
Número CAS: Mezcla de 65997-16-2, 26499-65-0, 65997-15-1, y 14808-60-7
Sinónimos: NA
Uso(s) recomendado(s): Compuesto de sellado
Información de la empresa: Empresa Crouse-Hinds de Eaton (Eaton's Crouse-Hinds Division) 1201 Wolf Street Syracuse, NY 13208 EE. UU.
Teléfono: (866) 764-5454
Teléfono de emergencia: CHEMTREC (800) 424-9300

SECCIÓN 2: IDENTIFICACIÓN DE PELIGROS

Estado de la OSHA: Este producto es un producto químico peligroso, según lo define la OSHA en 29 CFR 1910.1200. Los peligros identificados se basan en peligros de los ingredientes. Este producto no se ha probado completamente.

Vía de exposición pertinente/órganos objetivo: Dérmica e inhalación.

Palabra de advertencia e indicaciones de peligro de la OSHA/GHS: PELIGRO: Causa daño ocular grave. Causa irritación en la piel.

Clasificación y pictogramas de la OSHA/GHS:

Corrosión/irritación de la piel	Categoría 2
Daño ocular grave, irritación ocular	Categoría 1

Declaraciones preventivas de la OSHA/GHS:

Prevención: Lavarse bien las manos y la piel expuesta después de la manipulación. Usar guantes de protección/ropa de protección/protección ocular/protección facial. Consultar Sección 8 para ver las recomendaciones acerca del tipo de equipo de protección a usar.

Respuesta: En caso de contacto con la piel: Lavarse con abundante agua. Tratamiento específico: ver instrucciones de primeros auxilios en la etiqueta. Si ocurre irritación en la piel: Obtener asistencia/atención médica. Quitarse la ropa contaminada y lavarla antes de volver a usar. En caso de contacto con los ojos: Enjuagarse bien con agua por varios minutos. Retirarse los lentes de contacto, si se llevan puestos y si es fácil hacerlo. Continuar enjuagando. Llamar a un médico o centro de intoxicación de inmediato.

Códigos de avisos de precaución y peligro de GHS: Consultar Sección 16.

SECCIÓN 3: COMPOSICIÓN E INFORMACIÓN SOBRE LOS INGREDIENTES

Componente	Número CAS	%
Cemento, alúmina, químicos	65997-16-2	60-70
Bassanita (hemihidrato de sulfato de calcio)	10034-76-1	30-35
Haturite (silicato tricálcico)	13778-30-8	<4

SECCIÓN 4: MEDIDAS DE PRIMEROS AUXILIOS

Contacto con los ojos: Separar los párpados del globo ocular, enjuagar bien los ojos con agua tibia durante 15 minutos. No frotar. Si la irritación persiste, buscar atención médica.

Contacto con la piel: Quitarse las prendas contaminadas y lavar bien la piel con agua y jabón. No frotar ni raspar la piel. Usar crema o loción después de lavarse. Si la irritación persiste, buscar atención médica.

Inhalación: Si la inhalación del polvo provoca tos, estornudos o irritación nasal, trasladar a la persona al aire libre hasta que cedan los síntomas. Dar oxígeno o respiración artificial, si se indica. Buscar atención médica.

Ingestión: El producto se puede endurecer dentro del cuerpo. En caso de ingesta, buscar atención médica de inmediato.

Notas al médico: La ingestión en cantidades suficientes puede causar bloqueo u obstrucción, especialmente en la región del píloro del tracto digestivo.

Síntomas/efectos más importantes: Causa daño ocular grave. La inhalación de polvo y fibras pueden causar una irritación respiratoria superior con tos, estornudos e irritación nasal. La exposición repetitiva con el tiempo puede afectar los pulmones (ver a continuación). El polvo puede causar una irritación general de la piel. Las fibras pueden causar una irritación mecánica y picazón. El polvo puede causar una irritación general en los ojos. Las fibras pueden causar irritación y picazón en la superficie externa de los ojos.

Indicación de atención médica inmediata y tratamiento especial necesario: Obtener atención médica de inmediato si el producto entra en contacto con la piel o los ojos, o en caso se inhale. En caso de ingesta, obtener atención médica, en caso ser necesaria.

SECCIÓN 5: MEDIDAS CONTRA INCENDIOS

Procedimientos especiales para combatir incendios: Ningún peligro de incendio inusual.

Medios de extinción: Usar los medios apropiados para fuego circundante.

Equipo de protección: Los bomberos deben usar un equipo de respiración autónomo (SCBA) con máscara facial completa aprobado por NIOSH, operado en modo de presión positiva y equipos de protección completa.

Peligro de incendio o explosión inusual: No inflamable y no combustible.

Productos de combustión peligrosa: La descomposición térmica puede producir óxidos de carbono.

SECCIÓN 6: MEDIDAS EN CASO DE VERTIDO ACCIDENTAL

Protección personal: Usar el equipo de protección apropiado para el nivel de exposición. Si hay polvo, usar el filtro NIOSH tipo N95 o N100 durante la limpieza. Evitar el contacto prolongado con la piel.

Procedimientos ante derrames: Aislar el peligro e impedir el ingreso innecesario y sin protección del personal. No caminar sobre o dispersar de otra manera el material derramado. Limpiar rápidamente el polvo para evitar la dispersión. No inhalar el polvo.

Precauciones ambientales y métodos de limpieza: Usar métodos de limpieza secos o aspiradoras equipadas con un filtro adecuado para evitar la recirculación de polvo en el lugar de trabajo. No usar aire comprimido para eliminar el polvo de las áreas de trabajo y almacenamiento.

SECCIÓN 7: MANIPULACIÓN Y ALMACENAMIENTO

Precauciones: Limpiar periódicamente las áreas de trabajo y almacenamiento en donde se utiliza o se almacena este producto para minimizar la acumulación de polvo. No inhalar el polvo. Almacenar en recipientes cerrados en áreas bien ventiladas. Usar colectores de polvo y ventilación de escape local cuando se realicen cortes con herramientas eléctricas. No usar aire comprimido ni barrido en seco para eliminar el polvo del área de trabajo. Aspirar la vestimenta empolvada antes de quitársela. Lavar la ropa de trabajo por separado y enjuagarla en la lavadora después de usar. Evitar el contacto con la piel. No intentar hacer una tarea de fundición en la que este material rodee alguna parte del cuerpo, el calor puede causar quemaduras graves y la expansión puede disminuir la circulación, que puede requerir una extracción quirúrgica del tejido afectado o amputación del miembro.

Almacenamiento: Almacenar en una ubicación fresca y bien ventilada, no combustible y lejos de todas las fuentes de ignición. Mantener alejado del calor, tuberías de vapor y luz solar. Mantener los contenedores herméticamente cerrados.

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SECCIÓN 8: CONTROLES DE EXPOSICIÓN Y PROTECCIÓN PERSONAL

Controles técnicos/ventilación: Ventilación de escape local utilizada junto con la ventilación general, según sea necesario para controlar los contaminantes del aire en o debajo de los lineamientos de exposición aceptables.

Protección ocular: Usar protección visual y facial. Usar gafas de seguridad que cumplan con los estándares ANSI Z87 o que se evalúen y aprueben conforme a los estándares gubernamentales apropiados.

Protección respiratoria: En condiciones normales de trabajo con exposiciones a partículas en suspensión debajo de los lineamientos de exposición aceptables, no se requiere ninguna protección. En caso que haya presencia de polvo y las exposiciones a partículas en suspensión por encima de los límites aceptados, usar protección respiratoria aprobada por NIOSH, como respirador N95 o N100, conforme a OSHA 29 CFR 1910.134.

Protección de la piel: Guantes de protección y prendar con mangas largas u overoles con puños y cuello holgados.

Componente	Número CAS	OSHA/PEL	ACGIH/TLV
Cemento, alúmina, químicos	65997-16-2	No está establecido	No está establecido
Bassanita (hemihidrato de sulfato de calcio)*	10034-76-1	No está establecido	No está establecido
Haturite (silicato tricálcico)	13778-30-8	No está establecido	No está establecido
Polvo total		15 mg/m^3	10 mg/m^3
Polvo respirable		5 mg/m^3	3 mg/m^3

*TLV España 10 mg/m3.

SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS

- **Color:** Gris claro
- **Forma física:** Polvo
- **Olor:** Inodoro
- **Características del olor:** NA
- **Umbral del olor:** NA
- **pH (no diluido):** No aplicable
- **Punto de inflamación:** No aplicable
- **Inflamabilidad (sólida, gas):** No inflamable
- **Punto de ebullición:** No aplicable
- **Tasa de evaporación:** No aplicable
- **Punto de fusión:** 1300-1400°C
- **Límite explosivo inferior:** No aplicable
- **Límite explosivo superior:** No aplicable
- **Presión de vapor:** No aplicable (a 70°F)
- **Densidad del vapor:** No aplicable
- **Gravedad específica:** 3
- **Solubilidad:** Leve
- **Temperatura de autoignición:** NA
- **Temperatura de descomposición:** >1450°C

SECCIÓN 10: ESTABILIDAD Y REACTIVIDAD

Estabilidad: Estable bajo uso y condiciones de almacenamiento normales.

Polimerización peligrosa: No ocurrirá.

Propiedades oxidantes: No se conoce ninguna para el producto.

Productos de descomposición peligrosa: La descomposición térmica (por encima de los 1450°F) producirá dióxido de sulfuro tóxico, óxidos metálicos, óxido de calcio y otros productos de oxidación.

Incompatibilidades: No se conocen.

Condiciones a evitar: Cuando se mezcla con agua, se produce una reacción exotérmica. Si se mezclan grandes cantidades de este producto con cantidades suficientes de agua, se puede formar vapor. El calor del vapor puede causar quemaduras.

SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA

Efectos retardados e inmediatos: Piel y ojos: Causa quemaduras graves.

Medidas numéricas de toxicidad:

Oral LD50 (rat): No hay información disponible para este material.

Inhalación LC50 (rat): No hay información disponible para este material.

Dérmica LD50: No hay información disponible para este material.

Efectos crónicos: No se conoce ninguna.

Carcinogenicidad:

IARC: No

NTP: No

OSHA: No

Mutagenicidad: No hay información disponible para este material.

Toxicidad reproductiva: No hay información disponible para este material.

Sensibilización: No hay información disponible para este material.

Signos y síntomas de sobreexposición:

En caso de inhalación: Tos, congestión nasal, laringitis e irritación respiratoria.

En caso de ingesta: El producto se endurecerá dentro del cuerpo. La ingestión en cantidades suficientes puede causar bloqueo u obstrucción, especialmente en la región del píloro del tracto digestivo.

En caso de contacto con la piel u ojos: Irritación, sequedad, quemaduras.

SECCIÓN 12: INFORMACIÓN ECOLÓGICA

No se espera que este producto tenga un efecto adverso en el medio ambiente. Evitar la exposición al medio ambiente cuando sea posible.

Toxicidad para peces, crustáceos y algas:

Cemento, alúmina, químicos:

LC50 oral (Oncorhynchus mykiss): > 100 mg/l (96 horas)

NOEC (Oncorhynchus mykiss): > 100 mg/l (96 horas)

EC50 (Daphnia magna) 6.6 mg/l (48 horas)

NOEC (Daphnia magna) 1.8 mg/l

EC50 (Pseudokirchnerella subcapitata) > 5.6 mg/l (72 horas)

NOEC (Pseudokirchnerella subcapitata) 3.2 mg/l (72 horas)

No hay datos disponibles para otros componentes de este material.

Información ecotoxicológica: NA
Información de destino químico: NA

SECCIÓN 13: CONSIDERACIONES SOBRE LA ELIMINACIÓN

Reciclar, recuperar o eliminar los contenidos o recipiente a un vertedero aprobado de conformidad con los reglamentos locales, regionales, nacionales e internacionales. No eliminar en cualquier alcantarillado, en el suelo o en cualquier cuerpo de agua. Es responsabilidad del generador de desechos determinar los métodos apropiados para la identificación y eliminación de desechos.

SECCIÓN 14: INFORMACIÓN DEL TRANSPORTE

Nombre apropiado para el envío: No clasificado como peligroso por DOT, IATA/ICAO e IMO.

Clase de peligros: No clasificado como peligroso por DOT, IATA/ICAO e IMO.

Grupo de empaque: No clasificado como peligroso por DOT, IATA/ICAO e IMO.

Número de UN: No clasificado como peligroso por DOT, IATA/ICAO e IMO.

SECCIÓN 15: INFORMACIÓN REGULATORIA

Estado del inventario TSCA: Todos los ingredientes se enumeran en el inventario TSCA.

Categorías de peligro 311/312 Sección SARA: Peligro inmediato (agudo).

Sección 313 Químicos tóxicos: Este producto no contiene ingredientes sujetos a los requisitos de informe de la Artículo 313 de la ley de Planificación de Emergencias y el Derecho a Saber de la Comunidad (EPCRA, por sus siglas en inglés) de 1986 y 40 CFR 372.

