SAFETY DATA SHEET

Airgas

Carbon Dioxide

Section 1. Identification

GHS product identifier	:	Carbon Dioxide
Chemical name	:	Carbon dioxide
Other means of identification	:	Carbonic, Carbon Dioxide, Carbonic Anhydride, R744, Carbon Dioxide USP
Product use	:	Synthetic/Analytical chemistry.
Synonym	:	Carbonic, Carbon Dioxide, Carbonic Anhydride, R744, Carbon Dioxide USP
SDS #	:	001013
Supplier's details	:	Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253
24-hour telephone	:	1-866-734-3438

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	:	GASES UNDER PRESSURE - Liquefied gas Simple asphyxiant.

GHS label elements

Hazard pictograms :

Signal word	:	Warning
Hazard statements	:	Contains gas under pressure; may explode if heated. May cause frostbite. May displace oxygen and cause rapid suffocation. May increase respiration and heart rate.

Precautionary statements

General	:	Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position.
Prevention	:	Use and store only outdoors or in a well ventilated place.
Response	:	Not applicable.
Storage	:	Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.
Disposal	:	Not applicable.
Hazards not otherwise classified	:	In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation. May cause frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Carbon dioxide

Other means of identification : Carbonic, Carbon Dioxide, Carbonic Anhydride, R744, Carbon Dioxide USP

CAS number/other identifiers

CAS number : 124-38-9

Product code : 001013

Ingredient name	%	CAS number
Carbon Dioxide	100	124-38-9

Any concentration shown as a range is to protect confidentiality or is due to batch 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. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : As this product is a gas, refer to the inhalation section.

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.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : As this product is a gas, refer to the inhalation section.

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 : No specific treatment.

Section 4. First aid measures

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

Extinguishing media

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

Unsuitable extinguishing media : None known.

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

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. Contact supplier immediately for specialist advice. 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. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. 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 : Immediately contact emergency personnel. Stop leak if without risk.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. 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). Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Section 7. Handling and storage

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 away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Carbon Dioxide	**ACGIH TLV (United States, 3/2015). Oxygen Depletion [Asphyxiant].** STEL: 54000 mg/m³ 15 minutes. STEL: 30000 ppm 15 minutes. TWA: 9000 mg/m³ 8 hours. TWA: 5000 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 54000 mg/m³ 15 minutes. STEL: 30000 ppm 15 minutes. TWA: 9000 mg/m³ 10 hours. TWA: 5000 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 9000 mg/m³ 8 hours. TWA: 5000 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 54000 mg/m³ 15 minutes. STEL: 30000 ppm 15 minutes. TWA: 18000 mg/m³ 8 hours. TWA: 10000 ppm 8 hours.

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, fume scrubbers, 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 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 contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious 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. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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 air-fed 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 : Gas. [Liquefied compressed gas.]

Color : Colorless.

Molecular weight : 44.01 g/mole

Molecular formula : C-O2

Melting/freezing point : Sublimation temperature: -79°C (-110.2 to °F)

Critical temperature : 30.85°C (87.5°F)

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Flash point : [Product does not sustain combustion.]

Burning time : Not applicable.

Burning rate : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

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

Vapor pressure : 830 (psig)

Vapor density : 1.53 (Air = 1)

Liquid Density@BP: Solid density = 97.5 lb/ft3 (1562 kg/m3)

Specific Volume (ft^3/lb) : 8.7719

Gas Density (lb/ft^3) : 0.114

Relative density : Not applicable.

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : 0.83

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not applicable.

Carbon Dioxide

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

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.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

IDLH : 40000 ppm

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

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.

Section 11. Toxicological information

Skin contact : No known significant effects or critical hazards.

Ingestion : As this product is a gas, refer to the inhalation section.

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.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Carbon Dioxide	0.83	-	low

Mobility in soil

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

Section 12. Ecological information

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. Empty Airgas-owned pressure vessels should be returned to Airgas. 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. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1013	UN1013	UN1013	UN1013	UN1013
UN proper shipping name	CARBON DIOXIDE	CARBON DIOXIDE	CARBON DIOXIDE	CARBON DIOXIDE	CARBON DIOXIDE
Transport hazard class(es)	2.2 	2.2 	2.2 	2.2 	2.2 
Packing group	-	-	-	-	-
Environment	No.	No.	No.	No.	No.
Additional information	Limited quantity Yes. Packaging instruction Passenger aircraft Quantity limitation: 75 kg Cargo aircraft Quantity limitation: 150 kg	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). Explosive Limit and Limited Quantity Index 0.125 Passenger Carrying Road or Rail Index 75	-	-	Passenger and Cargo AircraftQuantity limitation: 75 kg Cargo Aircraft Only Quantity limitation: 150 kg

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

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 : **TSCA 8(a) CDR Exempt/Partial exemption**: This material is listed or exempted.
United States inventory (TSCA 8b): This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Sudden release of pressure

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Carbon Dioxide	100	No.	Yes.	No.	No.	No.

State regulations

Massachusetts : This material is listed.
New York : This material is not listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.

California Prop. 65

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Carbon dioxide	No.	No.	No.	No.

International regulations

International lists

National inventory

Australia : This material is listed or exempted.
Canada : This material is listed or exempted.
China : This material is listed or exempted.
Europe : This material is listed or exempted.
Japan : This material is listed or exempted.
Malaysia : Not determined.
New Zealand : This material is listed or exempted.
Philippines : This material is listed or exempted.
Republic of Korea : This material is listed or exempted.

Section 15. Regulatory information

Taiwan : This material is listed or exempted.

Canada

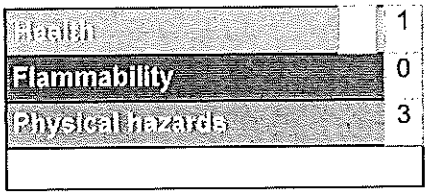
WHMIS (Canada) : Class A: Compressed gas.

CEPA Toxic substances: This material is listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Section 16. Other information

Canada Label requirements : Class A: Compressed gas.

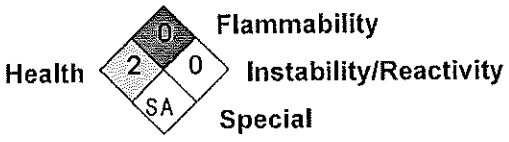
Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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.

Procedure used to derive the classification

Classification	Justification
Press. Gas Liq. Gas, H280	Expert judgment

History

Date of printing : 2/11/2016

Date of issue/Date of revision : 2/11/2016

Date of previous issue : No previous validation

Version : 0.01

Section 16. Other information

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

References : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

1. Identification

Product identifier Carquest Brake Parts Cleaner

Other means of identification

Product code ~~1005 (CRC# 09620)~~ (WES 5089)

Recommended use Brake 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	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements

Signal word Danger

Hazard statement Contains gas under pressure; may explode if heated. Causes skin irritation. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49°C/120°F. Use with adequate ventilation. 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. Avoid breathing mist or vapor. Avoid breathing gas. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical attention. Collect spillage.

Storage Store locked up. Protect from sunlight. Store in a well-ventilated place. 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) None known.

Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Tetrachloroethylene	Perchloroethylene	127-18-4	90 - 100
Carbon dioxide		124-38-9	1 - 5

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 Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Rinse with water. 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. Irritation of eyes and mucous membranes. Irritation of nose and throat. Skin irritation. May cause redness and pain.

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.

5. Fire-fighting measures

Suitable extinguishing media Dry chemical, CO2, or water spray.

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. Exposure to high temperature may cause can to burst. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

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.

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. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage. 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. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

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. 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. Use with adequate ventilation. 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 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. Avoid breathing mist or vapor. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49 °C/120 °F. Do not handle or store near an open flame, heat or other sources of ignition. Exposure to high temperature may cause can to burst. 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
Carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3
		5000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Tetrachloroethylene (CAS 127-18-4)	Ceiling	200 ppm
	TWA	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

* - For sampling details, please see the source document.

Exposure guidelines

US - Minnesota Haz Subs: Skin designation applies

Tetrachloroethylene (CAS 127-18-4) 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. Eye wash facilities and emergency shower must be available when handling this product.

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: Viton®. Polyvinyl alcohol (PVA). Nitrile. Silver Shield®

Other Wear appropriate chemical resistant 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 Colorless.

Odor Irritating.

Odor threshold 50 ppm

pH Not available.

Melting point/freezing point -8.1 °F (-22.3 °C) estimated

Initial boiling point and boiling range 250.3 °F (121.3 °C) estimated

Flash point None (Tag Closed Cup)

Evaporation rate Very fast.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapor pressure 1352.4 hPa estimated

Vapor density 5.76 (air = 1)

Relative density 1.62

Solubility (water) 0.02 % (77 °F (25 °C))

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity (kinematic) Not available.

Percent volatile 97.7 % estimated

Other information

Partition coefficient (oil/water) 2.88

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. Contact with incompatible materials. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Hydrogen chloride. Trace amounts of chlorine and phosgene. Carbon oxides. Halogenated materials. Carbonyl halides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects.

Product	Species	Test Results
Carquest Brake Parts Cleaner		
Acute		
Dermal		
LD50	Rabbit	3305.1284 mg/kg estimated
Inhalation		
LC50	Rat	20.4779 mg/l, 4 Hours estimated
Oral		
LD50	Rat	2691.8162 mg/kg estimated

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not available.
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	May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Tetrachloroethylene (CAS 127-18-4) 2A Probably carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Tetrachloroethylene (CAS 127-18-4) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product		Species	Test Results
Carquest Brake Parts Cleaner			
Aquatic			
Fish	LC50	Fish	19.1805 mg/l, 96 hours estimated
Components		**Species**	**Test Results**
Tetrachloroethylene (CAS 127-18-4)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4.73 - 5.27 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)
Tetrachloroethylene 2.88

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 This material and its container must be disposed of as hazardous waste. Consult authorities before disposal. 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 D039: Waste Tetrachloroethylene
F001: Waste Halogenated Solvent - Spent Halogenated Solvent Used in Degreasing
F002: Waste Halogenated Solvent - Spent Halogenated Solvent

US RCRA Hazardous Waste U List: Reference
Tetrachloroethylene (CAS 127-18-4) U210

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1950
UN proper shipping name Aerosols, poison, Packing Group III, Limited Quantity, MARINE POLLUTANT
Transport hazard class(es)
Class 2.2
Subsidiary risk 6.1(PGIII)
Label(s) 2.2, 6.1
Packing group Not applicable.
Environmental hazards
Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions Not available.
Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, non-flammable, containing substances in Division 6.1, Packing Group III, Limited Quantity

Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	2P
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, MARINE POLLUTANT
Transport hazard class(es)	
Class	2
Subsidiary risk	6.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
General information	DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

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.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Tetrachloroethylene (CAS 127-18-4)

CERCLA Hazardous Substance List (40 CFR 302.4)

Tetrachloroethylene (CAS 127-18-4)

CERCLA Hazardous Substances: Reportable quantity

Tetrachloroethylene (CAS 127-18-4) 100 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

Tetrachloroethylene (CAS 127-18-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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 - No Pressure Hazard - Yes Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No

US state regulations

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

Carbon dioxide (CAS 124-38-9)
Tetrachloroethylene (CAS 127-18-4)

US. Massachusetts RTK - Substance List

Carbon dioxide (CAS 124-38-9)
Tetrachloroethylene (CAS 127-18-4)

US. Pennsylvania Worker and Community Right-to-Know Law

Tetrachloroethylene (CAS 127-18-4)
Carbon dioxide (CAS 124-38-9)

US. Rhode Island RTK

Tetrachloroethylene (CAS 127-18-4)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Tetrachloroethylene (CAS 127-18-4) Listed: April 1, 1988

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	0 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	This product is regulated as a Brake Cleaner. This product is not compliant to be sold for use in California and New Jersey. This product is compliant in all other states.
VOC content (CA)	0 %
VOC content (OTC)	0 %

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	12-20-2013
Revision date	08-07-2014
Prepared by	Allison Cho
Version #	02
Further information	CRC # 491G

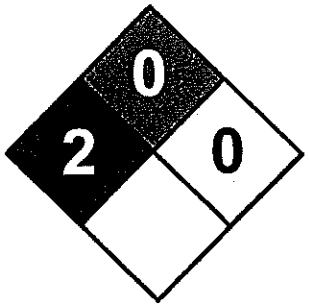
HMIS® ratings

Health: 2*
Flammability: 0
Physical hazard: 0
Personal protection: B

NFPA ratings

Health: 2
Flammability: 0
Instability: 0

NFPA ratings



Disclaimer

CRC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.

MATERIAL SAFETY DATA SHEET

WARREN OIL COMPANY, INC.

CARQUEST Full Synthetic GL-5 GEAR OIL

Date of Preparation: June 3, 2014

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CARQUEST Full Synthetic GL-5 Gear Oil (all grades, all containers)
Synonyms: CARQUEST Full Synthetic SAE 75W-90 Gear Oil, CARQUEST Full Synthetic SAE 75W-140 Gear Oil
Product Use: Multi-purpose hypoid gear lubricant for use in passenger cars, trucks and off-highway vehicles,
Chemical Family: Blend

Manufacturer: Warren Unilube, Inc.
915 E. Jefferson Ave.
West Memphis, AR 72301
Phone: 1-800-428-9380
Fax: 870-732-7851

CHEMTREC NUMBER
Domestic: 800-424-9300
International: 703-527-3887

EMERGENCY TELEPHONE NUMBER:
(800) 428-9284
MSDS Prepared by: Warren Oil Company, Inc.
WHMIS (Canada): THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

SECTION 2: COMPOSITION/INFORMATION AND INGREDIENTS

Chemical Ingredient
Synthetic base stocks and additives.
The synthetic base stocks contains <3% (w/w) DMSO extract, according to IP346.

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: *Oil mist, if generated.*

	HMIS Hazard Rating	NFPA Hazard Rating
H	1	0
F	1	1
R	0	0

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
WHMIS (Canada): THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

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

Potential Health Effects:
Inhalation: Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem.
Eye Contact: Expected to be minor eye irritant.
Skin Contact: Repeated or prolonged skin contact may cause dermatitis.
Ingestion: Not expected to be acutely toxic.
Chronic: None known.

SECTION 4: FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Get medical attention.
Eye Contact: Flush eyes with large amounts of water, for at least 15 minutes, until irritation subsides. If irritation persists, get medical attention.
Skin Contact: No treatment is necessary under ordinary circumstances. Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs and persists, seek medical attention. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should seek immediate medical attention.
Ingestion: If swallowed, DO NOT induce vomiting. If victim exhibits signs of lung aspiration such as coughing or chocking, seek immediate medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability: NFPA Class-IIIB combustible material.
Flashpoint (method): Typical >360°F / >182°C (ASTM D-92)
Special Properties: This material can burn but will not readily ignite. This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point.
Autoignition Temperature: No Data Available
Extinguishing Media: Use dry chemical, foam, carbon dioxide or water fog. Carbon dioxide and inert gas can displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces.
Fire-Fighting Instructions: Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion. Avoid breathing smoke and vapor.
Fire-Fighting Equipment: Wear self-contained breathing apparatus and protective clothing. Water may be used to cool containers exposed to heat or flame.
Hazardous Combustion By-products: Carbon monoxide, carbon dioxide, aldehydes, ketones, and combustion products of sulfur and nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures: Remove sources of ignition. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with absorbent pads. Large spills may be taken up with pump or vacuum.

SECTION 7: HANDLING AND STORAGE

Storage Temperature: Ambient
Storage Pressure: Atmospheric

General: Keep container closed. Store in a cool, well-ventilated place. Keep away from heat, sparks and flame. Empty containers may contain residues.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

A: General Product Information

If oil mists are generated, observe the OSHA exposure limit of 5 mg/m3. The following are recommended exposure limits for hydrogen sulfide: OSHA PEL 8H TWA 10ppm; 14mg/m3, Ceiling 20 ppm and ACGIH 8H TWA 10ppm; 14mg/m3.

B: Component Exposure Limits

No information is available.

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. If product is heated above 70 C (155 F) in the presence of water, hydrogen sulfide vapors may be released. Ventilation should be sufficient to keep hydrogen sulfide levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses. Wear chemical goggles or face shield if splash or mist occurs.

Personal Protective Equipment: Skin

Use impervious gloves for prolonged contact. Wear oil-impervious garments if contact is unavoidable.

Personal Protective Equipment: Respiratory

If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

Personal Protective Equipment: General

Use good hygiene when handling petroleum product. Launder contaminated clothing before reuse. Excessive misting may cause slippery floors - wear appropriate footwear. Eye wash fountains are recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous liquid
Vapor Density: > 1 (air =1.0)
Vapor Pressure: Not available
Evaporation rate: Not available
Boiling Point: Not available
Melting/Freezing Point: Not available
pH: Not available
Coefficient of Water/Oil Distribution: Not available
Solubility in Water: Insoluble
Specific Gravity: 0.89
Flashpoint (method): Typical >360°F / >182°C (ASTM D-92)
Odor: Typical petroleum
Color: Light amber
Odor Threshold: Not available

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Yes
Conditions to Avoid: Avoid formation of mists, keep away from extreme heat, sparks, and open flame.
Incompatibility: This product may react with strong oxidizing agents.
Hazardous Decomposition: Decomposition of this product may yield oxides of boron, calcium, magnesium, nitrogen, phosphorus, sulfur including hydrogen sulfide and zinc as well as carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Oral Toxicity (rats): Practically non-toxic (LD50: greater than 5000 mg/kg.)
Dermal Toxicity (rabbits): Practically non-toxic (LD50: greater than 2000 mg/kg.)
Inhalation Toxicity (rats): Practically non-toxic (LC50: greater than 5 mg/l).
Eye Irritation (rabbits): Practically non-irritating. (Draize score: greater than 6 but 15 or less.)
Skin Irritation (rabbits): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3.)
Carcinogenicity
A: General Product Information: No data available on the product as a whole. Note that USED oils tend to contain higher amounts of the cancer-causing aromatics, which have been linked to scrotal and lung cancer in humans.
B: Component Carcinogenicity: None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Regulatory Information: All disposals must comply with federal, state and local requirements.

SECTION 14: TRANSPORTATION INFORMATION

US DOT Information: Not regulated as a hazardous material
Hazard Class: Not classified
UN/UA#: Not classified
Packing Group: Not classified
Required Label (s): None
IMO/IMDG Shipping Description: Not regulated as dangerous goods for transport.
ICA/IATA Shipping Description: Not regulated as dangerous goods for transport.
International Transportation Regulations: Not regulated as dangerous goods.
Canada: Transportation (TDG): Not regulated. Shipping Name: None, UN Number: None, Class Description: None,
PIN Number: None.
THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.
DSL/NDSL Status: This product and /or all components are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.

SECTION 15: REGULATORY INFORMATION

TSCA: This material is in compliance with the Toxic Substances control Act (15 USC 2601-2629) and is listed in the TSCA Inventory.

Hazard Categories for SARA 311/312 Reporting:

Health	Immediate (Acute)	No
Health	Delayed (Chronic)	No
Physical	Fire	No
Physical	Sudden Release of Pressure	No
Physical	Reactive	No
Physical	Nuisance Mist/Dust Only	No

01=SARA 313	11=NJRTK	21=TSCA Sect 5(a)(2)	02=MASS RTK
12=CERCLA 3024	22=TSCA Sect 6	03=NTP Carcinogen	
13=MN RTK	23=TSCA Sect 12 (b)		

04=CA Prop 65-Carcin	14=ACGIM TWA	24=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	25=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	26=TSCA Sect 4(a)
07=IARC Group 2A	17=OSHA PEL	27=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	28=OSHA CEILING
09=SARA 302/304	20=EPA Carcinogen	
10=PA RTK		

The following components of this material are found on the regulatory lists indicated.

DISTILLATES, HYDROTREATED LIGHT PARAFFINIC is found on lists: 14, 15, 17

NEW JERSEY RTK CLASSIFICATION: Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: Petroleum Oil (Gear Oil)

CALIFORNIA PROPOSITION 65 WARNING:
Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm may be found in petroleum products. Although it is possible to sufficiently refine the petroleum products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling these petroleum products.

Other state regulations may apply.

WHMIS (Canada): Not controlled under WHMIS.

SARA TITLE III INFORMATION

Section 311/312 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive
	X			

SARA Hazardous Substances

Ingredient	CAS No.	%, wt	Sec 313	Sec 302	RQ, lb	TPQ, lb
None						

Key: Sec 313 = Toxic Chemicals, Section 313
Sec 302 = Extremely Hazardous Substances (EHS)
RQ = Reportable Quantity of EHS
TPQ = Threshold Planning Quantity of EHS

Section 16 - Other Information

THIS 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. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MAKE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABLENESS AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

SAFETY DATA SHEET

1. Identification

Product identifier	**Carquest Glass Cleaner**
Other means of identification	
Product code	1045, CRC# 09624
Recommended use	Glass 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	Gases under pressure	Liquefied gas
Health hazards	Reproductive toxicity	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements

Signal word	Warning
Hazard statement	Contains gas under pressure; may explode if heated. Suspected of damaging fertility or the unborn child. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49°C/120°F. Use with adequate ventilation. 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. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	If exposed or concerned: Get medical attention.
Storage	Store locked up. Protect from sunlight. Store in a well-ventilated place. 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)	None known.