CERCLA RQ: Este producto no contiene ingredientes sujetos a los requisitos de informe de SARA 304 (CERCLA) y 302 (EHS).

Propuesta 65 de California: No enumerado.

Reglamentos canadienses: Todos los componentes de este producto están incluidos en la Lista de Sustancias Domésticas canadienses (DSL, por sus siglas en inglés) o la Lista de Sustancias no Domésticas canadienses (NDSL).

Clasificación WHMIS: D2A.

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SECCIÓN 16: OTRA INFORMACIÓN

Número de revisión: Revisión 4 (Formulación actualizada y peligros asociados)
Fecha de revisión: Marzo de 2017
Explicación de códigos de la directiva 1272/2009 de la UE

- P264 Lavarse cuidadosamente las manos después del uso.
- P280 Usar guantes de protección/ ropa de protección/ protección ocular/ protección facial.
- P301 + P330 + P331 EN CASO DE INGESTIÓN: Enjuagar la boca. No inducir el vómito.
- P303 + P361 + P353 EN CASO DE CONTACTO CON LA PIEL (o el cabello): Retirarse/quitarse toda la ropa contaminada de inmediato. Enjuagar la piel con agua o ducha.
- P363 Lavar la ropa contaminada antes de volver a usar.
- P308 + P313 En caso de exposición demostrada o supuesta: Obtener asistencia/atención médica.
- P310 Llame a un médico o un CENTRO DE INTOXICACIÓN de inmediato.
- P321 Tratamiento específico (consultar... en esta etiqueta).
- P305 + P351 + P338 EN CASO DE CONTACTO CON LOS OJOS Enjuagarse bien con agua por varios minutos. Retirarse los lentes de contacto, si los llevas puestos y es fácil hacerlo. Continuar enjuagando.
- P314 Obtener asistencia/atención médica si se siente indispuesto.

Abreviaciones

CAS	Servicio de Resúmenes Químicos
CERCLA	Ley de Respuesta Ambiental Exhaustiva, Compensación y Responsabilidad Pública
CFR	Código de Regulaciones Federales de EE. UU.
EC50	Concentración que afectará al 50 % de la población acuática de muestra
HSIS	Sistema de Información de Sustancias Peligrosas de Australia
IARC	Agencia Internacional de Investigación sobre el Cáncer
LD50	Dosis letal para el 50 % de animales de laboratorio expuestos
NA	No disponible
NIOSH	Instituto Nacional de Seguridad y Salud Ocupacional de EE. UU.
NOEC	No se observa efecto de concentración
NTP	Programa Toxicológico Nacional de EE. UU.
OSHA	Administración de Seguridad y Salud Ocupacional de EE. UU.
PEL	Límite permisible de exposición
RQ	Cantidad a informar
SARA	Ley de Reautorización y Enmiendas del Superfondo
STEL	Límite de exposición de corto plazo
TSCA	Ley de Control de Sustancias Tóxicas
TWA	Promedio ponderado de tiempo
UN	Naciones Unidas
WHMIS	Sistema de información sobre Materiales Peligrosos en el Lugar de Trabajo - Canadá

EXENCIÓN DE RESPONSABILIDAD

La información en esta HOJA DE DATOS DE SEGURIDAD debe ser proporcionada a todas las personas que usarán, manipularán, almacenarán, transportarán o en caso contrario estarán expuestas a este material. Esta información ha sido preparada como guía para ingeniería de planta, operaciones y administración, y para aquellas personas que trabajan con o manejando este material. Eaton's Crouse-Hinds Division considera que esta información es confiable y está actualizada a la fecha de su publicación, pero no garantiza que así sea.

Todas las declaraciones, la información técnica y las recomendaciones contenidas en este documento se basan en informaciones y pruebas que consideramos confiables. No se garantiza que las mismas sean precisas o estén completas. En conformidad con los "Términos y condiciones de venta" de Crouse-Hinds y dado que las condiciones de uso están fuera de nuestro control, el comprador debe determinar la idoneidad del producto para su uso previsto y asume todo riesgo y responsabilidad con relación al mismo.

MASTIC D'ÉTANCHÉITÉ CHICO® A/CHICO A3/CHICO A4/ CHICO A05/CHICO A200/CHICO A19PX/CHICO A39PX

EATON CROUSE-HINDS SERIES

FICHE SIGNALÉTIQUE

IF 1365

CONSERVER CES INSTRUCTIONS À TITRE DE RÉFÉRENCE.

SECTION 1 : IDENTIFICATION DU PRODUIT ET DE L'ENTREPRISE

Nom du produit chimique : Chico A/Chico A3/Chico A4/Chico A05/ Chico A200/Chico A19PX/Chico A39PX
Description du produit : Mastic d'étanchéité
Numéro CAS : Mélange de 65997-16-2, de 26499-65-0, de 65997-15-1 et de 14808-60-7
Synonymes : SO
Utilisation(s) recommandée(s) : Mastic d'étanchéité
Coordonnées de l'entreprise : Eaton's Crouse-Hinds Division
1201 Wolf Street,
Syracuse, NY 13208, É.-U.
Numéro de téléphone : 1 866 7645454
Numéro de téléphone d'urgence : CHEMTREC 1 800 4249300

SECTION 2 : IDENTIFICATION DES DANGERS

Statut selon l'OSHA : Ce produit est considéré comme un produit chimique dangereux conformément à norme 29 CFR 1910.1200 de l'OSHA. Les dangers sont identifiés en fonction des dangers posés par les composants du produit. Ce produit n'a pas été entièrement testé.

Voie d'exposition touchée/organes cibles : Cutanée et par inhalation.

Mot-indicateur et description des risques de l'OSHA et du SGH : DANGER : Provoque des lésions oculaires graves. Provoque une irritation cutanée.

Classification et icônes de l'OSHA et du SGH :

Corrosion cutanée/irritation	Catégorie 2
Lésions oculaires graves, irritation oculaire	Catégorie 1

Mentions de danger de l'OSHA et du SGH :

Prévention : Se laver abondamment les mains et la peau exposée après les manipulations. Porter des gants, des vêtements, des lunettes et/ou un masque de protection. Consulter la section 8 pour obtenir des recommandations au sujet de l'équipement de protection à porter.

Mesures réactives : En cas de contact avec la peau : Laver abondamment à l'eau et au savon. Traitement spécifique : se reporter aux instructions de premiers soins sur l'étiquette. En cas d'irritation cutanée : consulter un médecin. Ôter les vêtements contaminés et les laver avant de les réutiliser. En cas de contact avec les yeux : rincer prudemment à l'eau pendant quelques minutes. Le cas échéant, et s'il est facile de le faire, enlever les lentilles de contact. Continuer de rincer. Appeler immédiatement un centre antipoison ou un médecin.

Codes des mentions de danger et d'avertissement du SGH : Se reporter à la section 16.

SECTION 3 : COMPOSITION ET INFORMATIONS SUR LES COMPOSANTS

Composant	Numéro CAS	%
Ciment, alumine, produits chimiques	65997-16-2	60-70
Bassanite (semi-hydrate de sulfate de calcium)	10034-76-1	30-35
Haturite (silicate de tricalcium)	13778-30-8	<4

SECTION 4 : PREMIERS SECOURS

Contact avec les yeux : Tenir les paupières bien ouvertes et asperger bien les yeux d'eau tiède pendant 15 minutes. Ne pas frotter les yeux. Consulter un médecin si l'irritation persiste.

Contact avec la peau : Retirer les vêtements contaminés et bien laver la peau avec du savon et de l'eau. Ne pas frotter ni gratter la peau. Appliquer une crème ou une lotion après le lavage. Consulter un médecin si l'irritation persiste.

Inhalation : Si l'inhalation de poussière cause la toux, des éternuements ou une irritation des voies nasales, transporter la personne à l'extérieur jusqu'à ce que les symptômes disparaissent. Donner de l'oxygène ou administrer la respiration artificielle, si nécessaire. Consulter un médecin.

Ingestion : Le produit peut durcir dans le corps. En cas d'ingestion, consulter immédiatement un médecin.

Remarque à l'intention des médecins : L'ingestion en grande quantité peut créer un blocage ou une obstruction, surtout dans la région pylorique du tube digestif.

Symptômes et effets les plus importants : Provoque des lésions oculaires graves. L'inhalation de poussière et de fibres peut causer une irritation des voies respiratoires supérieures avec toux, éternuements et irritation des voies nasales. Une exposition répétée dans le temps peut endommager les poumons (voir ci-dessous). La poussière peut causer une irritation cutanée générale. Les fibres peuvent causer une irritation mécanique et provoquer des démangeaisons. La poussière peut causer une irritation oculaire générale. Les fibres peuvent causer une irritation et provoquer des démangeaisons sur la surface externe des yeux.

Situations nécessitant l'attention immédiate d'un médecin et un traitement spécial : Consulter immédiatement un médecin si le produit entre en contact avec la peau ou les yeux. En cas d'ingestion, consulter un médecin si nécessaire.

SECTION 5 : MESURES DE LUTTE CONTRE L'INCENDIE

Mesures spéciales de lutte contre l'incendie : Le produit ne pose aucun risque d'incendie inhabituel.

Agent extincteur : Éteindre l'incendie en utilisant un agent approprié.

Équipement de protection : En plus de leur uniforme complet, les pompiers doivent porter un appareil de protection respiratoire autonome (APRA) approuvé par le NIOSH avec masque complet fonctionnant en mode de pression positive.

Risques d'incendie ou d'explosion inhabituels : Ininflammable et incombustible.

Produits de combustion dangereux : La décomposition thermique peut produire de l'oxyde de carbone.

SECTION 6 : MESURES EN CAS DE FUITE ACCIDENTELLE

Protection individuelle : Porter l'équipement de protection approprié selon le degré d'exposition. Dans un environnement poussiéreux, porter un filtre de type N95 ou N100 approuvé par le NIOSH lors du nettoyage. Éviter les contacts prolongés avec la peau.

Procédure à suivre en cas de déversement : Isoler la zone dangereuse et refuser l'accès au personnel non nécessaire et non protégé. Ne pas marcher sur le produit déversé et éviter de le répandre. Éliminer rapidement la poussière afin d'éviter toute dispersion. Ne pas inhaler la poussière.

Précautions environnementales et méthodes de nettoyage : Procéder au nettoyage par voie sèche ou au moyen d'un aspirateur muni d'un filtre empêchant la recirculation de la poussière dans la zone de travail. Ne pas utiliser l'air comprimé pour éliminer la poussière des zones de travail et d'entreposage.

SECTION 7 : MANIPULATION ET ENTREPOSAGE

Précautions : Nettoyer régulièrement les zones de travail et d'entreposage où ce produit est utilisé ou stocké afin de minimiser les accumulations de poussière. Ne pas inhaler la poussière. Entreposer dans un endroit bien aéré, dans des conteneurs fermés. Utiliser des collecteurs de poussière et une ventilation par aspiration à la source lors de coupes ou de taillages avec des outils électriques. Ne pas utiliser l'air comprimé ou le balayage à sec pour éliminer la poussière des zones de travail. Passer l'aspirateur sur les vêtements poussiéreux avant de les retirer. Laver les vêtements de travail séparément et rincer la machine à laver avant toute autre utilisation. Éviter les contacts avec la peau. Éviter de plâtrer des parties du corps avec ce produit, car la chaleur peut causer de graves brûlures et l'expansion pourrait nuire à la circulation sanguine, ce qui pourrait nécessiter une ablation chirurgicale des tissus touchés ou l'amputation du membre.

Entreposage : Garder dans un endroit frais, bien aéré et incombustible, loin des sources d'incendie. Tenir éloigné de la chaleur, des tuyaux de vapeur et des rayons du soleil. Garder les conteneurs bien fermés.

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SECTION 8 : CONTRÔLES DE L'EXPOSITION ET PROTECTION INDIVIDUELLE

Contrôles techniques et ventilation : Utiliser la ventilation par aspiration à la source combinée à une ventilation générale pour maintenir les contaminants de l'air à un niveau égal ou inférieur à celui jugé acceptable dans les directives sur l'exposition.

Protection des yeux : Porter un équipement de protection pour les yeux et le visage. Porter des lunettes de sécurité qui respectent les normes ANSI Z87 ou qui ont été testées et approuvées en vertu de normes gouvernementales pertinentes.

Protection des voies respiratoires : Dans des conditions normales de travail lorsque les contaminants de l'air sont à un niveau inférieur à celui jugé acceptable dans les directives sur l'exposition, la protection des voies respiratoires n'est pas nécessaire. Dans un environnement poussiéreux où la quantité de contaminants de l'air est supérieure à la limite acceptable, porter l'équipement de protection respiratoire approuvé par le NIOSH, comme les masques N95 ou N100, conformément à la norme 29 CFR 1910.134 de l'OSHA.

Protection de la peau : Porter des gants de protection et des vêtements ou combinaisons à manches longues et munis de poignets et cols non étanches.

Composant	Numéro CAS	OSHA/PEL	ACGIH/VLE
Ciment, alumine, produits chimiques	65997-16-2	Valeur non établie	Valeur non établie
Bassanite (semi-hydrate de sulfate de calcium)*	10034-76-1	Valeur non établie	Valeur non établie
Haturite (silicate de tricalcium)	13778-30-8	Valeur non établie	Valeur non établie
Poussière totale		15 mg/m^3	10 mg/m^3
Poussière inhalable		5 mg/m^3	3 mg/m^3

* VLE pour l'Espagne : 10 mg/m3.

SECTION 9 : PROPRIÉTÉS PHYSIQUES ET CHIMIQUES

- **Couleur :** Gris pâle
- **Forme physique :** Poudre
- **Odeur :** Inodore
- **Caractéristiques de l'odeur :** SO
- **Seuil olfactif :** SO
- **pH (non dilué) :** SO
- **Point d'inflammabilité :** SO
- **Inflammabilité (forme solide/gazeuse) :** Ininflammable
- **Point d'ébullition :** SO
- **Taux d'évaporation :** SO
- **Point de fusion :** 1300-1400°C
- **Limite inférieure d'explosivité :** SO
- **Limite supérieure d'explosivité :** SO
- **Pression de vapeur :** SO (à 70°F)
- **Densité de vapeur :** SO
- **Densité relative :** 3
- **Solubilité :** Légère
- **Température d'auto-inflammation :** SO
- **Température de décomposition :** > 1450°C

SECTION 10 : STABILITÉ ET RÉACTIVITÉ

Stabilité : Stable dans des conditions normales d'utilisation et d'entreposage.

Polymérisation dangereuse : Ne se produira pas.

Propriétés d'oxydation : Aucune connue pour ce produit.

Produits de décomposition dangereux : La décomposition thermique (plus de 1450°F) produit du dioxyde de souffre, des oxydes métalliques, des oxydes de calcium et autres produits d'oxydation toxiques.

Incompatibilités : Aucune connue.

Conditions à éviter : Lorsque ce produit est mélangé à l'eau, une réaction exothermique se produit. Si une grande quantité de ce produit est mélangée à suffisamment d'eau, de la vapeur se forme. La chaleur de la vapeur peut causer des brûlures.

SECTION 11 : INFORMATIONS TOXICOLOGIQUES

Effets tardifs et immédiats : Peau et yeux : graves brûlures.

Mesures numériques de toxicité :

DL 50 (rat) en cas d'ingestion : Aucune donnée disponible pour ce produit.

CL 50 (rat) en cas d'inhalation : Aucune donnée disponible pour ce produit.

DL 50 en cas d'application cutanée : Aucune donnée disponible pour ce produit.

Effets chroniques : Aucun connu.

Cancérogénicité :

CIRC : Non

NTP : Non

OSHA : Non

Mutagénicité : Aucune donnée disponible pour ce produit.

Toxicité pour la reproduction : Aucune donnée disponible pour ce produit.

Sensibilisation : Aucune donnée disponible pour ce produit.

Signes et symptômes de surexposition :

Si inhalé : Toux, congestion nasale, laryngite et irritation des voies respiratoires.

Si ingéré : Le produit peut durcir dans le corps. L'ingestion en grande quantité peut créer un blocage ou une obstruction, surtout dans la région pylorique du tube digestif.

En cas de contact avec la peau ou les yeux : Irritation, sécheresse et brûlures.

SECTION 12 : INFORMATIONS ÉCOLOGIQUES

Ce produit ne devrait pas avoir d'effets négatifs sur l'environnement. Éviter d'exposer à l'environnement lorsque possible.

Toxicité chez les poissons, les crustacés et les algues :

Ciment, alumine, produits chimiques :

CL 50 en cas d'ingestion (Oncorhynchus mykiss) > 100 mg/L (96 h)

CSEO (Oncorhynchus mykiss) > 100 mg/L (96 h)

CE 50 (Daphnia magna) 6,6 mg/L (48 h)

CSEO (Daphnia magna) 1,8 mg/L

CE 50 (Pseudokirchnerella subcapitata) > 5,6 mg/L (72 h)

CSEO (Pseudokirchnerella subcapitata) 3,2 mg/L (72 h)

Aucune donnée disponible pour les autres composants de ce produit.

Informations écotoxicologiques : SO
Informations sur l'évolution des produits chimiques : SO

SECTION 13 : CONSIDÉRATIONS RELATIVES À L'ÉLIMINATION

Recycler, réutiliser et éliminer le contenu/conteneur dans une décharge approuvée, conformément à la réglementation locale/régionale/nationale/internationale. Ne pas jeter dans les égouts, au sol ou dans un plan d'eau. C'est à la personne à l'origine du déchet qu'il incombe de déterminer la méthode d'identification et d'élimination appropriée.

SECTION 14 : INFORMATIONS SUR LE TRANSPORT

Nom propre d'expédition : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.

Classe de risques : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.

Groupe d'emballage : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.

Numéro ONU : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.

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SECTION 15 : INFORMATIONS RÉGLEMENTAIRES

Statut sur l'inventaire du TSCA : Tous les composants figurent sur l'inventaire du TSCA.

Articles 311 et 312 de la SARA portant sur les catégories de risques : Risque immédiat (aigu).

Article 313 portant sur les produits chimiques toxiques : Le produit ne contient pas de composants soumis aux exigences de déclaration prévues à l'article 313 de la EPCRA (Emergency Planning and Community Right-To-Know Act) de 1986, ni à l'article 372 du titre 40 du CFR.

QD au titre de la CERCLA : Le produit ne contient pas de composants soumis aux exigences de déclaration des articles 304 de la SARA (CERCLA) et 302 (produits extrêmement toxiques).

Proposition 65 de la Californie : Non répertorié.

Réglementations du Canada : Tous les composants de ce produit se trouve sur la Liste intérieure des substances (LIS) ou sur la Liste extérieure des substances (LES) du Canada.

Classification SIMDUT : D2A.

SECTION 16 : AUTRES INFORMATIONS

Numéro de révision : Révision 4 (formule et dangers associés mis à jour)
Date de révision : Mars 2017
Explication des codes du règlement 1272/2009 de l'Union européenne

- P264 Se laver les mains soigneusement après manipulation.
- P280 Porter des gants, des vêtements, des lunettes et/ou un masque de protection.
- P301 + P330 + P331 SI AVALÉ : rincer la bouche. Ne PAS faire vomir.
- P303 + P361 + P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux) : ôter immédiatement tous les vêtements contaminés. Rincer la peau avec de l'eau/sous la douche.
- P363 Laver les vêtements contaminés avant réutilisation.
- P308 + P313 En cas d'exposition prouvée ou suspectée : consulter un médecin.
- P310 Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
- P321 Traitement spécifique (se reporter à ... sur l'étiquette).
- P305 + P351 + P338 EN CAS DE CONTACT AVEC LES YEUX : rincer prudemment à l'eau pendant quelques minutes. Enlever les lentilles de contact si la personne en porte et si elles peuvent être facilement enlevées. Continuer de rincer.
- P314 Consulter un médecin en cas de malaise.

Acronymes

CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations des États-Unis
EC50	Concentration dommageable pour 50 % de la population aquatique échantillonnée
CIRC	Centre International de Recherche sur le Cancer
CSEO	Concentration sans effet observé
DL 50	Dose létale pour 50 % des animaux de laboratoire exposés
HSIS	Hazardous Substance Information System de l'Australie
LEA	Limite d'exposition admissible
LECD	Limite d'exposition de courte durée
MPT	Moyenne pondérée dans le temps
NIOSH	National Institute for Occupational Safety and Health des États-Unis
NTP	National Toxicology Program des États-Unis
ONU	Organisation des Nations Unies
OSHA	Occupational Safety and Health Administration des États-Unis
QD	Quantité à déclarer
SARA	Superfund Amendments and Reauthorization Act
SIMDUT	Système d'information sur les matières dangereuses utilisées au travail (Canada)
SO	Sans objet
TSCA	Toxic Substances Control Act

AVIS DE NON-RESPONSABILITÉ

Les informations de la présente FICHE SIGNALÉTIQUE doivent être fournies à tous ceux qui utiliseront, manipuleront, stockeront, transporteront ou seront exposés d'une quelconque autre manière à cette substance. Ces informations ont été préparées pour faciliter l'organisation, les opérations et la gestion des usines, ainsi que pour les personnes travaillant avec ou manipulant cette substance. Eaton's Crouse-Hinds Division estime que ces informations sont fiables et à jour à la date de publication mais ne donne aucune garantie que tel est bien le cas.

Toutes les déclarations et les informations techniques contenues dans le présent document sont basées sur des renseignements et des tests que nous croyons fiables. Leur exactitude ou leur exhaustivité ne sont pas garanties. Conformément aux conditions de vente de Crouse-Hinds, et étant donné que les conditions d'utilisation sont indépendantes de notre volonté, l'acheteur doit déterminer si le produit convient à l'utilisation prévue et en assume tous les risques et toutes les responsabilités associées.

CHICO® X FIBER/CHICO® X4/CHICO® X6/CHICO® X7

Safety Data Sheet

EATON CROUSE-HINDS SERIES

IF 1366

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

Chemical Product Name: Chico X Fiber/Chico X4/Chico X6/Chico X7
Product Description: Vitreous fiber from slag and/or basalt (mixture)
CAS Number: Mixture
Synonyms: NA
Recommended Use(s): Mineral wool used to create a dam or plug for sealing compound
Company Information: Eaton's Crouse-Hinds Business
1201 Wolf Street
Syracuse, NY 13208
Telephone: (866) 764-5454
Emergency Phone: CHEMTREC (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

OSHA HCS Status: This product is a hazardous chemical, as defined by OSHA at 29 CFR 1910.1200. Hazards identified are based on hazards of the ingredients. This product has not been fully tested.

Relevant Route of Exposure/Target Organs: Eyes, dermal and inhalation.

OSHA/GHS Signal Word and Hazard Statements: DANGER: Causes skin irritation. Causes eye irritation. May cause cancer by inhalation. May cause damage to the respiratory system through prolonged or repeated exposure by inhalation.

OSHA/GHS Classification and Pictograms:

Skin irritation	Category 2
Eye irritation	Category 2B
Carcinogenicity	Category 1A
Specific target organ toxicity, repeated exposure	Category 2

OSHA/GHS Precautionary Statements:

Prevention: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/fibers.

Response: If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

GHS Hazard and Precautionary Statement Codes: See Section 16.

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS #	%
Mineral Wool Fiber (Slag Wool Fiber)	65997-17-3	95 – 99
Mineral Oil	8012-95-1	Less than 5

SECTION 4: FIRST AID MEASURES

Eye Contact: Holding eyelids away from the eyeballs, flush eyes thoroughly with lukewarm water for 15 minutes. Do not rub. If irritation persists, seek medical attention.

Skin Contact: Remove contaminated clothing and wash skin thoroughly with soap and water. Do not rub or scratch skin. Use cream or lotion after washing. If irritation persists, seek medical attention.

Inhalation: If inhalation of dusts or fibers results in coughing, sneezing or nasal irritation, remove to fresh air until symptoms subside. Give oxygen or artificial respiration, if indicated. Seek medical attention.

Ingestion: No harmful effects are expected from ingestion of small quantities. If gastric disturbance occurs, see medical attention.

Notes to Physician: Although not toxic, fibers may cause mechanical irritation of mucous membranes.

Most Important Symptoms/Effects: Prolonged exposure through inhalation may cause lung cancer. Causes eye and skin irritation.

Indication of Immediate Medical Attention and Special Treatment Needed: Get medical attention immediately if product comes into contact with skin or eyes, or if it is inhaled.

SECTION 5: FIRE FIGHTING MEASURES

Special Fire Fighting Procedures: No unusual fire hazards.

Extinguishing Media: Use media appropriate for surrounding fire.

Protective Equipment: Firefighters should wear a NIOSH approved, full face piece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout gear.

Unusual Fire or Explosion Hazards: Non-flammable and non-combustible.

Hazardous Combustion Products: Thermal decomposition may produce oxides of carbon.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: Wear protective equipment appropriate for the level of exposure. If dust is present, wear NIOSH type N95 or N100 filter during clean-up. Avoid prolonged skin contact.

Spill Procedures: Isolate the hazard and deny entry to unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled material. Clean dusts promptly so fibers are not dispersed. Do not inhale dusts. Avoid prolonged skin contact.

Environmental Precautions and Clean-up Methods: Use wet clean-up methods (wiping, water mists, etc.) or a vacuum equipped with a filter sufficient to prevent recirculation of fibers into the workplace. Do not use dry sweeping or compressed air to remove dusts and fibers from work and storage areas.