Supplemental information

9.7% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 9.7% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	80 - 90
Liquefied Petroleum Gas		68476-86-8	5 - 10
2-Butoxyethanol		111-76-2	1 - 3
Ethanol		64-17-5	1 - 3
Ammonia		7664-41-7	< 1
Methanol		67-56-1	< 0.2

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation — If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.

Skin contact — Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact — Rinse with water. Get medical attention if irritation develops and persists.

Ingestion — Call a POISON CENTER or doctor/physician.

Most important symptoms/effects, acute and delayed — Direct contact with eyes may cause temporary irritation.

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 — Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

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.

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.

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. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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). Stop the flow of material, if this is without risk. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas. 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. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

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. 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 get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. 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
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3 50 ppm
Ammonia (CAS 7664-41-7)	PEL	35 mg/m3 50 ppm
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm
Methanol (CAS 67-56-1)	PEL	260 mg/m3 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3 5 ppm
Ammonia (CAS 7664-41-7)	STEL	27 mg/m3 35 ppm
	TWA	18 mg/m3 25 ppm
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Methanol (CAS 67-56-1)	STEL	325 mg/m3 250 ppm
	TWA	260 mg/m3 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
Methanol (CAS 67-56-1)	Skin designation applies.

US - Tennesse OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.

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.

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. Rubber.

Other Wear appropriate chemical resistant 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 eat, drink or 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.

Odor Ammoniacal.

Odor threshold Not available.

pH 10.5

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C) estimated

Flash point None (Tag Closed Cup)

Evaporation rate Slow.

Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.3 % estimated
Flammability limit - upper (%)	25 % estimated
Vapor pressure	280.3 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.97 estimated
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	446 °F (230 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	99.6 % 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. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Product	Species	Test Results
Carquest Glass Cleaner		
Acute		
Dermal		
LD50	Rabbit	14759.4121 mg/kg estimated
Inhalation		
LC50	Rat	7998.0244 mg/l, 4 hours estimated
Oral		
LD50	Rat	14201.8389 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	Direct contact with eyes may cause temporary irritation.

Respiratory sensitization	Not available.
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	Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not classified.
Chronic effects	Prolonged inhalation may be harmful. May be harmful if absorbed through skin. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product		Species	Test Results
Carquest Glass Cleaner			
Aquatic			
Fish	LC50	Fish	6294.9312 mg/l, 96 hours estimated
Acute			
Crustacea	EC50	Daphnia	202.6171 ppm, 48 hours estimated
Components		**Species**	**Test Results**
2-Butoxyethanol (CAS 111-76-2)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1550 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	>= 1000 mg/l, 96 hours
Ammonia (CAS 7664-41-7)			
Aquatic			
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.43 - 0.47 mg/l, 96 hours
Ethanol (CAS 64-17-5)			
Aquatic			
Acute			
Algae	EC50	Green algae (Chlorella kessleri)	1450 mg/l
Crustacea	EC50	Water flea (Daphnia magna)	11.2 mg/l, 48 hours
			7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	15300 mg/l, 96 hours
			> 100 mg/l, 96 hours
			> 100 mg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	13000 - 15300 mg/l, 96 hours
Methanol (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol	0.81, log Pow
Ethanol	-0.31
Methanol	-0.77

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 This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Consult authorities before disposal. 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 Not regulated.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Label(s)	2.2
Packing group	Not applicable.
Special precautions for user	Not available.
Special provisions	Not available.
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	2L
Special precautions for user	Not available.
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	Not available.
Special precautions for user	Not available.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

2-Butoxyethanol (CAS 111-76-2)

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2)

CERCLA Hazardous Substances: Reportable quantity

Not listed.

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

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
Food and Drug Administration (FDA)	Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - Yes Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2)
Ammonia (CAS 7664-41-7)
Ethanol (CAS 64-17-5)
Methanol (CAS 67-56-1)

US. Massachusetts RTK - Substance List

2-Butoxyethanol (CAS 111-76-2)
Ethanol (CAS 64-17-5)

US. Pennsylvania Worker and Community Right-to-Know Law

Ammonia (CAS 7664-41-7)
Methanol (CAS 67-56-1)
2-Butoxyethanol (CAS 111-76-2)
Ethanol (CAS 64-17-5)

US. Rhode Island RTK

2-Butoxyethanol (CAS 111-76-2)
Ammonia (CAS 7664-41-7)
Methanol (CAS 67-56-1)

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

1,4-Dioxane (CAS 123-91-1)	Listed: January 1, 1988
Ethylene oxide (CAS 75-21-8)	Listed: July 1, 1987
Methyl isobutyl ketone (CAS 108-10-1)	Listed: November 4, 2011

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009
Methanol (CAS 67-56-1)	Listed: March 16, 2012

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Ethylene oxide (CAS 75-21-8)	Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	9.6 %
Consumer products (40 CFR 59, Subpt. C)	Compliant

State

Consumer products	This product is regulated as a Glass Cleaner (aerosol). This product is compliant for use in all 50 states.
VOC content (CA)	9.6 %
VOC content (OTC)	9.6 %

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)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
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	07-24-2014
Prepared by	Allison Cho
Version #	01
Further information	CRC # 411A
HMIS® ratings	Health: 1* Flammability: 0 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 1 Flammability: 0 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.

SAFETY DATA SHEET
Chain and Cable

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Chain and Cable

Product number L0135-063, L0135-063C

Recommended use of the chemical and restrictions on use

Application Lubricant for chains, wires and cables.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Manufacturer

Lubriplate Lubricants Co.
Corporate Headquarters
129 Lockwood Street
Newark, NJ 07105

Midwest Office & Plant
1500 Oakdale Ave.
Toledo, OH 43605
419-691-2491
419-693-3806

Emergency telephone number

Emergency telephone Chem-Tel: 1-800-255-3924 (US & Canada only)
01-813-248-0585 (Outside US & Canada)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Aerosol 2 - H223 Press. Gas, Compressed - H280

Health hazards Skin Sens. 1 - H317 Asp. Tox. 1 - H304

Environmental hazards Not Classified

Label elements

Hazard symbols

Signal word Danger

Hazard statements

H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.

Chain and Cable

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use
P261 Avoid breathing spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see medical advice on this label).
P331 Do NOT induce vomiting.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P412 Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Distillates (petroleum), hydrotreated light, Calcium Sulfonate

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Distillates (petroleum), hydrotreated light CAS number: 64742-47-8	**60-100%**
Classification Asp. Tox. 1 - H304	

Distillates (petroleum), hydrotreated heavy naphthenic CAS number: 64742-52-5	**5-10%**
Classification Not Classified	

Carbon dioxide CAS number: 124-38-9	**1-5%**
Classification Simple Asphyxiant - USH03	

Chain and Cable

2-butoxyethanol	**1-5%**
CAS number: 111-76-2	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319	

Pentene, 2,4,4-trimethyl-, sulfurized	**<1%**
CAS number: 68515-88-8	
Classification Skin Sens. 1B - H317	

Calcium Sulfonate	**<1%**
CAS number: 61789-86-4	
Classification Skin Sens. 1 - H317	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

Ingestion Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Skin Contact Rinse with water.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Spray/mists may cause respiratory tract irritation.

Ingestion Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact May be slightly irritating to eyes. May cause discomfort.

Chain and Cable

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

Chain and Cable

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion.

Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

Chain and Cable

7. Handling and storage

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapors and spray/mists.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Distillates (petroleum), hydrotreated heavy naphthenic

Mineral oil, excluding metal working fluids (pure, highly and severely refined)
ACGIH

Carbon dioxide

Long-term exposure limit (8-hour TWA): OSHA 5000 ppm 9000 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 5000 ppm 9000 mg/m³
Short-term exposure limit (15-minute): ACGIH 30000 ppm 54000 mg/m³

2-butoxyethanol

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 240 mg/m³
Sk
Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 97 mg/m³
A3

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
Sk = Danger of cutaneous absorption.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Carbon dioxide (CAS: 124-38-9)

Immediate danger to life and health 40,000 ppm

2-butoxyethanol (CAS: 111-76-2)

Chain and Cable

Immediate danger to life and health	700 ppm

Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	No specific hand protection recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.
Environmental exposure controls	Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Aerosol.
Color	Off-white.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.93 (without propellant)

Chain and Cable

Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Oxidizing materials. Chlorine.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	27,956.7

Acute toxicity - dermal

Notes (dermal LD_{50})	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	61,504.74

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l)	615.05

Skin corrosion/irritation

Animal data	Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization	Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization	May cause an allergic skin reaction.

Chain and Cable

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Spray/mists may cause respiratory tract irritation.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin Contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	May be slightly irritating to eyes. May cause discomfort.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.

12. Ecological information

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
Toxicity	Based on available data the classification criteria are not met.

Persistence and degradability

Persistence and degradability	The degradability of the product is not known.

Bioaccumulative potential

Bio-Accumulative Potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Mobility in soil

Chain and Cable

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents.

14. Transport information

UN Number

UN No. (TDG) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

UN No. (DOT) UN1950

UN proper shipping name

Proper shipping name (TDG) AEROSOLS

Proper shipping name (IMDG) AEROSOLS

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (DOT) AEROSOLS

Transport hazard class(es)

DOT hazard class 2.1

DOT hazard label 2.1

TDG class 2.1

TDG label(s) 2.1

IMDG Class 2.1

ICAO class/division 2.1

Transport labels

Chain and Cable

DOT transport labels

Packing group

TDG Packing Group	None
IMDG packing group	None
ICAO packing group	None
DOT packing group	None

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

EmS	F-D, S-U
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
The following ingredients are listed or exempt:

2-butoxyethanol
1.0 %

Naphthenic acids, zinc salts
1.0 %

Zinc neodeconoate
1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

Chain and Cable

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
The following ingredients are listed or exempt:

2-butoxyethanol

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

Carbon dioxide

2-butoxyethanol

Inventories

US - TSCA
All the ingredients are listed or exempt.

Chain and Cable

US - TSCA 12(b) Export Notification
None of the ingredients are listed or exempt.

16. Other information

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.
ICAO: Technical instructions for the safe transport of dangerous goods by air.
IMDG: International maritime dangerous goods.
CAS: Chemical abstracts service.
ATE: Acute toxicity estimate.
LC_{50}: Lethal concentration to 50 % of a test population.
LD_{50}: Lethal dose to 50% of a test population (median lethal dose).
EC_{50}: 50% of maximal effective concentration.
PBT: Persistent, bioaccumulative and toxic substance.
vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Aerosol = Aerosol
Press. Gas, Dissolved = Gas under pressure: Dissolved gas

Training advice

Only trained personnel should use this material.