SECTION 7: HANDLING & STORAGE

Precautions: Periodically clean areas with wet methods where this product is used or stored to minimize dust and fiber accumulation. Do not inhale dusts. Store in well ventilated area in closed containers. Use dust collectors and local exhaust ventilation when cutting or trimming with power tools. Do not use compressed air or dry sweeping to remove dust from work area. Vacuum dusty clothing before removal. Launder work clothing separately and rinse washer after use. Avoid prolonged skin contact.

Storage: Store in a well ventilated area. Keep containers well closed.

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SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering Controls/Ventilation: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminants to at or below acceptable exposure guidelines.

Eye Protection: Wear eye and face protection. Wear safety goggles that meet ANSI Z87 standards and/or are tested and approved under appropriate government standards.

Respiratory Protection: Under normal working conditions with airborne exposures below acceptable exposure guidelines, none required. For airborne exposures above acceptable limits, wear NIOSH approved respiratory protection in accordance with OSHA 29 CFR 1910.134.

Skin Protection: Protective gloves and long sleeved clothing or coveralls with loose fitting cuffs and collars.

COMPONENT	CAS #	OSHA/PEL	ACGIH/TLV
Mineral Wool Fiber	65997-17-3	Not established	1 fiber/cc (respirable fibers*)
Mineral Oil	8012-95-1	5 mg/m3 (as oil mist)	5 mg/m3 ** (as oil mist) 10 mg/m3 (STEL) (as oil mist) 0.2 mg/m3 (as mineral oil) (2005 Notice of Intended Change)

* Respirable fibers greater than 5 micrometers (µm) in length and having an aspect ratio greater than or equal to 3:1, as determined by the membrane filter method at 400 – 450 times magnification (4 millimeter [mm] objective) using phase contrast illumination.

** As sampled by a method that does not collect vapor.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

- **Color:** Gray or Off White
- **Physical Form:** Fibrous Material
- **Odor:** Slight
- **Odor Characteristics:** NA
- **Odor Threshold:** NA
- **pH (Undiluted):** NA
- **Flash Point:** NA
- **Flammability (Solid, Gas):** Non-flammable
- **Boiling Point:** NA
- **Evaporation Rate:** NA
- **Melting Point:** 2100°F (1149°C)
- **Lower Explosive Limit:** NA
- **Upper Explosive Limit:** NA
- **Vapor Pressure:** NA (at 70°F)
- **Vapor Density:** NA
- **Specific Gravity:** 3
- **Solubility:** Insoluble in Water
- **Auto-ignition Temperature:** NA
- **Decomposition Temperature:** 2100°C

SECTION 10: STABILITY & REACTIVITY

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

Oxidizing Properties: None known for product.

Hazardous Decomposition Products: Thermal decomposition (above 2100°F) may produce oxides of carbon and smoke.

Incompatibilities: Acids (may give off hydrogen sulfide under certain acidic conditions).

Conditions to avoid: None known for product.

SECTION 11: TOXICOLOGY INFORMATION

Acute Toxicity and Immediate Effects: No data is available for this material.

Oral LD50 (rat): No data is available for this material.
Inhalation LC50 (rat): No data is available for this material.
Dermal LD50: No data is available for this material.

Delayed and Chronic Effects: Repeated fiber inhalation over time may increase risk of developing lung cancer.

Carcinogenicity:
IARC: No* Group 3 (Not classifiable as to its carcinogenicity to humans)
NTP: Yes*
OSHA: Not listed

* NTP classifies ceramic fibers and glass wool fibers as substances, which are "reasonably anticipated to be human carcinogens."

Mutagenicity: No data is available for this material.

Reproductive Toxicity: No data is available for this material.

Sensitization: No data is available for this material.

Signs and symptoms of overexposure:

If Inhaled: Coughing, sneezing and nasal irritation
If Ingested: Stomach discomfort
If on Skin or Eyes: Irritation and itching

SECTION 12: ECOLOGICAL INFORMATION

This product is not expected to have an adverse effect on the environment. Avoid exposure to environment whenever possible.

Toxicity to Fish: NA
Ecotoxicological Information: NA
Chemical Fate Information: NA

SECTION 13: DISPOSAL CONSIDERATIONS

Recycle, reclaim or dispose of contents/container to an approved landfill in accordance with local, regional, national, international regulations. Do not discard into any sewers, on the ground or into any body of water. It is the responsibility of the waste generator to determine the proper waste identification and disposal methods.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name: Not classified as hazardous by DOT, IATA/ICAO and IMO.
Hazard Class: Not classified as hazardous by DOT, IATA/ICAO and IMO.
Packing Group: Not classified as hazardous by DOT, IATA/ICAO and IMO.
UN Number: Not classified as hazardous by DOT, IATA/ICAO and IMO.

SECTION 15: REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.
SARA Section 311/312 Hazard Categories: Immediate (acute) and delayed (chronic) hazards.
Section 313 Toxic Chemicals: This product does not contain ingredients subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372.
CERCLA RQ: This product does not contain ingredients subject to the report requirements of SARA 304 (CERCLA) and 302 (EHS).
California Proposition 65: This product contains a chemical known to the State of California to cause cancer (glass wool fibers).
Canadian Regulations: All components of this product are included in the Canadian Domestic Substances List (DSL) or the Canadian Non-domestic Substances List (NDSL).
WHMIS Classification: D2B.

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SECTION 16: OTHER INFORMATION

Revision Number: Revision 2
Revision Date: June 2015
Explanation of Risk/Safety Codes

- R36/37/38 – Irritating to eyes, respiratory system and skin.
- R40(3) – Possible risks of irreversible effects.
- S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.
- S22 – Do not breathe dust.
- S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 – After contact with skin, wash immediately with plenty of soap suds.
- S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
- S51 – Use only in well ventilated areas.

Abbreviations

CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	US Code of Federal Regulations
HSIS	Australia Hazardous Substance Information System
IARC	International Agency for Research on Cancer
LD50	Lethal Dose to 50% of Exposed Laboratory Animals
NA	Not Available
NIOSH	US National Institute of Occupational Safety and Health
NOEC	No Observed Effect Concentration
NTP	US National Toxicology Program
OSHA	US Occupational Safety Health Administration
PEL	Permissible Exposure Limit
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations
WHMIS	Canada Workplace Hazardous Material Information System

DISCLAIMER

The information in this MATERIAL SAFETY DATA SHEET should be provided to all who will use, handle, store, transport or otherwise be exposed to this material. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this material. Eaton's Crouse-Hinds Business believes this information to be reliable and up-to-date as of the date of publication, but makes no warranty that it is.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale," and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.

CHICO® X FIBRAS/CHICO® X4/CHICO® X6/CHICO® X7

Hoja de datos de seguridad

EATON CROUSE-HINDS SERIES

IF 1366

GUARDE ESTAS INSTRUCCIONES PARA FUTURAS REFERENCIAS

SECCIÓN 1: IDENTIFICACIÓN DEL PRODUCTO Y COMPAÑÍA

Nombre del producto químico: Chico X Fibras/Chico X4/Chico X6/Chico X7
Descripción del producto: Fibra vítrea de escoria o basalto (mezcla)
Número CAS: Mezcla
Sinónimos: NA
Uso(s) recomendado(s): Lana mineral utilizada para crear un dique o tapón para compuesto de sellado
Información de la empresa: Empresa Crouse-Hinds de Eaton
(Eaton's Crouse-Hinds Business)
1201 Wolf Street
Syracuse, NY 13208
Teléfono: (866) 764-5454
Teléfono de emergencia: CHEMTREC (800) 424-9300

SECCIÓN 2: IDENTIFICACIÓN DE PELIGROS

Estado de HCS de la OSHA: Este producto es un producto químico peligroso, según lo define la OSHA en 29 CFR 1910.1200. Los peligros identificados se basan en peligros de los ingredientes. Este producto no se ha probado completamente.

Vía de exposición pertinente/órganos objetivo: Ojos, dérmica e inhalación.

Palabra de advertencia e indicaciones de peligro de la OSHA/GHS: PELIGRO: Causa irritación de la piel. Causa irritación ocular. Puede causar cáncer por inhalación. Puede causar daño al sistema respiratorio a través de una exposición prolongada o repetitiva por inhalación.

Clasificación y pictogramas de la OSHA/GHS:

Irritación de la piel	Categoría 2
Irritación ocular	Categoría 2B
Carcinogenicidad	Categoría 1A
Toxicidad a un órgano objetivo específico, exposición repetitiva	Categoría 2

Declaraciones preventivas de la OSHA/GHS:

Prevención: Lavarse cuidadosamente las manos después de manipular. Usar guantes de protección/ ropa de protección/ protección ocular/ protección facial. Obtener instrucciones especiales antes de utilizar. No manipular hasta que se hayan leído y comprendido todas las precauciones de seguridad. Utilizar el equipo de protección personal según sea necesario. No respirar polvo/humo/fibras.

Respuesta: En caso de contacto con la piel: Lavarse con abundante agua y jabón. Si ocurre irritación en la piel: Obtener asistencia/atención médica. Quitarse la ropa contaminada y lavarla antes de volver a usar. En caso de contacto con los ojos: Enjuagarse bien con agua por varios minutos. Retirarse los lentes de contacto, si los llevas puestos y es fácil hacerlo. Continuar enjuagando. Si la irritación ocular persiste: Obtener asistencia/atención médica. En caso de exposición demostrada o supuesta: Obtener asistencia/atención médica. Obtener asistencia/atención médica si se siente indispuesto.

Almacenamiento: Guardar bajo llave.

Eliminación: Eliminar el contenido/el recipiente conforme a los reglamentaciones locales/regionales/nacionales/internacionales.

Códigos de avisos de precaución y peligro de GHS: Consultar Sección 16.

SECCIÓN 3: COMPOSICIÓN E INFORMACIÓN SOBRE LOS INGREDIENTES

COMPONENTE	Número CAS	%
Fibra de lana mineral (Fibra de lana de escoria)	65997-17-3	95 – 99
Aceite mineral	8012-95-1	Menos de 5

SECCIÓN 4: MEDIDAS DE PRIMEROS AUXILIOS

Contacto con los ojos: Separar los párpados del globo ocular, enjuagar bien los ojos con agua tibia durante 15 minutos. No frotar. Si la irritación persiste, buscar atención médica.

Contacto con la piel: Quitarse las prendas contaminadas y lavar bien la piel con agua y jabón. No frotar ni raspar la piel. Usar crema o loción después de lavarse. Si la irritación persiste, buscar atención médica.

Inhalación: Si la inhalación del polvo o fibras provoca tos, estornudos o irritación nasal, trasladar a la persona al aire libre hasta que cedan los síntomas. Dar oxígeno o respiración artificial, si se indica. Buscar atención médica.

Ingestión: No se esperan efectos dañinos después de la ingesta de pequeñas cantidades. Si ocurre una alteración gástrica, busque atención médica.

Notas al médico: A pesar de no ser tóxicas, las fibras pueden provocar irritación mecánica de las membranas mucosas.

Síntomas/efectos más importantes: La exposición prolongada a través de la inhalación puede provocar cáncer de pulmón. Causa irritación en los ojos y la piel.

Indicación de atención médica inmediata y tratamiento especial necesario: Obtener atención médica de inmediato si el producto entra en contacto con la piel o los ojos, o en caso se inhale.

SECCIÓN 5: MEDIDAS CONTRA INCENDIOS

Procedimientos especiales para combatir incendios: Ningún peligro de incendio inusual.

Medios de extinción: Usar los medios apropiados para fuego circundante.

Equipo de protección: Los bomberos deben usar un equipo de respiración autónomo (SCBA) con máscara facial completa aprobado por NIOSH, operado en modo de presión positiva y equipos de protección completa.

Peligro de incendio o explosión inusual: No inflamable y no combustible.

Productos de combustión peligrosa: La descomposición térmica puede producir óxidos de carbono.

SECCIÓN 6: MEDIDAS EN CASO DE VERTIDO ACCIDENTAL

Protección personal: Usar el equipo de protección apropiado para el nivel de exposición. Si hay polvo, usar el filtro NIOSH tipo N95 o N100 durante la limpieza. Evitar el contacto prolongado con la piel.

Procedimientos ante derrames: Aislar el peligro e impedir el ingreso innecesario y sin protección del personal. No caminar sobre o dispersar de otra manera el material derramado. Limpiar el polvo rápidamente para que las fibras no se dispersen. No inhalar el polvo. Evitar el contacto prolongado con la piel.

Precauciones ambientales y métodos de limpieza: Usar métodos de limpieza húmedos (con paños, agua nebulizada, etc.) o aspiradoras equipadas con un filtro adecuado para evitar la recirculación de fibras en el lugar de trabajo. No usar barridos secos o aire comprimido para eliminar el polvo y las fibras de las áreas de trabajo y almacenamiento.

SECCIÓN 7: MANIPULACIÓN Y ALMACENAMIENTO

Precauciones: Limpiar periódicamente las áreas de trabajo y almacenamiento en donde se utiliza o se almacena este producto para minimizar la acumulación de polvo y fibras. No inhalar el polvo. Almacenar en recipientes cerrados en áreas bien ventiladas. Usar colectores de polvo y ventilación de escape local cuando se realicen cortes con herramientas eléctricas. No usar aire comprimido ni barrido en seco para eliminar el polvo del área de trabajo. Aspirar la vestimenta empolvada antes de quitársela. Lavar la ropa de trabajo por separado y enjuagarla en la lavadora después de usar. Evitar el contacto prolongado con la piel.

Almacenamiento: Almacenar en un área bien ventilada. Mantener los contenedores bien cerrados.

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SECCIÓN 8: CONTROLES DE EXPOSICIÓN Y PROTECCIÓN PERSONAL

Controles técnicos/ventilación: Ventilación de escape local utilizada junto con la ventilación general, según sea necesario para controlar los contaminantes del aire en o debajo de los lineamientos de exposición aceptables.

Protección ocular: Usar protección visual y facial. Usar gafas de seguridad que cumplan con los estándares ANSI Z87 o que se evalúen y aprueben conforme a los estándares gubernamentales apropiados.

Protección respiratoria: En condiciones normales de trabajo con exposiciones transportadas por el aire debajo los lineamientos de exposición aceptables, no se requiere ninguna protección. Para exposiciones a en suspensión por encima de los límites aceptables, usar la protección respiratoria aprobada por NIOSH conforme a OSHA 29 CFR 1910.134.

Protección de la piel: Guantes de protección y prendar con mangas largas u overoles con puños y cuello holgados.

COMPONENTE	Número CAS	OSHA/PEL	ACGIH/TLV
Fibra de lana mineral	65997-17-3	No establecido	1 fibra/cm3 (fibras respirables*)
Aceite mineral	8012-95-1	5 mg/m3 (como neblina de aceite)	5 mg/m3** (como neblina de aceite) 10 mg/m3 (STEL) (como neblina de aceite) 0,2 mg/m3 (como aceite mineral) (2005 Aviso de cambio previsto)

* Fibras respirables con una longitud mayor de 5 micrómetros (µm) y una proporción de aspecto mayor o igual a 3:1, según lo determine el método de filtro de membrana en una ampliación de 400 – a 450 veces (objetivo de 4 milímetro [mm]) usando la iluminación con contraste de fase.

**.Como se prueba un método que no recoge vapor.

SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS

- **Color:** Gris o casi blando
- **Forma física:** Material fibroso
- **Olor:** Leve
- **Características del olor:** NA
- **Umbral del olor:** NA
- **pH (no diluido):** NA
- **Punto de inflamación:** NA
- **Inflamabilidad (sólida, gas):** No inflamable
- **Punto de ebullición:** NA
- **Tasa de evaporación:** NA
- **Punto de fusión:** 2100 °F (1149 °C)
- **Límite explosivo inferior:** NA
- **Límite explosivo superior:** NA
- **Presión de vapor:** NA (a 70 F)
- **Densidad del vapor:** NA
- **Gravedad específica:** 3
- **Solubilidad:** Insoluble en agua
- **Temperatura de autoignición:** NA
- **Temperatura de descomposición:** 2100 C

SECCIÓN 10: ESTABILIDAD Y REACTIVIDAD

Estabilidad: Estable bajo uso y condiciones de almacenamiento normales.

Polimerización peligrosa: No ocurrirá.

Propiedades oxidantes: No se conoce ninguna para el producto.

Productos de descomposición peligrosa: La descomposición térmica (por encima de 2100 °F) puede producir óxidos de carbono y humo.

Incompatibilidades: Ácidos (pueden emitir sulfuro de hidrógeno bajo ciertas condiciones ácidas).

Condiciones a evitar: No se conoce ninguna para el producto.

SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA

Toxicidad aguda y efectos inmediatos: No hay información disponible para este material.

Oral LD50 (rat): No hay información disponible para este material.
Inhalación LC50 (rat): No hay información disponible para este material.
Dérmica LD50: No hay información disponible para este material.

Efectos retardados y crónicos: La inhalación repetida de fibras con el tiempo puede incrementar el riesgo de desarrollar cáncer de pulmón.

Carcinogenicidad:
IARC: No* Grupo 3 (No es clasificable en cuanto a la carcinogenicidad en seres humanos)
NTP: Sí*
OSHA: No enumerado

* El NTP clasifica las fibras cerámicas y fibras de lana de vidrio como sustancias, que son "razonablemente anticipadas para ser carcinógenos humanos".

Mutagenicidad: No hay información disponible para este material.

Toxicidad reproductiva: No hay información disponible para este material.

Sensibilización: No hay información disponible para este material.

Signos y síntomas de sobreexposición:

En caso de inhalación: Tos, estornudos e irritación nasal
En caso de ingesta: Malestar estomacal
En caso de contacto con la piel u ojos: Irritación y picazón

SECCIÓN 12: INFORMACIÓN ECOLÓGICA

No se espera que este producto tenga un efecto adverso en el medio ambiente. Evitar la exposición al medio ambiente cuando sea posible.

Toxicidad para peces NA
Información ecotoxicológica: NA
Información de destino químico: NA

SECCIÓN 13: CONSIDERACIONES SOBRE LA ELIMINACIÓN

Reciclar, recuperar o eliminar los contenidos o recipiente a un vertedero aprobado de conformidad con los reglamentos locales, regionales, nacionales e internacionales. No eliminar en cualquier alcantarillado, en el suelo o en cualquier cuerpo de agua. Es responsabilidad del generador de desechos determinar los métodos apropiados para la identificación y eliminación de desechos.

SECCIÓN 14: INFORMACIÓN DEL TRANSPORTE

Nombre apropiado para el envío: No clasificado como peligroso por DOT, IATA/ICAO e IMO.
Clase de peligros: No clasificado como peligroso por DOT, IATA/ICAO e IMO.
Grupo de empaque: No clasificado como peligroso por DOT, IATA/ICAO e IMO.
Número de UN: No clasificado como peligroso por DOT, IATA/ICAO e IMO.

SECCIÓN 15: INFORMACIÓN REGULATORIA

Estado del inventario TSCA: Todos los ingredientes se enumeran en el inventario TSCA.
Categorías de peligro 311/312 Sección SARA: Peligros inmediatos (agudos) y retardados (crónicos).
Sección 313 Químicos tóxicos: Este producto no contiene ingredientes sujetos a los requisitos de informe de la Artículo 313 de la ley de Planificación de Emergencias y el Derecho a Saber de la Comunidad (EPCRA, por sus siglas en inglés) de 1986 y 40 CFR 372.
CERCLA RQ: Este producto no contiene ingredientes sujetos a los requisitos de informe de SARA 304 (CERCLA) y 302 (EHS).
Propuesta 65 de California: Este producto contiene un químico conocido por el Estado de California por causa cáncer (fibras de lana de vidrio).
Reglamentos canadienses: Todos los componentes de este producto están incluidos en la Lista de Sustancias Domésticas canadienses (DSL, por sus siglas en inglés) o la Lista de Sustancias no Domésticas canadienses (NDSL).
Clasificación WHMIS: D2B.

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SECCIÓN 16: OTRA INFORMACIÓN

Número de revisión: Revisión 2
Fecha de revisión: Junio de 2015
Explicación de códigos de riesgo o seguridad

- R36/37/38 – Irritante para los ojos, el sistema respiratorio y la piel.
- R40 (3) – Posibles riesgos de efectos irreversibles.
- S36/37/39 – Usar ropa de protección adecuada, guantes y protección ocular o facial.
- S22 – No respirar polvo.
- S26 – En caso de contacto con los ojos, enjuagarse con abundante agua de inmediato y buscar atención médica.
- S28 – Después de contacto con la piel, lavar de inmediato con abundante espuma de jabón.
- S45 – En caso de accidente o si se siente indispuesto, buscar atención médica de inmediato (mostrar la etiqueta cuando sea posible).
- S51 – Usar solo en áreas bien ventiladas.

Abreviaciones

CAS	Servicio de Resúmenes Químicos
CERCLA	Ley de Respuesta Ambiental Exhaustiva, Compensación y Responsabilidad Pública
CFR	Código de Regulaciones Federales de EE. UU.
HSIS	Sistema de Información de Sustancias Peligrosas de Australia
IARC	Agencia Internacional de Investigación sobre el Cáncer
LD50	Dosis letal para el 50 % de animales de laboratorio expuestos
NA	No disponible
NIOSH	Instituto Nacional de Seguridad y Salud Ocupacional de EE. UU.
NOEC	No se observa efecto de concentración
NTP	Programa Toxicológico Nacional de EE. UU.
OSHA	Administración de Seguridad y Salud Ocupacional de EE. UU.
PEL	Límite permisible de exposición
RQ	Cantidad a informar
SARA	Ley de Reautorización y Enmiendas del Superfondo
STEL	Límite de exposición de corto plazo
TSCA	Ley de Control de Sustancias Tóxicas
TWA	Promedio ponderado de tiempo
UN	Naciones Unidas
WHMIS	Sistema de información sobre Materiales Peligrosos en el Lugar de Trabajo - Canadá

EXENCIÓN DE RESPONSABILIDAD

La información contenida en esta HOJA DE DATOS DE SEGURIDAD DE MATERIALES debe ser proporcionada a todos los que quieran utilizar, manipular, almacenar, transportar o de lo contrario exponerse a este material. Esta información ha sido preparada para la dirección de la construcción de instalaciones, operaciones y gestión, y para las personas que trabajan con o manipulan este material. Cooper Crouse-Hinds Business de Eaton considera que esta información es confiable y actualizada a la fecha de su publicación, pero no ofrece ninguna garantía de que lo sea.

Todas las declaraciones, la información técnica y las recomendaciones contenidas en este documento se basan en informaciones y pruebas que consideramos confiables. No se garantiza que las mismas sean precisas o estén completas. En conformidad con los "Términos y condiciones de venta" de Crouse-Hinds y dado que las condiciones de uso están fuera de nuestro control, el comprador debe determinar la idoneidad del producto para su uso previsto y asume todo riesgo y responsabilidad con relación al mismo.

FIBRE CHICO® X/CHICO® X4/CHICO® X6/CHICO® X7

Fiche signalétique

EATON CROUSE-HINDS SERIES

IF 1366

CONSERVER CES INSTRUCTIONS À TITRE DE RÉFÉRENCE.

SECTION 1 : IDENTIFICATION DU PRODUIT ET DE L'ENTREPRISE

Nom du produit chimique : Fibre Chico X/Chico X4/Chico X6/Chico X7
Description du produit : Fibre vitreuse provenant de laitier et/ou de basalte (mélange)
Numéro CAS : Mélange
Synonymes : SO
Utilisation(s) recommandée(s) : Laine minérale servant à créer un barrage ou un bouchon pour le mastic d'étanchéité.
Coordonnées de l'entreprise : Eaton's Crouse-Hinds Business
1201 Wolf Street,
Syracuse, NY 13208
Numéro de téléphone : 1 866 7645454
Numéro de téléphone d'urgence : CHEMTREC 1 800 4249300

SECTION 2 : IDENTIFICATION DES DANGERS

Statut selon la HCS de l'OSHA : Ce produit est considéré comme un produit chimique dangereux conformément à norme 29 CFR 1910.1200 de l'OSHA. Les dangers sont identifiés en fonction des dangers posés par les composants du produit. Ce produit n'a pas été entièrement testé.

Voie d'exposition touchée/organes cibles : Yeux, voie cutanée et par inhalation.

Mot-indicateur et description des risques de l'OSHA et du SGH : DANGER : Provoque une irritation cutanée. Provoque une irritation oculaire. L'inhalation du produit pourrait causer un cancer. L'exposition sous forme d'inhalation répétée ou prolongée peut endommager l'appareil respiratoire.

Classification et icônes de l'OSHA et du SGH :

Irritation cutanée	Catégorie 2
Irritation oculaire	Catégorie 2B
Cancérogénicité	Catégorie 1A
Toxicité spécifique pour certains organes cibles, exposition répétée	Catégorie 2

Mentions de danger de l'OSHA et du SGH :

Prévention : Se laver soigneusement les mains après les manipulations. Porter des gants, des vêtements, des lunettes et/ou un masque de protection. Obtenir les directives spéciales avant l'utilisation. Ne pas manipuler avant que toutes les consignes de sécurité aient été lues et comprises. Utiliser l'équipement de protection individuel requis. Ne pas respirer la poussière, la fumée ou les fibres.

Mesures réactives : En cas de contact avec la peau : Laver abondamment à l'eau et au savon. En cas d'irritation cutanée : consulter un médecin. Ôter les vêtements contaminés et les laver avant de les réutiliser. En cas de contact avec les yeux : rincer prudemment à l'eau pendant quelques minutes. Enlever les lentilles de contact si la personne en porte et si elles peuvent être facilement enlevées. Continuer de rincer. Si l'irritation des yeux persiste : consulter un médecin. En cas d'exposition prouvée ou suspectée : consulter un médecin. Consulter un médecin en cas de malaise.