Revision date

11/2/2021

Revision

2

Supersedes date

2/3/2021

SDS No.

5194

Hazard statements in full

H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
USH03 May displace oxygen and cause rapid suffocation

End of SDS

SAFETY DATA SHEET
Chain & Cable Fluid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Chain & Cable Fluid

Product number L0135-007, L0135-013, L0135-035, L0135-039, L0135-040, L0135-040CE, L0135-049, L0135-100

Recommended use of the chemical and restrictions on use

Application Lubricating oil

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Manufacturer

Lubriplate Lubricants Co.
Corporate Headquarters
129 Lockwood Street
Newark, NJ 07105

Midwest Office & Plant
1500 Oakdale Ave.
Toledo, OH 43605
419-691-2491
419-693-3806

Emergency telephone number

Emergency telephone Chem-Tel: 1-800-255-3924 (US & Canada only)
01-813-248-0585 (Outside US & Canada)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Sens. 1 - H317

Environmental hazards Aquatic Acute 3 - H402 Aquatic Chronic 3 - H412

Label elements

Pictogram

Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Chain & Cable Fluid

Precautionary statements

P261 Avoid breathing vapor/ spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Pentene, 2,4,4-trimethyl-, sulfurized , Calcium Sulfonate

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Distillates (petroleum), hydrotreated heavy naphthenic **60-100%**
CAS number: 64742-52-5

Classification
Not Classified

2-butoxyethanol **1-5%**
CAS number: 111-76-2

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319

Pentene, 2,4,4-trimethyl-, sulfurized **1-5%**
CAS number: 68515-88-8

Classification
Skin Sens. 1B - H317

Calcium Sulfonate **<1%**
CAS number: 61789-86-4

Classification
Skin Sens. 1 - H317

The full text for all hazard statements is displayed in Section 16.

Composition comments * The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

Chain & Cable Fluid

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. 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. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin Contact	It is important to remove the substance from the skin immediately. In the event of any sensitization symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognized skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	May cause sensitization or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	May cause skin sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically. May cause sensitization or allergic reactions in sensitive individuals.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Chain & Cable Fluid

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes.

Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Chain & Cable Fluid

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class Miscellaneous hazardous material storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Distillates (petroleum), hydrotreated heavy naphthenic

Mineral oil, excluding metal working fluids (pure, highly and severely refined)
ACGIH

2-butoxyethanol

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 240 mg/m³
Sk
Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 97 mg/m³
A3

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
Sk = Danger of cutaneous absorption.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

2-butoxyethanol (CAS: 111-76-2)

Immediate danger to life and health 700 ppm

Exposure controls

Protective equipment

Chain & Cable Fluid

Appropriate engineering controls	Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Amber.
Odor	Mild.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	>288°C (>550.4°F)

Chain & Cable Fluid

Flash point	> 154°C/310°F Cleveland open cup.
Evaporation rate	< 0.01 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	<0.0013 kPa @ 25°C
Vapor density	> 5
Relative density	0.93
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	177°C/350°F
Decomposition Temperature	Not available.
Viscosity	32 cSt @ 40°C
Explosive properties	Not applicable.
Oxidizing properties	Not available.
Other information	None.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	16,666.67

Acute toxicity - dermal

Notes (dermal LD_{50})	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	36,666.67

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.

Chain & Cable Fluid

ATE inhalation (vapours mg/l)	366.67
Skin corrosion/irritation	
Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitization	
Respiratory sensitization	Based on available data the classification criteria are not met.
Skin sensitization	
Skin sensitization	May cause skin sensitization or allergic reactions in sensitive individuals.
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard	
Aspiration hazard	Based on available data the classification criteria are not met.

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	May cause sensitization or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin Contact	May cause skin sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical considerations	Skin disorders and allergies.

12. Ecological information

Chain & Cable Fluid

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
Toxicity	Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

Persistence and degradability

Persistence and degradability	The degradability of the product is not known.

Bioaccumulative potential

Bio-Accumulative Potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Mobility in soil

Mobility	No data available.

Other adverse effects

Other adverse effects	None known.

13. Disposal considerations

Waste treatment methods

General information	The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International)	Not applicable.

UN proper shipping name

Proper shipping name (International)	Not applicable.

Transport hazard class(es)

Transport Labels (International)	No transport warning sign required.

Transport labels

No transport warning sign required.

Chain & Cable Fluid

DOT transport labels
No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

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

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
The following ingredients are listed or exempt:

2-butoxyethanol
1.0 %

Naphthenic acids, zinc salts
1.0 %

Zinc neodeconoate
1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

Chain & Cable Fluid

California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
The following ingredients are listed or exempt:

2-butoxyethanol

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:

2-butoxyethanol

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

Distillates (petroleum), hydrotreated light naphthenic

2-butoxyethanol

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

2-butoxyethanol

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

2-butoxyethanol

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

2-butoxyethanol

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

2-butoxyethanol

Inventories

US - TSCA
All the ingredients are listed or exempt.

Distillates (petroleum), hydrotreated heavy naphthenic

Distillates (petroleum), hydrotreated light naphthenic

2-butoxyethanol

Calcium Sulfonate

Naphthenic acids, zinc salts

Distillates (petroleum), hydrotreated middle

Zinc neodeconoate

Pentene, 2,4,4-trimethyl-, sulfurized

US - TSCA 12(b) Export Notification
None of the ingredients are listed or exempt.

Chain & Cable Fluid

16. Other information

Classification abbreviations and acronyms	Skin Sens. = Skin sensitisation Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	Rereleased through new GHS Software.
Revision date	5/19/2017
Revision	1.02
Supersedes date	3/16/2015
SDS No.	4888
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H402 Harmful to aquatic life. H412 Harmful to aquatic life with long lasting effects.

End of SDS

Safety Data Sheet

Issue Date: 01-April-2015 **Revision Date:** 02-Dec-2014

1. IDENTIFICATION

Product Identifier
Product Name Champion -20 Degree Windshield Wash

Other means of identification
SDS # CPD-011

UN/ID No UN1987

Recommended use of the chemical and restrictions on use
Recommended Use Window cleaner.

Details of the supplier of the safety data sheet
Supplier Address
Champion Packaging & Distribution
1840 International pkwy
Woodridge, IL 60517

Emergency Telephone Number
Company Phone Number 630-972-0100
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Blue liquid **Physical State** Liquid **Odor** Characteristic slight alcohol odor

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Specific target organ toxicity (single exposure)	Category 1
Flammable Liquids	Category 3

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Toxic in contact with skin
Causes damage to organs
Toxic if inhaled
Flammable liquid and vapor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response
IF exposed: Call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Call a poison center or doctor/physician if you feel unwell
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Hazards
Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Methyl alcohol	67-56-1	30-40

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	IF exposed: Call a POISON CENTER or doctor/physician.
Eye Contact	Wash eyes immediately with running water, lifting the lower and upper lids occasionally. Rinse for 7-15 minutes. Get medical attention as soon as possible.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Inhalation	Remove victim to fresh air at once. Restore and/or support breathing as required. Keep victim warm and at rest. Get medical attention as soon as possible.
Ingestion	Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Most important symptoms and effects

Symptoms May be harmful in contact with skin. Harmful if swallowed. Causes damage to organs. Methanol is a poisonous narcotic chemical that may exert its effects through inhalation, skin absorption, or ingestion. Elimination of methanol from the body is slow, and the toxic effects can be compounded by repeated excessive exposures over several days. Toxic effects are exerted upon the CNS, especially the optic nerve and possibly the retinae. Symptoms of overexposure include dizziness, visual impairment, nausea, respiratory failure, muscular incoordination, and narcosia. Visual disturbances may clear temporarily, then reoccur and progress to blindness. Prolonged or repeated contact with the skin may cause dermatitis, erythema, and scaling. Vapors of methanol are mildly irritating to the eyes, while direct contact with the liquid may cause irritation, pain, and transient corneal opacity. Ingestion of methanol can cause blindness and death. The fatal dose is 100-250mL, although death from ingestion of less than 33 mL has been reported.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide (CO2). Dry chemical. Alcohol foam. Water mist. Water fog.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames and can react vigorously with oxidizing agents.

Hazardous Combustion Products Toxic gases and vapors (i.e., carbon monoxide, formaldehyde) may be released in a Methanol fire.

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 Use personal protective equipment as required. Remove all sources of ignition. Provide adequate ventilation.

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 Clean-Up Small quantities may be absorbed on paper towels. Evaporate in a safe place (such as a fume hood). Burn paper in an approved incinerator or open pit away from buildings and people. Large quantities can be collected and atomized in a suitable combustion chamber. Spills in sensitive areas may be diluted and flushed to ground with a water spray. Do not flush to sewer or other confined space. Spills of 5,000 pounds or more must be reported to the National Response Center (800-424-8802) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Wear protective gloves/protective clothing and eye/face protection. Keep cool. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store away from heat, sparks, flame. Store away from incompatible materials.

Incompatible Materials Strong oxidizing agents such as nitrates, perchlorates or Sulfuric acid.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl alcohol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m^3 (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m^3 (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m^3 (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m^3 STEL: 250 ppm STEL: 325 mg/m^3

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses.

Skin and Body Protection Impervious gloves and protective clothing are recommended.

Respiratory Protection Any air-supplied respirator or self-contained breathing apparatus. Only NIOSH or MSHA approved equipment should be used.

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	Liquid		
Appearance	Blue liquid	**Odor**	Characteristic slight alcohol odor
Color	Blue	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	7-10	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	86.7 °C / 188 °F	
Flash Point	38.3 °C / 101 °F	CC (closed cup)
Evaporation Rate	5.9	(butyl acetate = 1)
Flammability (Solid, Gas)	Liquid-Not applicable	
Upper Flammability Limits	36.5	
Lower Flammability Limit	6.7	
Vapor Pressure	97	@ 68°F (20 ° C)
Vapor Density	1.1	(Air=1)
Specific Gravity	0.954	(Water = 1)
Water Solubility	Fully miscible	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid
Excessive heat and fire. Strong oxidizing agents.

Incompatible Materials
Strong oxidizing agents such as nitrates, perchlorates or Sulfuric acid.

Hazardous Decomposition Products
Toxic gases and vapors (i.e., carbon monoxide, formaldehyde) may be released in a Methanol fire.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Toxic in contact with skin.