Entreposage : Garder le produit sous clé.

Élimination : Jeter le contenu/conteneur conformément aux réglementations locales/régionales/nationales/internationales.

Codes des mentions de danger et d'avertissement du SGH : Se reporter à la section 16.

SECTION 3 : COMPOSITION ET INFORMATIONS SUR LES COMPOSANTS

COMPOSANT	Numéro CAS	%
Fibre de laine minérale (fibre de laine de laitier)	65997-17-3	95 – 99
Huile minérale	8012-95-1	Inférieur à 5

SECTION 4 : PREMIERS SECOURS

Contact avec les yeux : Tenir les paupières bien ouvertes et asperger bien les yeux d'eau tiède pendant 15 minutes. Ne pas frotter les yeux. Consulter un médecin si l'irritation persiste.

Contact avec la peau : Retirer les vêtements contaminés et bien laver la peau avec du savon et de l'eau. Ne pas frotter ni gratter la peau. Appliquer une crème ou une lotion après le lavage. Consulter un médecin si l'irritation persiste.

Inhalation : Si l'inhalation de poussière ou de fibres cause la toux, des éternuements ou une irritation des voies nasales, transporter la personne à l'extérieur jusqu'à ce que les symptômes disparaissent. Donner de l'oxygène ou administrer la respiration artificielle, si nécessaire. Consulter un médecin.

Ingestion : L'ingestion d'une petite quantité ne provoque aucun effet nocif. En cas de malaise gastrique, consulter un médecin.

Remarque à l'intention des médecins : Bien qu'elles ne soient pas toxiques, les fibres peuvent causer une irritation mécanique des muqueuses.

Symptômes et effets les plus importants : Une exposition prolongée sous forme d'inhalation peut mener à un cancer du poumon. Provoque une irritation des yeux et de la peau.

Situations nécessitant l'attention immédiate d'un médecin et un traitement spécial : Consulter immédiatement un médecin si le produit entre en contact avec la peau ou les yeux.

SECTION 5 : MESURES DE LUTTE CONTRE L'INCENDIE

Mesures spéciales de lutte contre l'incendie : Le produit ne pose aucun risque d'incendie inhabituel.

Agent extincteur : Éteindre l'incendie en utilisant un agent approprié.

Équipement de protection : En plus de leur uniforme complet, les pompiers doivent porter un appareil de protection respiratoire autonome (APRA) approuvé par le NIOSH avec masque complet fonctionnant en mode de pression positive.

Risques d'incendie ou d'explosion inhabituels : Ininflammable et incombustible.

Produits de combustion dangereux : La décomposition thermique peut produire de l'oxyde de carbone.

SECTION 6 : MESURES EN CAS DE FUITE ACCIDENTELLE

Protection individuelle : Porter l'équipement de protection approprié selon le degré d'exposition. Dans un environnement poussiéreux, porter un filtre de type N95 ou N100 approuvé par le NIOSH lors du nettoyage. Éviter les contacts prolongés avec la peau.

Procédure à suivre en cas de déversement : Isoler la zone dangereuse et refuser l'accès au personnel non nécessaire et non protégé. Ne pas marcher sur le produit déversé et éviter de le répandre. Éliminer rapidement la poussière afin d'éviter toute dispersion des fibres. Ne pas inhaler la poussière. Éviter les contacts prolongés avec la peau.

Précautions environnementales et méthodes de nettoyage : Procéder au nettoyage humide (essuyage, pulvérisation d'eau, etc.) ou utiliser un aspirateur muni d'un filtre empêchant la recirculation des fibres dans la zone de travail. Ne pas balayer à sec et ne pas utiliser l'air comprimé pour éliminer la poussière et les fibres des zones de travail et d'entreposage.

SECTION 7 : MANIPULATION ET ENTREPOSAGE

Précautions : À l'aide de méthodes humides, nettoyer régulièrement les zones de travail et d'entreposage où ce produit est utilisé ou stocké afin de minimiser les accumulations de poussière. Ne pas inhaler la poussière. Entreposer dans un endroit bien aéré, dans des conteneurs fermés. Utiliser des collecteurs de poussière et une ventilation par aspiration à la source lors de coupes ou de taillages avec des outils électriques. Ne pas utiliser l'air comprimé ou le balayage à sec pour éliminer la poussière des zones de travail. Passer l'aspirateur sur les vêtements poussiéreux avant de les retirer. Laver les vêtements de travail séparément et rincer la machine à laver avant toute autre utilisation. Éviter les contacts prolongés avec la peau.

Entreposage : Stocker dans un endroit bien aéré. Garder les conteneurs bien fermés.

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SECTION 8 : CONTRÔLES DE L'EXPOSITION ET PROTECTION INDIVIDUELLE

Contrôles techniques et ventilation : Utiliser la ventilation par aspiration à la source combinée à une ventilation générale pour maintenir les contaminants de l'air à un niveau égal ou inférieur à celui jugé acceptable dans les directives sur l'exposition.

Protection des yeux : Porter un équipement de protection pour les yeux et le visage. Porter des lunettes de sécurité qui respectent les normes ANSI Z87 ou qui ont été testées et approuvées en vertu de normes gouvernementales pertinentes.

Protection des voies respiratoires : Dans des conditions normales de travail lorsque les contaminants de l'air sont à un niveau inférieur à celui jugé acceptable dans les directives sur l'exposition, la protection des voies respiratoires n'est pas nécessaire. Dans un environnement où la quantité de contaminants de l'air est supérieure à la limite acceptable, porter l'équipement de protection respiratoire approuvé par le NIOSH, conformément à la norme 29 CFR 1910.134 de l'OSHA.

Protection de la peau : Porter des gants de protection et des vêtements ou combinaisons à manches longues et munis de poignets et cols non étanches.

COMPOSANT	Numéro CAS	OSHA/LEA	ACGIH/VLE
Fibre de laine minérale	65997-17-3	Valeur non établie	1 fibre/cm3 (fibres inhalables*)
Huile minérale	8012-95-1	5 mg/m3 (sous forme de brouillard d'huile)	5 mg/m3** (sous forme de brouillard d'huile) 10 mg/m3 (LECT) (sous forme de brouillard d'huile) 0,2 mg/m3 (sous forme d'huile minérale) (projet de modification des normes 2005)

* Fibres inhalables de plus de 5 micromètres (µm) de longueur dont le rapport de forme est supérieur ou égal à 3: 1, comme déterminé par la méthode de filtration par membrane avec grossissement de 400 – 450x (objectif de 4 millimètres [mm]) et éclairage par contraste de phase.

** Selon une méthode d'échantillonnage qui ne recueille pas la vapeur.

SECTION 9 : PROPRIÉTÉS PHYSIQUES ET CHIMIQUES

- **Couleur :** Gris ou blanchâtre
- **Forme physique :** Matière fibreuse
- **Odeur :** Légère
- **Caractéristiques de l'odeur :** SO
- **Seuil olfactif :** SO
- **pH (non dilué) :** SO
- **Point d'inflammabilité :** SO
- **Inflammabilité (forme solide/gazeuse) :** Ininflammable
- **Point d'ébullition :** SO
- **Taux d'évaporation :** SO
- **Point de fusion :** 2 100 °F (1 149 °C)
- **Limite inférieure d'explosivité :** SO
- **Limite supérieure d'explosivité :** SO
- **Pression de vapeur :** SO (à 70 °F)
- **Densité de vapeur :** SO
- **Densité relative :** 3
- **Solubilité :** Insoluble dans l'eau
- **Température d'auto-inflammation :** SO
- **Température de décomposition :** 2 100°C

SECTION 10 : STABILITÉ ET RÉACTIVITÉ

Stabilité : Stable dans des conditions normales d'utilisation et d'entreposage.

Polymérisation dangereuse : Ne se produira pas.

Propriétés d'oxydation : Aucune connue pour ce produit.

Produits de décomposition dangereux : La décomposition thermique (se produisant à 2 100 °F) peut produire de l'oxyde de carbone et de la fumée.

Incompatibilités : Acides (peut produire du sulfure d'hydrogène dans certaines conditions acides).

Conditions à éviter : Aucune connue pour ce produit.

SECTION 11 : INFORMATIONS TOXICOLOGIQUES

Toxicité aiguë et effets immédiats : Aucune donnée disponible pour ce produit.

DL 50 (rat) en cas d'ingestion : Aucune donnée disponible pour ce produit.
CL 50 (rat) en cas d'inhalation : Aucune donnée disponible pour ce produit.
DL 50 en cas d'application cutanée : Aucune donnée disponible pour ce produit.

Effets tardifs et chroniques : L'inhalation répétée de fibres peut faire augmenter le risque de développer un cancer du poumon.

Cancérogénicité :
CIRC : Non*, groupe 3 (inclassable en ce qui a trait à la cancérogénicité pour les humains)
NTP : Oui*
OSHA : Non répertorié

*Le NTP classifie les fibres de céramique et les fibres de laine de verre comme des substances qui « possiblement cancérigènes pour les humains ».

Mutagénicité : Aucune donnée disponible pour ce produit.

Toxicité pour la reproduction : Aucune donnée disponible pour ce produit.

Sensibilisation : Aucune donnée disponible pour ce produit.

Signes et symptômes de surexposition :

Si inhalé : Toux, éternuements et irritation nasale.
Si ingéré : Malaises gastriques.
En cas de contact avec la peau ou les yeux : Irritations et démangeaisons.

SECTION 12 : INFORMATIONS ÉCOLOGIQUES

Ce produit ne devrait pas avoir d'effets négatifs sur l'environnement. Éviter d'exposer à l'environnement lorsque possible.

Toxicité chez les poissons : SO
Informations écotoxicologiques : SO
Informations sur l'évolution des produits chimiques : SO

SECTION 13 : CONSIDÉRATIONS RELATIVES À L'ÉLIMINATION

Recycler, réutiliser et éliminer le contenu/conteneur dans une décharge approuvée, conformément à la réglementation locale/régionale/nationale/internationale. Ne pas jeter dans les égouts, au sol ou dans un plan d'eau. C'est à la personne à l'origine du déchet qu'il incombe de déterminer la méthode d'identification et d'élimination appropriée.

SECTION 14 : INFORMATIONS SUR LE TRANSPORT

Nom propre d'expédition : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.
Classe de risques : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.
Groupe d'emballage : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.
Numéro ONU : Non classé comme étant dangereux par le DOD, l'IATA/OACI et l'OMI.

SECTION 15 : INFORMATIONS RÉGLEMENTAIRES

Statut sur l'inventaire du TSCA : Tous les composants figurent sur l'inventaire du TSCA.
Articles 311 et 312 de la SARA portant sur les catégories de risques : Risques immédiats (aigus) et tardifs (chroniques).
Article 313 portant sur les produits chimiques toxiques : Le produit ne contient pas de composants soumis aux exigences de déclaration prévues à l'article 313 de la EPCRA (Emergency Planning and Community Right-To-Know Act) de 1986, ni à l'article 372 du titre 40 du CFR.
QD au titre de la CERCLA : Le produit ne contient pas de composants soumis aux exigences de déclaration des articles 304 de la SARA (CERCLA) et 302 (produits extrêmement toxiques).
Proposition 65 de la Californie : Le produit contient une substance chimique réputée par l'État de Californie comme causant le cancer (fibres de laine de verre).
Réglementations du Canada : Tous les composants de ce produit se trouve sur la Liste intérieure des substances (LIS) ou sur la Liste extérieure des substances (LES) du Canada.
Classification SIMDUT : D2B.

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SECTION 16 : AUTRES INFORMATIONS

Numéro de révision : révision 2
Date de révision : Juin 2015
Explication des codes de risque et de sécurité

- R36/37/38 – Irritant pour les yeux, le système respiratoire et la peau.
- R40(3) – Risque possible d'effets irréversibles.
- S36/37/39 – Porter des vêtements de protection appropriés, incluant des gants et un équipement de protection pour les yeux et le visage.
- S22 – Ne pas respirer la poussière.
- S26 – En cas de contact avec les yeux, les rincer immédiatement pendant quelques minutes, puis consulter un médecin.
- S28 – Après contact avec la peau, laver immédiatement à l'eau savonneuse.
- S45 – En cas d'accident ou de malaise, consulter immédiatement un médecin (lui montrer l'emballage du produit si possible).
- S51 – Utiliser seulement dans les zones bien aérées.

Acronymes

CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations des États-Unis
CIRC	Centre International de Recherche sur le Cancer
CSEO	Concentration sans effet observé
DL 50	Dose létale pour 50 % des animaux de laboratoire exposés
HSIS	Hazardous Substance Information System de l'Australie
LEA	Limite d'exposition admissible
LECD	Limite d'exposition de courte durée
MPT	Moyenne pondérée dans le temps
NIOSH	National Institute for Occupational Safety and Health des États-Unis
NTP	National Toxicology Program des États-Unis
ONU	Organisation des Nations Unies
OSHA	Occupational Safety and Health Administration des États-Unis
QD	Quantité à déclarer
SARA	Superfund Amendments and Reauthorization Act
SIMDUT	Système d'information sur les matières dangereuses utilisées au travail (Canada)
SO	Sans objet
TSCA	Toxic Substances Control Act

AVIS DE NON-RESPONSABILITÉ

Les informations de la présente FICHE SIGNALÉTIQUE doivent être fournies à tous ceux qui utiliseront, manipuleront, stockeront, transporteront ou seront exposés d'une quelconque autre manière à cette substance. Ces informations ont été préparées pour faciliter l'organisation, les opérations et la gestion des usines, ainsi que pour les personnes travaillant avec ou manipulant cette substance. Eaton's Crouse-Hinds Business estime que ces informations sont fiables et à jour à la date de publication mais ne donne aucune garantie que tel est bien le cas.

Toutes les déclarations et les informations techniques contenues dans le présent document sont basées sur des renseignements et des tests que nous croyons fiables. Leur exactitude ou leur exhaustivité ne sont pas garanties. Conformément aux conditions de vente de Crouse-Hinds, et étant donné que les conditions d'utilisation sont indépendantes de notre volonté, l'acheteur doit déterminer si le produit convient à l'utilisation prévue et en assume tous les risques et toutes les responsabilités associées.

Safety Data Sheet

24 Hour Emergency Phone Numbers:

Medical/Poison Control:

In U.S.: Call 1-800-222-1222
Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053
1-352-323-3500

NOTE: The National ResponseCenter emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

1. Identification

This Material Safety Data Sheet is available in American Spanish upon request.
Los Datos de Serguridad del Producto pueden obtenerse en Espanol si lo riquiere.

Product Name:	100% Silicone Window & Door White	**Revision Date:**	5/19/2015
Product UPC Number:	08646	**Supercedes Date:**	No Information
Product Use/Class:	Caulking Compound	**SDS No:**	00008684001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non-emergency matters)		
Preparer:	Regulatory Department		

2. Hazards Identification

EMERGENCY OVERVIEW: Under normal use conditions, this product is not expected to cause adverse health effects. High concentration of vapors may cause irritation to eyes and respiratory system.

GHS Classification

Not a hazardous substance or mixture.

Symbol(s) of Product

Not a hazardous substance or mixture.

Signal Word

Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Hydrotreated middle distillate	64742-46-7	10-25	GHS06	H331

Silica, amorphous	7631-86-9	2.5-10	GHS07	H332
Ethyltriacetoxysilane	17689-77-9	2.5-10	GHS07	H302-312-315-319-332
Silanetriol, methyl-, triaceta	4253-34-3	2.5-10	GHS07	H302-312-315-319-332
Titanium dioxide	13463-67-7	0.1-1.0	No Information	No Information

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Material is not likely to present an inhalation hazard at ambient conditions. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN!DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Wash thoroughly after handling. Remove contact lenses before using. Do not handle contact lenses until all sealant has been cleaned from fingertips, nails and cuticles. Residual sealant may transfer to contact lenses and cause severe eye irritation.

STORAGE: Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Store away from caustics and oxidizers.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Hydrotreated middle distillate	N.E.	N.E.	N.E.	N.E.
Silica, amorphous	N.E.	N.E.	N.E.	N.E.
Ethyltriacetoxysilane	N.E.	N.E.	N.E.	N.E.
Silanetriol, methyl-, triaceta	N.E.	N.E.	N.E.	N.E.
Titanium dioxide	10 mg/m3 TWA	N.E.	15 mg/m3 TWA total dust	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required.

SKIN PROTECTION: Wear nitrile or neoprene gloves.

EYE PROTECTION: Goggles or safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Not required under normal use.

HYGIENIC PRACTICES: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	White	**Physical State:**	Paste
Odor:	Acetic Acid	**Odor Threshold:**	Not Established
Density, g/cm3:	0.96 - 0.96	**pH:**	Not Established
Freeze Point, °C:	Not Established	**Viscosity (mPa.s):**	Not Established
Solubility in Water:	Not Established	**Partition Coeff., n-octanol/water:**	Not Established
Decomposition Temperature, °C:	Not Established	**Explosive Limits, %:**	N.I. - N.I.
Boiling Range, °C:	N.I. - N.I.	**Auto-Ignition Temperature, °C**	Not Established
Minimum Flash Point, °C:	93.3	**Vapor Pressure, mmHg:**	No Information
Evaporation Rate:	Slower Than n-Butyl Acetate	**Flash Method:**	Seta Closed Cup
Vapor Density:	Heavier Than Air		
Combustibility:	Does not Support Combustion		

(See "Other information" Section for abbreviation legend)
(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Oxidizing agents. Excessive heat and freezing.

INCOMPATIBILITY: Incompatible with strong bases and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal decomposition products, i.e., COx, NOx.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Under normal use conditions, this product is not expected to cause adverse health effects. During application and cure, this product releases methanol. During application and cure, this product releases acetic acid. Inhalation of vapors in high concentration may cause mild irritation of respiratory system (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Under normal use conditions, this product is not expected to cause adverse

health effects. Prolonged or repeated contact with skin may cause mild irritation.

EFFECT OF OVEREXPOSURE - EYE CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Inhalation, Skin Contact

Acute Toxicity Values
The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
64742-46-7	Hydrotreated middle distillate	7400 mg/kg Rat	>2000 mg/kg Rabbit	4.6 mg/L Rat
7631-86-9	Silica, amorphous	>3300 mg/kg Rat	>5000 mg/kg Rabbit	>20 mg/L
17689-77-9	Ethyltriacetoxysilane	1460 mg/kg Rat	1060 mg/kg Rabbit	11.6 mg/kg Rat
4253-34-3	Silanetriol, methyl-, triaceta	1602 mg/kg Rat	1060 mg/kg Rabbit	11.6 mg/L
13463-67-7	Titanium dioxide	>10000 mg/kg Rat	>5000 mg/kg Rabbit	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL METHOD: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT Proper Shipping Name: Not Regulated
DOT Technical Name: N.A.
DOT Hazard Class: N.A.
Packing Group: N.A.
Hazard SubClass: N.A.
DOT UN/NA Number: N.A.

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA12(b) components exist in this product in concentrations at or above their thresholds.

CALIFORNIA PROPOSITION 65 CARCINOGENS

WARNING: This product contains chemicals known to the State of California to cause cancer.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class Consumer COmmodity

16. Other Information

Revision Date: 5/19/2015 **Supersedes Date:** No Information

Reason for revision: HazCom2012/GHS Conversion

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	1	**Flammability:**	1	**Reactivity:**	0	**Personal Protection:**	X

VOC Less Water Less Exempt, g/L: 28.9

VOC, Material, g/L: 29

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 3.0

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H331	Toxic if inhaled.
H332	Harmful if inhaled.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS06

GHS07

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since thisdocument is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

Safety Data Sheet

24 Hour Emergency Phone Numbers
Medical/Poison Control:
In U.S.: Call 1-800-222-1222

Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053
1-352-323-3500

NOTE: The National ResponseCenter emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this SDS are further described in Section 16.

1. Identification

This Safety Data Sheet is available in American Spanish upon request.
Los Datos de Serguridad pueden obtenerse en Espanol si lo riquiere.

Product Name:	Watertight Roof Sealant	**Revision Date:**	3/2/2017
Product UPC Number:	070798182707	**Supercedes Date:**	6/19/2015
Product Use/Class:	Caulking Compound	**SDS No:**	00010004001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)	**Preparer:**	Regulatory Department

Emergency Telephone: 1-800-535-5053, 1-352-323-3500, 1-800-222-1222

Safety Data Sheet Coordinator: MSDS@DAP.com

2. Hazards Identification

EMERGENCY OVERVIEW: WARNING!Combustible liquid and vapor. At elevated temperatures, vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Keep container closed and away from heat, sparks, and open flame. Store away from caustics and oxidizers. Avoid breathing vapor. Avoid skin and eye contact. May cause eye, skin, nose, throat and respiratory tract irritation. Use only with adequate ventilation. Provide fresh air such that chemical odors cannot be detected during use and while drying. Harmful or fatal if swallowed.

GHS Classification
Acute Tox. 4 Inhalation, Carc. 1B, Muta. 1B, STOT RE 1

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
27% of the mixture consists of ingredients of unknown acute toxicity

GHS HAZARD STATEMENTS

Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects .
Carcinogenicity, category 1B	H350	May cause cancer.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P405	Store locked up.
P501	Dispose of contents/container to …

GHS SDS PRECAUTIONARY STATEMENTS

P270	Do no eat, drink or smoke when using this product.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Asphalt	8052-42-4	25-50	GHS07	H332
Calcium Carbonate	471-34-1	25-50	GHS07	H332
Stoddard solvent	8052-41-3	10-25	GHS08	H304-340-350-372
Cellulose	9004-34-6	2.5-10	GHS06	H331
Attapulgite	12174-11-7	2.5-10	GHS07	H332
Quartz	14808-60-7	0.1-1.0	GHS07	H302

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: If inhaled, remove to fresh air. If breathing is difficult, leave the area to obtain fresh air. If continued breathing difficulty is experienced, get medical attention immediately. If there are signs or symptoms of hydrogen sulfide exposure (respiratory tract irritation, headache, dizziness, nausea, gastrointestinal disturbances, coughing, a sensation of dryness and pain in the nose, throat and chest, confusion and unconsciousness), move the person to fresh air. If breathing has stopped, apply artificial respiration. Call a doctor.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist. Remove and wash contaminated clothing.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapor from this material will readily ignite at temperatures above 150 degrees F if an

ignition source is present. Vapors may form an explosive mixture with air at temperatures above 150 degrees F. Eliminate sources of ignition: heat, electrical equipment, sparks and flames. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Vapors may form explosive mixtures with air. Containers may explode if exposed to extreme heat. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion.

SPECIAL FIREFIGHTING PROCEDURES: Wear self contained breathing apparatus for fire fighting if necessary.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Immediately eliminate sources of ignition. Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Read all product instructions before using. Personal protective equipment should include impervious gloves, protective eye wear, and suitable work clothes. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN!DO NOT TAKE INTERNALLY. Remove all sources of ignition. Keep away from open flames, hot surfaces and sources of ignition. Provide adequate ventilation. Keep containers closed when not in use. Avoid heat, sparks and open flames. Wear appropriate personal protection. Avoid breathing vapor and contact with eyes, skin and clothing. Use in well ventilated area. Wash thoroughly after handling.

STORAGE: Store away from sources of ignition and heat. Do not store at temperatures above 120 degrees F. Store containers away from excessive heat and freezing. Store away from caustics and oxidizers. Keep containers tightly closed.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Asphalt	0.5 mg/m3 TWA fume, inhalable particulate matter	N.E.	N.E.	N.E.
Calcium Carbonate	N.E.	N.E.	N.E.	N.E.
Stoddard solvent	100 ppm TWA	N.E.	500 ppm TWA, 2900 mg/m3 TWA	N.E.
Attapulgite	N.E.	N.E.	N.E.	N.E.
Cellulose	10 mg/m3 TWA	N.E.	15 mg/m3 TWA total dust, 5 mg/m3 TWA respirable fraction	N.E.
Quartz	0.025 mg/m3 TWA respirable particulate matter	N.E.	50 µg/m3 TWA	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection

RESPIRATORY PROTECTION: A NIOSH-approved air purifying respirator with an organic vapor cartridge or canister may be necessary under certain circumstances where airborne concentrations are expected to exceed exposure limits. If concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. National Institute for Occupational Safety and Health (NIOSH) has recommended that the permissible exposure limit be changed to 50 micrograms respirable free silica per cubic meter of air (0.05 mg/m3) as determined by a full shift sample up to 10-hour work shift. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Wear neoprene gloves.

EYE PROTECTION: Goggles or safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Provide eyewash and solvent impervious apron if body contact may occur.

HYGIENIC PRACTICES: Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	Black	**Physical State:**	Paste
Odor:	Strong Solvent	**Odor Threshold:**	Not Established
Density, g/cm3:	1.21 - 1.21	**pH:**	Not Applicable
Freeze Point, °C:	Not Established	**Viscosity (mPa.s):**	Not Established
Solubility in Water:	No Information	**Partition Coeff., n-octanol/water:**	Not Established
Decomposition Temperature, °C:	Not Established	**Explosive Limits, %:**	N.I. - N.I.
Boiling Range, °C:	N.I. - N.I.	**Auto-Ignition Temperature, °C**	Not Established
Minimum Flash Point, °C:	63	**Vapor Pressure, mmHg:**	Not Established
Evaporation Rate:	Slower Than n-Butyl Acetate	**Flash Method:**	Pensky-Martens Closed Cup
Vapor Density:	Heavier Than Air	**Flammability:**	Combustible
Combustibility:	Does not support combustion		

(See "Other information" Section for abbreviation legend)
(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable at normal temperatures and pressures.