Inhalation Toxic if inhaled.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl alcohol 67-56-1	= 5628 mg/kg (Rat)	= 15800 mg/kg (Rabbit)	= 83.2 mg/L (Rat) 4 h = 64000 ppm (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure Causes damage to organs.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methyl alcohol 67-56-1		28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

Chemical Name	Partition Coefficient
Methyl alcohol 67-56-1	-0.77

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl alcohol 67-56-1		Included in waste stream: F039		U154

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Methyl alcohol 67-56-1	Toxic Ignitable

14. TRANSPORT INFORMATION

Note For combination packagings (e.g. boxes) containing inner packagings (e.g. bottles) of 5 L (1.33 gal) or less, the product is shipped as a limited quantity per 49 CFR 173.150(b). For IBC's "totes", the product is shipped as UN1987, ALCOHOLS, N.O.S. (METHANOL), 3, III.

DOT

UN/ID No	UN1987
Proper Shipping Name	Alcohols, n.o.s. (Methanol)
Hazard Class	3
Packing Group	III

IATA

Proper Shipping Name	The product as packaged is not approved for air transportation.

IMDG

UN/ID No	UN1987
Proper Shipping Name	Alcohols, flammable, toxic, n.o.s. (Methanol)
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	III
Marine Pollutant	Methanol
Description	For combination packagings (e.g. boxes) containing inner packagings (e.g. bottles) of 5 L (1.33 gal) or less, the product is shipped as a limited quantity per IMDG Code Chapter 3.4.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methyl alcohol	Present	X		Present		Present	X	Present	X	X

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*

IECSC *- China Inventory of Existing 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

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl alcohol 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Methyl alcohol - 67-56-1	67-56-1	33	1.0

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Methyl alcohol - 67-56-1	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Methyl alcohol 67-56-1	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	1	3	0	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	1	2	1	B

Issue Date: 01-April-2015
Revision Date: 02-Dec-2014
Revision Note: New format

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

Last Revision Date 09/11/2018
Date Prepared 07/26/2018

Chisel All In One

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

Product Name • Chisel All In One
Product Formula • 9853

RELEVANT IDENTIFIED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Relevant Use • Bio-based organic concrete remover.

SUPPLIER DETAILS

• Handy Helper Chemicals
2131 W Republic Road PVB # 321
Springfield, MO 65807
Ph: 417-224-4757
http://www.handyhelperchemicals.com/

SECTION 2: HAZARD IDENTIFICATION

United States (US) - According to OSHA 29 CFR 1920.1200 Hazard Communication Standard

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Hazard Classification • Serious Eye Damage/Eye Irritation - 2A
Skin Corrosion/Irritation - 3

LABEL ELEMENTS

Signal Word and Pictogram • Warning

Warning

NO SYMBOL

HAZARD STATEMENTS

H316	Causes mild skin irritation
H319	Causes serious eye irritation

PRECAUTIONARY STATEMENTS

P332+P313	If skin irritation occurs: Get medical advice/attention.
P264	Wash thoroughly after handling.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337	If eye irritation persists: consult a doctor.

OTHER HAZARDS •

Chemical Identity	CAS	Percent Weight
Sugar Byproducts	Proprietary	<30
2-Butoxyethanol	111-76-2	<3
No other reportable hazardous materials.	N/A	

INHALATION • If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Call a physician immediately.

SKIN • Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse.

EYE • Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician if irritation persists.

INGESTION • Do not induce vomiting. Never give anything by mouth to an unconscious person. Dilute by drinking two large glasses of water. Call a physician immediately.

SUITABLE EXTINGUISHING MEDIA • Use non-flammable or non-explosive extinguishing media.

SPECIFIC HAZARDS • No known unusual hazards in a fire or explosion situation.

SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS • In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

FOR NON-EMERGENCY PERSONNEL

- For non-emergency personnel, ventilate area of leak or spill and remove all ignition sources. Wear appropriate personal protective equipment as required to prevent any contamination of skin, eyes, and personal clothing. Isolate release area. Do not touch or walk through spilled material unless wearing the appropriate protective equipment. Keep unnecessary and unprotected personnel from entering.

FOR EMERGENCY RESPONDERS

- For emergency responders, as an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

ENVIRONMENTAL PRECAUTIONS

ACCIDENTAL RELEASE ENVIRONMENTAL

- Stop leak if you can do it without risk. If possible, keep from entering into drains, surface water, or ground water. This product is biodegradable.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

CONTAINMENT AND CLEANUP

- Contain and recover liquid when possible. Cover drains or cap spill when safe. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Small spills may be flushed to the sanitary sewer with approval from local authorities.

PRECAUTIONS FOR SAFE HANDLING

- Protect against physical damage. Store in a cool, dry well-ventilated location. Avoid storing in direct sunlight when possible. Separate from incompatible materials such as strong acids or strong bases. Do not store in containers made from soft metals such as aluminum, magnesium, zinc, or galvanized steel.

CONDITIONS FOR SAFE STORAGE AND INCOMPATIBILITIES

- Protect against physical damage. Store in a cool, dry well-ventilated location. Avoid storing in direct sunlight when possible. Separate from incompatible materials such as strong acids or strong bases. Do not store in containers made from soft metals such as aluminum, magnesium, zinc, or galvanized steel.

CONTROL PARAMETERS

Chemical Identity	CAS	TLV
Sugar Byproducts	Proprietary	N/E
2-Butoxyethanol	111-76-2	50 ppm
No other reportable hazardous materials.	N/A	N/A

APPROPRIATE ENGINEERING CONTROLS

- Use adequate ventilation systems as needed to maintain air concentrations below occupational exposure standards.

INDIVIDUAL PROTECTIONS MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

EYE / FACE PROTECTION	• Chemical safety glasses.
SKIN PROTECTION	• Nitrile gloves.
RESPIRATORY PROTECTION	• None required under normal use.

Appearance	Clear liquid.	**Lower Limits**	Not available.
Odor	Light chemical odor.	**Vapor Pressure**	Not available.
pH	2.2 - 2.8 neat	**Vapor Density**	Not available.
Melting Freezing Point	Not available.	**Relative Density**	1.06 g/ml
Initial Boiling Point	Not available.	**Solubility**	Miscible with water.
Flash Point	DNF	**Partition Coefficient**	Not available.
Evaporation Rate	Not available.	**Auto Ignition Temp**	Not available.
Flammability	Not available.	**Decomposition Temp**	Not available.
VOC (g/L)	0 g/L	**Viscosity**	Not available.

Reactivity	• No dangerous reaction known under conditions of normal use.
Chemical Stability	• Stable under normal temperatures and pressures.
Possibility of Haz Rxns	• Will not occur.
Conditions to Avoid	• No unusual conditions.
Incompatible Materials	• Do not mix with strong acids or bases. Do not mix with any other chemical unless instructed to do so by the manufacturer.
Hazardous Decomposition	• In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, soot, and smoke may be produced.

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity	No specific information available for mixture.
Skin Corrosion/Irritation	No specific information available for mixture.
Serious Eye Damage/Irritation	No specific information available for mixture.
Respiratory or Skin Sensitization	No specific information available for mixture.
Germ Cell Mutagenicity	No specific information available for mixture.
Carcinogenicity	No specific information available for mixture.
Reproductive Toxicity	No specific information available for mixture.
STOT Single Exposure	No specific information available for mixture.
STOT Repeated Exposure	No specific information available for mixture.
Aspiration Hazard	No specific information available for mixture.

Target Organs	Skin.
Routes of Entry Exposure	Ingestion, inhalation, skin, eye.Ingestion, inhalation, skin, eye.

POTENTIAL HEALTH EFFECTS

INHALATION ACUTE	• May irritate nose, throat and lungs.
INHALATION CHRONIC	• Vapors or mists may aggravate pre-existing lung conditions.
SKIN ACUTE	• May cause irritation. Prolonged exposure may cause redness or pain. and should be avoided.
SKIN CHRONIC	• Sensitivity of the skin may occur with repeated, prolonged exposure.
EYE ACUTE	• May cause redness, tearing, swelling and pain. Prolonged exposure to eyes should be avoided.
EYE CHRONIC	• No data available.
INGESTION ACUTE	• May irritate gastrointestinal tract. Ingestion of large amounts may cause nausea, vomiting and diarrhea.
INGESTION CHRONIC	• No data available.

TOXICITY	• Not enough information on the mixture is available.
PERSISTENCE & BIODEGRADABILITY	• Not enough information on the mixture is available. The components of the mixture are determined as either readily biodegradable or inherently biodegradable. It is
BIOACCUMULATIVE POTENTIAL	• Not enough infomation on the mixture is available.
MOBILITY IN SOIL	• Not enough infomation on the mixture is available.
OTHER ADVERSE EFFECTS	• Not enough infomation on the mixture is available.

DISPOSAL CONSIDERATIONS	• Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

TRANSPORT	• Not regulated by D.O.T.
ENVIRONMENTAL HAZARDS	• None known.
SPECIAL PRECAUTIONS	• None known.

SARA TITLE III INFORMATION

Chemical Identity	CAS / CAT CODE	PERCENT WT
None Reportable		

OTHER REGULATORY INFORMATION

- **TSCA (Toxic Substance Control Act):** All ingredients of this product are listed on the TSCA inventory.
- **CARCINOGENICITY:** Not listed by IARC, NTP, or OSHA.

- **CALIFORNIA PROPOSITION 65:** This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins which would be subject to the proposition.

Last Revision Date 09/11/2018 **Date Prepared** 07/26/2018

KEY TO ABBREVIATIONS

N/E = Not Established. CAS = Chemical Abstract Service. ppm = Parts Per Million
g/L = Grams per Liter mg/m3 = milligrams per cubic meter

LIABILITY DISCLAIMER

- This SDS provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. THIS SDS MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, THIS SDS DOES NOT REMIT RESPONSIBILITY FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Safety Data Sheet

Issue Date 01-Aug-2013 **Revision Date:** 20-Sept-2017 **Version** 1

1. IDENTIFICATION

Product Identifier

Product Name Clean & Brite Foaming Wash 'n Wax

Other means of identification

SDS #

Recommended use of the chemical and restrictions on use

Recommended Use Cleaning solution.

Details of the supplier of the safety data sheet

Supplier Address

North Woods®
4415 S Taylor Dr.
Sheboygan, WI 53081

Emergency Telephone Number

Company Phone Number 800-242-7694
Emergency Telephone (24 hr) INFOTRAC 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Physical State Liquid

Classification

Acute toxicity – Oral	Category 1
Acute toxicity – Dermal	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1A
Serious eye damage/eye irritation	Category 1

Signal Word

Danger

Hazard Statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye damage

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response
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 or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF INHALED: 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
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium Hydroxide	1310-58-3	2-4
Proprietary Surfactant Blend		91-96

The specific chemical identity of this composition is being withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact — Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

Skin Contact — Wash with soap and water. If skin irritation persists, call a physician.

Inhalation — Remove to fresh air. Call a physician if you feel unwell.

Ingestion — Rinse mouth. Do not induce vomiting. Seek medical attention immediately.

Most important symptoms and effects

Symptoms — May cause eye burns and permanent eye damage. Contact may cause irritation and redness. May cause irritation to the mucous membranes and upper respiratory tract.

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 Not determined.

Specific Hazards Arising from the Chemical
Non-flammable or combustible.

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. If conditions are safe, remove containers from fire area or cool with a stream of water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Neutralize solution with a dilute acid. Place in appropriate containers for disposal. Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. Use only in well-ventilated areas. Do not use pressure to empty drums.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store away from incompatible materials.
Incompatible Materials	Acids. Acidic mixtures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium Hydroxide	2 mg/m3	2 mg/m3	2 mg/m3

Appropriate engineering controls

Engineering Controls Ventilation systems. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear chemical goggles OR full face shield to protect face.

Skin and Body Protection Rubber gloves.

Respiratory Protection If it is possible to generate significant levels of mists, a NIOSH approved or equivalent respirator is recommended.

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	Liquid		
Appearance	Not determined	**Odor**	Grape/Bubble Gum
Color	Brown	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	12.0-12.2	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	N/A	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.09-1.11	
Water Solubility	Soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
Acids. Acidic mixtures.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye damage.

Skin Contact Causes skin irritation. Harmful in contact with skin.

Inhalation Harmful if inhaled.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Hydroxide	= 214 mg/kg (Rat)	Not available	Not available

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
None				

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence/Degradability
Not determined

Bioaccumulation
Not determined

Mobility

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
RCRA –Resource Conservation and Recovery Authorization Act Hazardous Waste	D002 (Corrosive)
Disposal Methods	Where possible recycling is preferred to disposal or incineration. If recycling is not practical, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers.

14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/cosigner/sender is responsible to ensure that the packaging, labeling and markings are in compliance with the selected mode of transport.

Land Transport (DOT)

UN number	: 1824
Description of goods	: Potassium Hydroxide Solution
Class	: 8
Packing Group	: II
Environmental Hazards	: No

15. REGULATORY INFORMATION

International Inventories : Not determined

US Federal Regulations

SARA 313 : CAS # 111-76-2 applies to R-(OCH2CH2)n-OR', where n=1,2 or 3, R=Alkyl C7 or less, or R=Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, Chemical Category N230.

SARA 311/312 : Acute Health Hazard

US State Regulations

California Prop 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth or other reproductive defects.

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards** Not determined **Personal Protection** Not determined
	3	0	0	
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	
	3	0	0	

Issue Date	01-Aug-2013
Revision Date:	20-Sept-2017
Revision Note	New format

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.

BUTTERFIELD COLOR®
Engineered Concrete Performance
625 W. Illinois Ave., Aurora IL 60506
Ph.: (630) 906-1980 - Fax: (630) 906-1982
www.butterfieldcolor.com

Safety Data Sheet

Clear Guard® Cure and Seal

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

Section 1 Identification

PRODUCT IDENTITY:	CLEAR GUARD® CURE AND SEAL
PRODUCT USES:	Concrete Cure and Seal
COMPANY IDENTITY:	Butterfield Color®
COMPANY ADDRESS:	625 W Illinois Ave
COMPANY CITY:	Aurora, IL 60506
COMPANY PHONE:	1-630-906-1980
EMERGENCY PHONES:	CHEMTREC: 1-800-424-9300 (USA)
	CANUTEC: 1-613-996-6666 (CANADA)

Section 2, Hazard(s) identification

Warning!!
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. (CAT:1)
CAUSES EYE IRRITATION.(CAT:2)
MAY CAUSE DROWSINESS OR DIZZINESS.(CAT:3)
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.(CAT: 2)
EXPOSURE PREVENTION:
STRICT HYGIENE!

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H226	Combustible liquid(North America);Flammable liquid & vapor(Elsewhere).(CAT:3)
H304	May be fatal if swallowed and enters airways.(CAT:1)
H315	Causes skin irritation.(CAT:2)
H320	Causes eye irritation.(CAT:2)
H332	Harmful if inhaled.(CAT:4)
H335	May cause respiratory irritation.(CAT:3)
H336	May cause drowsiness or dizziness.(CAT:3)
H371	May cause damage to organs.(CAT:2)
H411	Toxic to aquatic life with long lasting effects.(CAT:2)

2.2 PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P210	Keep away from heat, sparks, open flames, hot surfaces, no smoking
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash with soap & water thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with soap & water.
P304+340	IF INHALED: Remove victim to fresh air & keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if prese & easy to do - Continue rinsing.
P309+311	If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P332+313	If skin irritation occurs: Get medical advice/attention.
P337+313	If eye irritation persists, get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
501	Dispose of contents/container in accordance with local/regional/national/international regulations

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

Section 3, Composition / Information on Ingredients

MATERIAL	CAS#	EINECS#	WT %
Acrylic Resin	9010-88-2	-	20-30
Xylenes	1330-20-7	215-535-7	15-25
Light Aromatic Naphtha	*64742-95-6	-	30-55
1,2,4-Trimethylbenzene	95-63-6	202-436-9	10-20
Ethylbenzene	100-41-4	202-849-4	0-10

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

Section 4, First Aid Measures

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & DELAYED:
See Section 11 for symptoms/effects, acute & delayed.

4.2 GENERAL ADVICE:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

4.3 EYE CONTACT:
If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. Minimum flushing's for 15 minutes. Seek immediate medical attention.

4.4 SKIN CONTACT:
If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

4.5 INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention.

4.6 SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

4.7 NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Section 5, Fire Fighting Measures

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:

NO open flames, NO sparks, & NO smoking. Above flash point, use a closed system, ventilation, explosion-proof electrical equipment, and lighting. Do NOT use compressed air for filling, discharging, or handling.

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:

Use dry powder, AFFF, alcohol-resistant foam, water spray, carbon dioxide.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots).

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:

FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE

Isolate from oxidizers, heat, sparks, electric equipment & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty container very hazardous! Continue all label precautions!

Section 6, Accidental Release Measures

6.1 SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Trained personnel using pre-planned procedures should respond to uncontrolled releases. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area).

6.2 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, EMERGENCY PROCEDURES:

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves, they should be Level B: **triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard-hat, and Self-Contained Breathing Apparatus** specific for the material handled, goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

6.3 ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

6.4 METHODS AND MATERIAL FOR CONTAINMENT & CLEAN-UP:
Absorb spilled liquid with poly pads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

Section 7, Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING:
Isolate from oxidizers, heat, sparks, electric equipment & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Avoid prolonged or repeated contact with skin. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Keep in fireproof surroundings. Keep separated from strong oxidants, strong acids. Keep inside a well-ventilated room. Do not store above 49° C/120° F. Keep container tightly closed & upright when not in use to prevent leakage.

7.3 NONBULK: CONTAINERS:
Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handle with care. Never store food, feed, or drinking water in containers, which held this product.

7.4 PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:
Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, Provincial, or local procedures.

7.5 EMPTY CONTAINER WARNING:
Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATICELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY BURST AND CAUSE INJURY OR DEATH.

Section 8, Exposure Controls / Personal Protective Equipment

8.1 EXPOSURE LIMITS:

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Acrylic Resin	9010-88-2	-	None Known	None Known
Xylenes	1330-20-7	215-535-7	100 ppm	100 ppm A4

Light Aromatic Naphtha	*64742-95-6	-	100 ppm	25 ppm	
1,2,4-Trimethylbenzene	95-63-6	202-436-9	25 ppm	25 ppm	
Ethylbenzene	100-41-4	202-849-4	100 ppm	100 ppm A3	

MATERIAL	CAS#	EINECS#	CEILING	STEL (OSHA/ACGIH)	HAP
Xylenes	1330-20-7	215-535-7	None Known	150 ppm	Yes
Ethylbenzene	100-41-4	202-849-4	None Known	125 ppm	Yes

In addition, using manufacturers' data, based on EPA Method 311, the following EPA Hazardous Air Pollutants **may be present in trace amounts (less than 0.1%): Benzene, Toluene, Polycyclic Aromatics**

8.2 APPROPRIATE ENGINEERING CONTROLS:

RESPIRATORY EXPOSURE CONTROLS

Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS

Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxiliary positive pressure Self-Contained Breathing Apparatus.

VENTILATION

LOCAL EXHAUST:	Necessary	MECHANICAL (GENERAL):	Necessary
SPECIAL:	None	OTHER:	None

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

HAND PROTECTION:

Use gloves chemically resistant to this material. Preferred examples: Butyl rubber, Chlorinated Polyethylene, Polyethylene, Ethyl vinyl alcohol laminate ("EVAL"), Polyvinyl alcohol ("PVA"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber ("nitril") or ("NBR"), Polyvinyl chloride ("PVC") or "vinyl"), Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

Section 9, Physical & Chemical Properties

APPEARANCE:	Liquid, Water-White
ODOR:	Aromatic
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	142° 142° 171°* C/288° 288° 340°* F(*=End Point)
FLASH POINT (TEST METHOD):	38.33° C / 101° F (TCC)
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class II
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	1.0
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20° C	4.4
VAPOR DENSITY (air=1):	3.9
GRAVITY @ 68/68° F / 20/20° C:	
DENSITY:	0.888
SPECIFIC GRAVITY (Water=1):	0.888
POUNDS/GALLON:	7.4
WATER SOLUBILITY:	Negligible
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	462° C / 864° F
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs./Sq In):	75.0 Vol% / 659.0 g/L / 5.5 Lbs./Gal
TOTAL VOC'S (TVOC)*:	75.0 Vol% / 659.0 g/L / 5.5 Lbs./Gal
NONEXEMPT VOC'S (CVOC)*:	75.0 Vol% / 659.0 g/L / 5.5 Lbs./Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	24. 0 Wt% / 203.7 g/L / 1.7 Lbs./Gal
NONEXEMPT VOC PRESSURE (mm of Hg @ 20° C):	0.0
VISCOSITY @ 20° C (ASTM D445):	Not Available

* Using CARB (California Air Resources Board Rules).

Section 10, Stability & Reactivity

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
Isolate from oxidizers, heat, sparks, electric equipment & open flame.

10.3 INCOMPATIBLE MATERIALS:
On combustion forms irritating and toxic gases including carbon monoxide, reacts violently with strong oxidants, strong acids, causing fire & explosion hazard. Attacks many plastics, coatings.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide, Carbon Dioxide from burning.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

Section 11, Toxicological Information

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Primary irritation to skin, defatting, dermatitis. Absorption thru skin increases exposure.
Primary irritation to eyes, redness, tearing, blurred vision.
Liquid can cause eye irritation. Wash thoroughly after handling.