CONDITIONS TO AVOID: Excessive heat and freezing. Keep away from open flames, hot surfaces and sources of ignition. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Avoid contact with skin, eyes and clothing.

INCOMPATIBILITY: Open flames, hot surfaces and sources of ignition. Keep away from strong oxidizing agents, heat and open flames. Strong acids and strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Inhalation of vapors may cause irritation of the nose, throat, lungs and respiratory tract. This substance contains sulfur compounds that may form hydrogen sulfide. The rotten eggs odor of hydrogen sulfide is unreliable as an indicator of concentration. Signs and symptoms of over exposure to hydrogen sulfide include respiratory tract irritation, headaches, dizziness, nausea, gastrointestinal disturbances, coughing, a sensation of dryness and pain in the nose, throat and chest, confusion and unconsciousness. Hydrogen sulfide concentrations of 1000-2000 ppm can be extremely hazardous. This hazard evaluation is based on data from similar materials.

EFFECT OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Prolonged exposure to the skin may dry the skin and cause dermatitis or burns.

EFFECT OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Harmful or fatal if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: The International Agency for Research on Cancer (IARC) has determined

that crystalline silica in the form of quartz or cristobalite that is inhaled from occupational sources is carcinogenic to humans (Group 1-carcinogenic to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (published in June 1997) in conjunction with the use of these materials. The National Toxicology Program (NTP) classifies respirable crystalline silica as "known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (Group A2). This product contains clay, which contains crystalline silica. Crystalline silica has been listed as a carcinogen by IARC; however, the particles are coated with asphalt and are not available for inhalation. As such, there is little or no chance of inhalation of crystalline silica and resultant diseases. Breathing dust containing respirable crystalline silica may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may have the following serious chronic health effects: Excessive inhalation of respirable dust can cause pneumoconiosis, a respiratory disease, which can result in delayed, progressive, disabling and sometimes fatal lung injury. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Smoking exacerbates this disease. Individuals with pneumoconiosis are predisposed to develop tuberculosis. There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) and kidney disease. Studies in which mice were exposed to a variety of whole asphalts did not result in any increased cancer rate; mice exposed to asphalts diluted with hydrocarbon solvents had increased incidence of certain types of cancer. Brief or intermittent skin contact with this asphalt product is not expected to produce any delayed effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of mists or vapors should be reduced to a minimum.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Inhalation, Skin Contact

Acute Toxicity Values
The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
8052-42-4	Asphalt	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>20 mg/L
471-34-1	Calcium Carbonate	6450 mg/kg Rat	>2000 mg/kg Rat	>20 mg/L
8052-41-3	Stoddard solvent	>7000 mg/kg Rat	>2000 mg/kg Rabbit	21 mg/L Rat
9004-34-6	Cellulose	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5.8 mg/L Rat
12174-11-7	Attapulgite	N.I.	N.I.	20 mg/kg
14808-60-7	Quartz	500 mg/kg Rat	>2000 mg/kg	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: No Information

13. Disposal Information

DISPOSAL INFORMATION: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste. Liquids cannot be disposed of in a landfill. Do not flush into surface water or sanitary sewer system.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: Not regulated for transport as packaged. Not regulated for transport in nonbulk containers (<= 450 liters (119 gallons). The U.S. Department of Transportation (DOT) classification above is ONLY when transported in bulk containers (> 450 liters, 119 gallons).
Not a dagerous good under Internation Air Transport (IATA).
Not a dagerous good under Internation Maritime Transport (IMO).

DOT UN/NA Number: NA1993
DOT Proper Shipping Name: Combustible liquid, n.o.s.
DOT Technical Name: (Stoddard solvent)
DOT Hazard Class: Combustible
Hazard SubClass: N.A.
Packing Group: III

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

CALIFORNIA PROPOSITION 65 CARCINOGENS AND REPRODUCTIVE TOXINS

CALIFORNIA PROPOSITION 65: WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

International Regulations: As follows -

CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class Consumer Commodity

16. Other Information

Revision Date: 3/2/2017 **Supersedes Date:** 6/19/2015

Reason for revision:
Revision Description Changed
Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Product Information
02 - Hazards Identification
05 - Flammability Information
09 - Physical & Chemical Information
16 - Other Information
Revision Statement(s) Changed

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	2	**Flammability:**	2	**Reactivity:**	0	**Personal Protection:**	X

VOC Less Water Less Exempt Solvent, g/L 181.5

VOC Material, g/L: 181

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 15.0

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.

H331	Toxic if inhaled.
H332	Harmful if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS06

GHS07

GHS08

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since thisdocument is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

#1003 Asbestos Free Duct Sealing Compound

Technical Data

SEALANTS

Features and Benefits

- FDA Approved: As listed in CFR, Title 21, being composed of ingredients acceptable for packaging and transporting food.
- U.S.D.A. Acceptable: Chemically acceptable to the U.S.D.A. for use in meat and poultry processing areas under Federal Inspection.
- Dielectric Strength: Approx. 200 volts per mil (ASTM D149-64) or 10 KV.
- Chemical Resistance: Excellent resistance to water, alcohols, mild acids and bases.
- Vehicle Bleedout: None
- Non-Corrosive: Will not corrode Metals.
- Non-Irritant: No irritation to eyes or skin as listed in CFR, Title 16, "Appraisal of the safety of chemicals in food, drugs, and cosmetics.
- Paintability: Yes.

UNDERWRITERS LABORATORIES, INC.
R11374 CLASSIFIED UL
CLASSIFIED
GENERAL USE TAPES
SURFACE BURNING CHARACTERISTICS
Flame Spread 5
Smoked Developed 15
23N3

DESCRIPTION: #1003 Asbestos Free Sealer is a gray, permanently soft, non-toxic compound which will adhere to most clean dry surfaces. #1003 Asbestos free Sealer will not adversely affect other plastic materials or corrode metals. It also has no adverse effect to human skin. #1003 Sealer is 100% solids.

USES:

#1003 Sealer is used primarily by the building and specifically by the electrical trade to seal around electrical boxes, flashings, and service mast entries, etc. It can be shaped by hand to any form and reused if necessary. #1003 has countless other applications in the refrigeration, heating and cooling, plumbing, and metal fabrication fields as well as being an excellent general purpose sealant around the home. #1003 may be painted immediately after application and will not bleed through the dry paint.

FORMS: #1003 Sealer is individually wrapped and placed in plastic bags with convenient reusable clips to seal out dirt and moisture that might contaminate the product. #1003 Sealer is available in one and five pound packages, packed fifty pounds net per carton. Also in bulk upon request.

Properties	Test Method	Value
Base		Non-drying synthetic polymers and oils
Fillers		Saturated mineral fillers and other inert ingredients
Specific Gravity	ASTM D71-72	1.65 to 1.7
Cone penetration	ASTM D217-52T	Load of 300 gm..5 sec. @ 25°F; 100 - 115 mm/10
Temperature usage range	25°F to +120° F	Recommended
Temperature tolerance range	-30°F to +175° F	Will not slump at +275°F

5017 South 38th Street
St. Louis, MO. 63116

Phone: 314-752-4667
Fax: 314-752-4035
Email: Info@SealersInc.com

SEALERS, INC.

1003 Safety Data Sheet (SDS, GHS Format)

May be used to comply with OSHA's Hazard Communication Standards 29 CRP 1910.1200. Standards must be consulted for specific requirements.

Section 1 - Identification

Manufacturer's Name & Address:
Sealers
5017 S. 38th St.
St. Louis, MO 63116

Emergency Telephone Number:
(314) 752-4667

Chemical Family:
Butyl Rubber Composite

Date Prepared:
01/01/2015

Product Use:
Thumb Grade Sealer

Product Name:
#1003

Section 2 – Hazards Identification

Hazardous Components: None **ACGIH TLV:** No Data

HMIS Ratings: Health: 1 Flammability: 0 Reactivity: 0

The primary components utilized in the manufacturing of this product are believed to be non-hazardous and are listed under TOSCA regulations.

Effects of Acute Exposure to Product:	None known.
Effects of chronic Exposure to Product:	None known.
Exposure Limits:	None established.
Irritability of Product:	None known.
Sensitization to Product:	None known.
Carcinogenicity:	No evidence.
Teratogenicity:	None known
Reproductive Toxicity:	None known
Mutagenicity:	None known
Synergistic Products:	None known

Section 3 – Composition/Physical Properties

None of the components of this product are hazardous as defined by OSHA Hazard Communication Standard (29 CFR 1910. 1200). If more information is required by a nurse or physician in the event of a medical emergency, contact us at the number listed in Section 1.

n/a = Not applicable

CAS Number:	n/a
Chemical Name:	n/a
Percent by Weight:	n/a

Section 4 – First Aid Measures

Specific Measures:

Eye Contact:	Do not remove, seek medical attention immediately.
Skin contact:	If too sensitive, seek medical attention.
Inhalation:	Not applicable
Ingestion:	Not likely, but if ingested, could constipate or create a blockage. Seek medical attention.

HMIS Health Rating: 1

Section 5 – Fire Fighting Measures

Extinguishing Media: Use water, Foam, Carbon Dioxide, or dry chemical. Nitrogen oxides and carbon monoxides may be involved.

HMIS Flammability Rating: 0

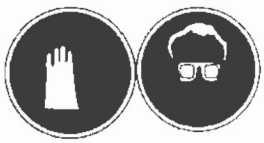
Section 6 – Accidental Release Measures

Leak or Spill Procedure: As the product is a solid, a spill is not really possible. If the material is dumped or falls into an undesirable location and is no longer usable, dispose of the material as described in Section 13 of this document.

Section 7 – Handling and Storage

Handling Procedures & Equipment:	Wash hands with soap and water before eating.
Storage Requirements:	Store in a cool, dry place.

Section 8 – Exposure Controls and Personal Protection



Personal Protective Equipment: **HMIS "B" RATING**

Gloves (specify):	Cotton or other protective gloves.
Respirator (specify):	None needed.
Eye (specify):	Glasses or goggles recommended. Good industrial practice should be observed.
Footwear (specify):	Industrial shoes to protect skin from adhesive contact.
Clothing (specify):	Long sleeves, long trousers to protect skin from contact.
Other (specify):	None known

Section 9 – Physical and Chemical Properties

Physical State: Solid **Odor & Appearance:** Dark gray thumable

solid with no odor.

Vapor Pressure:	n/a	**Vapor Density:**	n/a	
pH:	n/a	**Evaporation Rate:**	n/a	
Specific Gravity:	1.78 g/cc	**Coeff. Water/Oil Dist.:**	n/a	n/a = Not applicable
VOC (Grams/Liter):	n/a	**Boiling Point (C):**	n/a	
Solubility in Water:	Insoluble	**Odor Threshold (ppm):**	n/a	
Freezing Point (C):	n/a	**Volatiles by Wt. (%):**	2	
Flash Point (C):	310 COC			

Section 10 – Stability and Reactivity

Chemical Stability: Stable, no chemical decomposition.

Possibility of hazardous reactions: None are known.

Hazardous decomposition products: None are known.

HMIS Reactivity Rating: 0

Section 11 – Toxicological Information

Route of Entry: Skin Contact (x) Skin Absorption ( ) Eye Contact (x) Inhalation ( ) Ingestion ( )

Effects of Acute Exposure to Product:	None known.
Effects of chronic Exposure to Product:	None known.
Exposure Limits:	None established.
Irritability of Product:	None known.
Sensitization to Product:	None known.
Carcinogenicity:	No evidence.
Teratogenicity:	None known
Reproductive Toxicity:	None known
Mutagenicity:	None known
Synergistic Products:	None known

Section 12 – Ecological Information

Ecotoxicity: There is no evidence that this product is harmful to the environment.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Mobility: Accidental dropping may lead to mixing with soil, but there is no evidence that this would cause adverse ecological effects.

Section 13 – Disposal Considerations

To the best of our knowledge the product is not considered a hazardous waste based on U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in accordance with all local, state and federal regulations.

Section 14 – Transport Information

DOT Shipping Regulation:	Not Regulated
IATA Shipping Regulation:	Not Regulated –material not dangerous (non-hazardous)

Section 15 – Regulatory Information

OSHA		This product or its components are non-hazardous
SARA (311 or 312)	**CAS Number:**	n/a
	Chemical Name:	n/a
	Percent by Weight:	n/a
	Proposition 65:	This product does not contain any chemicals known to the state of California to cause cancer or birth defects
EU Directives		Meets the RoHS requirements
Canada: **CEPA & DSL**		Not regulated

n/a = Not applicable

Section 16 – Other Information

Prepared By:	**Sealers, INC**
Phone Number:	**(314) 752-4667**
Date:	**01/01/2015**