11.12 INHALATION:
Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful. Acute overexposure can cause harm to affected organs by routes of entry. Use of alcoholic beverages enhances the harmful effect.

11.13 SWALLOWING:
Harmful or fatal if swallowed.
Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.
The symptoms of chemical pneumonitis may not show up for a few days.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED
Chronic overexposure can cause harm to affected organs by routes of entry.
Persons with severe skin, liver or kidney problems should avoid use.

11.3 CHRONIC HAZARDS

11.31 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
Potential Cancer Hazard based on tests with laboratory animals using Ethylbenzene. Lung tumors have been reported in laboratory mice. Overexposure may create cancer risk. Leukemia been reported in humans from Benzene. This product contains less than 59 ppm of Benzene. Not considered hazardous in such low concentrations. Absorption thru skin may be harmful. Studies with laboratory animals indicate this product can cause damage to fetus. Depending on degree of exposure, periodic medical examination is indicated. Some persons may be more sensitive to the substance's effect on blood cells.

11.32 IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

11.33 SENSITIZATION TO THE PRODUCT: No component of this product is known as a sensitizer.

11.34 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.35 EMBRYOTOXICITY: No known reports of embryo toxic effects in humans.

11.36 TERATOGENICITY: No known reports of teratogen effects in humans.

11.37 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A mutagen is a chemical, which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance, which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS#	EINECS#	LOWEST KNOWN LETHAL DOSE DATA
			LOWEST KNOWN LD50 (ORAL)
Light Aromatic Naphtha	*64742-95-6		2900.0 mg/kg(Rats)

Section 12, Ecological Information

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:
The most sensitive known aquatic group to any component of this product is: Fish are adversely affected by components of this product. The substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur in aquatic animals.

12.4 MOBILITY IN SOIL
Mobility of this material has not been determined.

12.5 DEGRADABILITY
This product is partially biodegradable.

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

Section 13, Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers and liners may retain some product residues. Vapor from some 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. Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.

ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D001

Section 14, Transportation Information

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: Non Regulated – 49 CFR 173.150(f)
DRUM LABEL: Non Regulated – 49 CFR 173.150(f)
IATA / ICAO: UN1263, Paint Related Material, 3, PG-III)
IMO / IMDG: UN1263, Paint Related Material, 3, PG-III)
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

Section 15, Regulatory Information

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute Health, Fire
All components of this product are on the TSCA list.
SARA Title III Section 313 Supplier Notification
This product contains the indicated <*> toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included in all SDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS	CAS#	EINECS#	WT%	(REG.SECTION)	RQ(LBS)
*Xylenes	1330-20-7	215-535-7	21	(311,312,313,RCRA)	100
*Ethylbenzene	100-41-4 2	02-849-4	6	(311,312,313,RCRA)	1000

Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

15.2 STATE REGULATIONS:
CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains the following chemical known to the State of California to cause cancer: Ethylbenzene

15.3 INTERNATIONAL REGULATIONS
The identified components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS),
Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC),
Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

B3: Combustible Liquid.
D2A: Contains a substance known to cause serious chronic toxicity or death: Ethylbenzene
D2B: Irritating to eyes/skin.
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contain all information required by the CPR.

Section 16, Other Information

16.1 HAZARD RATINGS:
HEALTH (NFPA): 2, HEALTH (HMIS): 2, FLAMMABILITY: 2, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING
See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS REVISION DATE: 05/29/15

Notice:
Butterfield Color, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Prepared By: HS&E Compliance Resources

BUTTERFIELD COLOR®
Engineered Concrete Performance
625 W. Illinois Ave., Aurora IL 60506
Ph.: (630) 906-1980 - Fax: (630) 906-1982
www.butterfieldcolor.com

Safety Data Sheet

Clear Liquid Release

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

Section 1 Identification

PRODUCT IDENTITY:	Clear Liquid Release
PRODUCT USES:	Release Agent
COMPANY IDENTITY:	Butterfield Color®
COMPANY ADDRESS:	625 W Illinois Ave
COMPANY CITY:	Aurora, IL 60506
COMPANY PHONE:	1-630-906-1980
EMERGENCY PHONES:	CHEMTREC: 1-800-424-9300 (USA)
	CANUTEC: 1-613-996-6666 (CANADA)

Section 2, Hazard(s) identification

Danger

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H226	Combustible liquid(North America);Flammable liquid & vapor(Elsewhere).(CAT:3)
H304	May be fatal if swallowed and enters airways.(CAT:1)
H315	Causes skin irritation.(CAT:2)
H320	Causes eye irritation.(CAT:2)
H335	May cause respiratory irritation.(CAT:3)
H336	May cause drowsiness or dizziness.(CAT:3)
H402	Harmful to aquatic life.(CAT:3)

2.2 PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P264	Wash with soap & water thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352	IF ON SKIN: Wash with soap & water.
P304+340	IF INHALED: Remove victim to fresh air & keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do - Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P331	Do NOT induce vomiting.
P332+313	If skin irritation occurs: Get medical advice/attention.

P337+313	If eye irritation persists, get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

Section 3, Composition / Information on Ingredients

MATERIAL	CAS#	EINECS#	WT %
Odorless Mineral Spirits	64742-48-9	265-200-4	60-95
Nonhazardous Nonvolatile	Proprietary	-	0-30

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

Section 4, First Aid Measures

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & DELAYED:
See Section 11 for symptoms/effects, acute & chronic.

4.2 EYE CONTACT:
For eyes, flush with plenty of water for 15 minutes & get medical attention.

4.4 SKIN CONTACT:
In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

4.5 INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

4.6 SWALLOWING:
Rinse mouth. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY.
Do NOT give liquids to an unconscious or convulsing person.

Section 5, Fire Fighting Measures

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
NO open flames, NO sparks, & NO smoking. Above flash point, use a closed system, ventilation, explosion-proof electrical equipment, and lighting.

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
Use dry powder, AFFF, carbon dioxide.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots).

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
COMBUSTIBLE!
Isolate from oxidizers, heat, & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty container very hazardous! Continue all label precautions!

Section 6, Accidental Release Measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, EMERGENCY PROCEDURES:
Keep unprotected personnel away. Ventilate spill area. Remove all ignition sources. Filter respirator for organic vapors.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep from entering storm sewers and ditches which lead to waterways.

6.3 METHODS AND MATERIAL FOR CONTAINMENT & CLEAN-UP:
Stop spill at source. Dike and contain. Absorb remaining liquid in sand or inert absorbent.

Section 7, Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING:
Isolate from oxidizers, heat, sparks, electric equipment & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Avoid prolonged or repeated contact with skin. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Isolate from strong oxidants. Keep container tightly closed & upright when not in use to prevent leakage.

7.3 NONBULK: CONTAINERS:
Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

7.4 PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:
Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, Provincial, or local procedures.

7.5 EMPTY CONTAINER WARNING:
Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.
DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATICELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY BURST AND CAUSE INJURY OR DEATH.

Section 8, Exposure Controls / Personal Protective Equipment

8.1 EXPOSURE LIMITS:

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Odorless Mineral Spirits	64742-48-9	265-200-4	500 ppm	100 ppm
Nonhazardous Nonvolatile	Proprietary	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

8.2 APPROPRIATE ENGINEERING CONTROLS:

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS

Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxiliary positive pressure Self-Contained Breathing Apparatus.

VENTILATION

LOCAL EXHAUST:	Necessary	MECHANICAL (GENERAL):	Acceptable
SPECIAL:	None	OTHER:	None

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

Section 9, Physical & Chemical Properties

APPEARANCE:	Liquid, Water-White
ODOR:	Mild
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	171° 190° 204°* C/340° 374° 400°* F(*=End Point)
FLASH POINT (TEST METHOD):	52° C / 127° F (TCC)
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class II
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	0.95
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20° C	0.849
VAPOR DENSITY (air=1):	5.2
GRAVITY @ 68/68° F / 20/20° C:	
DENSITY:	0.771
SPECIFIC GRAVITY (Water=1):	0.772
POUNDS/GALLON:	6.432

WATER SOLUBILITY:	Negligible
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	260° C / 500° F
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs./Sq In):	99.0 Vol% / 762.3.0 g/L / 6.3 Lbs./Gal
TOTAL VOC'S (TVOC)*:	99.0 Vol% / 762.3.0 g/L / 6.3 Lbs./Gal
NONEXEMPT VOC'S (CVOC)*:	75.0 Vol% / 659.0 g/L / 5.5 Lbs./Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% / 0.0 g/L / 0.000 Lbs./Gal
NONEXEMPT VOC PRESSURE (mm of Hg @ 20° C):	0.0
VISCOSITY @ 20° C (ASTM D445):	Not Available

* Using CARB (California Air Resources Board Rules).

Section 10, Stability & Reactivity

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions, no hazardous reactions when kept from incompatibles.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
Isolate from oxidizers, heat, & open flame.

10.3 INCOMPATIBLE MATERIALS:
Reacts with strong oxidants, causing fire & explosion hazard.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide, Carbon Dioxide from burning.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

Section 11, Toxicological Information

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Primary irritation to skin, defatting, dermatitis. Primary irritation to eyes, redness, tearing, blurred vision. Liquid can cause eye irritation. Wash thoroughly after handling.

11.12 INHALATION:
Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful.

11.13 SWALLOWING:
ASPIRATION HAZARD! Harmful or fatal if swallowed. Do NOT induce vomiting. If spontaneous vomiting occurs, keep victim's head below the waist to prevent aspiration. Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea. The symptoms of chemical pneumonitis may not show up for a few days.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Pre-existing disorders of any target organs mentioned in this Document can be aggravated by over-exposure by routes of entry to components of this product. Persons with these disorders should avoid use of this product.

11.3 CHRONIC HAZARDS

11.31 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

11.32 TARGET ORGANS: May cause damage to target organs, based on animal data.

11.33 IRRITANCY: Irritating to contaminated tissue.

11.34 SENSITIZATION: No component is known as a sensitizer.

11.35 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.36 EMBRYOTOXICITY: No known reports of embryo toxic effects in humans.

11.37 TERATOGENICITY: No known reports of teratogen effects in humans.

11.38 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A MUTAGEN is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate across generational lines. An EMBRYOTOXIN is a chemical which causes damage to a developing embryo (such as: within the first 8 weeks of pregnancy in humans), but the damage does not propagate across generational lines. A TERATOGEN is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A REPRODUCTIVE TOXIN is any substance which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

No mammalian information is available on this product.

Section 12, Ecological Information

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:
No aquatic environmental information is available on this product. Environmental effects of the substance have not been investigated adequately.

12.4 MOBILITY IN SOIL
This material is a mobile liquid.

12.5 DEGRADABILITY
This product is partially biodegradable.

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

Section 13, Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers and liners may retain some product residues. Vapor from some product residues may create a highly flammable or explosive atmosphere inside the container. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE USED CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY BURST AND CAUSE INJURY OR DEATH.** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.

ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D001

Section 14, Transportation Information

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: NONBULK: Not Regulated
DRUM LABEL: None (Combustible Liquid)
IATA / ICAO: UN1993, (Contains: Petroleum Distillates), 3, PG-III
IMO / IMDG: UN1993, (Contains: Petroleum Distillates), 3, PG-III
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

Section 15, Regulatory Information

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute Health, Fire
All components of this product are on the TSCA list.
This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

15.2 STATE REGULATIONS:
THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS
CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

15.3 INTERNATIONAL REGULATIONS
The identified components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
B3: Combustible Liquid.
D2B: Irritating to eyes/skin.
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contain all information required by the CPR.

Section 16, Other Information

16.1 HAZARD RATINGS:
HEALTH (NFPA): 0, HEALTH (HMIS): 1, FLAMMABILITY: 2, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING
See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS REVISION DATE: 6/17/2015

Notice:
Butterfield Color, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Prepared By: HS&E Compliance Resources

THE CLOROX COMPANY

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

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

THE CLOROX COMPANY

SAFETY DATA SHEET

Issuing Date 14-Oct-2016 **Revision Date** 11-Sep-2019 **Revision Number** 6

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

Product identifier

Product Name **Clorox Commercial Solutions® Clorox® Total 360® Disinfectant Cleaner1**

Other means of identification

Synonyms None

EPA Pesticide registration number 67619-38

Recommended use of the chemical and restrictions on use

Recommended Use Disinfectant

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier The Clorox Company

Supplier Address 1221 Broadway
Oakland
CA
94612
US

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

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

Serious eye damage/eye irritation	Category 2B

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Warning**

Hazard Statements
Causes eye irritation

Physical state Liquid **Odor** No information available

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response
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

Precautionary Statements - Storage
Store in accordance with local regulations

Precautionary Statements - Disposal
None

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
No information available

Other information
No information available

Interactions with Other Chemicals
May react with bleach-containing products or other household cleaners to produce hazardous gases.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Tetrasodium EDTA	64-02-8	1-5	*
Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl,	68391-01-5	0.1-1	*
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	85409-23-0	0.1-1	*

*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 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.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Drink plenty of water.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Causes eye irritation.

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 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.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling
Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
Storage 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 Guidelines 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 Measures Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Recommended use of eyewear protection when using through the Clorox Total 360 Electrostatic Sprayer.

Skin and body protection Protective gloves recommended.

Respiratory protection For prolonged use, use NIOSH approved respiratory protection when using through the Clorox Total 360 Electrostatic Sprayer: N95 respirator. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Liquid		
Odor	No information available	**Color**	No information available
Odor Threshold	No information available		

Property	Values	Remarks Method
pH	11.9	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	>100.9 C	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
Specific Gravity	No data available	None known
Water Solubility	No data available	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	No data available	
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.

Hazardous Polymerization
No information available.

Conditions to avoid
None known based on information supplied.

Incompatible materials
None known based on information supplied

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Vapors may be irritating to eyes, nose, throat, and lungs.
Eye contact	Irritating to eyes.
Skin contact	May cause irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	Inhalation LC50
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides 85409-23-0	-	-	-

Information on toxicological effects

Symptoms No information available.

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.
Target Organ Effects	Eyes.
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

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Tetrasodium EDTA 64-02-8		Bluegill (Lepomis macrochirus)472-500 mg/l hours		

Persistence and Degradability
No information available.

Bioaccumulation
No information available

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods	Dispose of contents/containers in accordance with local regulations.
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

International Inventories

TSCA	Complies
DSL	All components are listed either 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

US 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

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

No information available.

EPA Pesticide Registration No. 67619-38

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.

International Regulations

Canada

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

NFPA	**Health Hazards**	1	**Flammability**	0	**Instability** 0		**Physical and Chemical Hazards** -
HMIS	**Health Hazards**	1	**Flammability**	0	**Physical Hazard**	0	**Personal Protection** X

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 14-Oct-2016
Revision Date 11-Sep-2019
Revision Note No information available

Disclaimer
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End of Safety Data Sheet

THE CLOROX COMPANY

SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** 8-Dec-2020 **Revision Number** 4

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

Product identifier

Product Name Clorox Commercial Solutions® Clorox® Toilet Bowl Cleaner with Bleach1

Other means of identification

EPA Registration Number 67619-16
Document Number US001276

Recommended use of the chemical and restrictions on use

Recommended use Disinfecting toilet bowl cleaner with bleach

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
Clorox Professional Products 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, green **Physical State** Viscous liquid **Odor** Crisp, green, floral, 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.

Unknown Toxicity
0.11% of the mixture consists of ingredient(s) of unknown toxicity.

Other information
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals
Reacts with other household chemicals such as other 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	1 - 5	*
Sodium cocoate	91032-12-1	0.5 - 1.5	*
Sodium hydroxide	1310-73-2	0.1 - 1	*
Myristamine oxide	3332-27-2	0.1 - 1	*
Lauramine oxide	1643-20-5	0.1 - 1	*

* 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 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.

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. Use of gastric lavage or emesis is contraindicated.

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 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 in a location inaccessible to children. Tightly close cap between uses.

Incompatible Products Other toilet bowl cleaners, rust removers, acids, or products containing ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	IDLH: 10 mg/m^3 Ceiling: 2 mg/m^3
Sodium hypochlorite 7681-52-9	None	None	None
Sodium cocoate 91032-12-1	None	None	None
Myristamine oxide 3332-27-2	None	None	None
Lauramine oxide 1643-20-5	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 exposure limits are exceeded or 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

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	Viscous liquid
Appearance	Clear
Color	Green
Odor	Crisp, green, floral, bleach
Odor Threshold	No information available

Property	Values	Remarks/ Method
pH	12.5 - 13.5	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	~1.05	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	~1000 cP	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 other 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
Other toilet bowl cleaners, rust removers, acids, or 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)	-
Sodium hydroxide 1310-73-2	-	1350 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
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life. 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 per 49 CFR 171.4 (c)(1)
IMDG	Not Restricted per IMDG Code 2.10.2.7 Marine Pollutant exemption
IATA	Not Restricted per IATA Special Provision A197 Environmentally Hazardous Substance Exemption

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
Sodium hydroxide 1310-73-2	1000 lb			X

CERCLA
This material, as supplied, contains the following 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
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 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. Causes skin irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes, on skin, or on clothing. For prolonged use, wear gloves. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Use only in well-ventilated areas.

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 hydroxide 1310-73-2	X	X	X	X	

16. OTHER INFORMATION

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date 8-Dec-2020

Revision Note Updated transport.

Reference 1108907/50916001.002

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

The Clorox Company

SAFETY DATA SHEET

1. Identification

Product identifier	Clorox Pine-Sol Multi-Surface Cleaner – All Scents
Other means of identification	None
Recommended use	Cleaner
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	The Clorox Company
Address	1221 Broadway Oakland, CA 94612 United States
Telephone	1-510-271-7000
E-mail	Not available.
Emergency phone number	Medical Emergency: 1-800-446-1014 Transportation Emergency: 1-800-424-9300 (Chemtrec)

2. Hazards Identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Wash hands thoroughly after handling.
Response	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 away from incompatible materials.
Disposal	Dispose of container in accordance with local, regional, national and international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Oxirane, methyl-, polymer with oxirane, mono(2-propylheptyl) ether		166736-08-9	1-5*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments	US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	If breathed in, move person into fresh air.
Skin contact	If on skin, rinse well with water.
Eye contact	If in eyes, IMMEDIATELY rinse with water for 15 minutes. If irritation persists, call a doctor.

Ingestion	IF SWALLOWED - Drink a glassful of water. DO NOT induce vomiting.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation. Provide general supportive measures and treat symptomatically.
Indication of immediate medical attention and special treatment needed	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.
General information	Avoid contact with eyes and skin. KEEP OUT OF REACH OF CHILDREN AND PETS. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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	Prevent entry into waterways, sewer, basements or confined areas. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. 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. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes, skin or clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Keep in original container. Store in a cool, dry, well-ventilated place. Do not reuse containers. Store away from incompatible materials (see Section 10 of the SDS). KEEP OUT OF REACH OF CHILDREN.

8. Exposure Controls/Personal Protection

Occupational exposure limits	This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
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.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields.
Skin protection	
Hand protection	For sensitive skin or prolonged use, wear rubber gloves.
Other	Wear appropriate chemical resistant clothing. As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards	Not applicable.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. 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. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid
Color	Various
Odor	Various
Odor threshold	Not available.
pH	10 - 11
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1
Solubility(ies)	Soluble
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	15 cP

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

11. Toxicological Information

Information on likely routes of exposure	
Inhalation	No adverse effects due to inhalation are expected. Excessive intentional inhalation may cause respiratory tract irritation.
Skin contact	Not expected to be a primary skin irritant.
Eye contact	May cause temporary eye irritation.
Ingestion	May cause stomach distress, nausea or vomiting.

Symptoms related to the physical, chemical and toxicological characteristics	Not available.

Information on toxicological effects

Skin corrosion/irritation	Not expected to be a primary skin irritant.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Not available.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.
Further information	Not available.

12. Ecological Information

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Mobility in general	Not available.
Other adverse effects	Not available.

13. Disposal Considerations

Disposal instructions	Review federal, provincial, and local government requirements prior to disposal. Discard in garbage or recycle product according to local regulations.
Waste from residues / unused products	Not available.
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

General	Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below. Canada: TDG: Not regulated as dangerous goods. US: DOT: Not regulated as dangerous goods. IMDG: Not regulated as dangerous goods. IATA: Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Product is compliant with CPSC regulatory guidelines.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
Food and Drug Administration (FDA)	Not regulated.

US state regulations — See below

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

California Proposition 65

This product is not subject to warning labeling under the California Proposition 65 regulation.

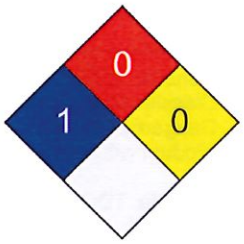
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer

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Issue date 30-Sept-2022

Version # 02

Further information Not available.

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Item: Not available

Prepared by: The Clorox Company, 4900 Johnson Drive, Pleasanton, CA 94588, 925-368-6000

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Safety Data Sheet (SDS)
CLT-350

Non-Regulated Material

SECTION 1: Identification

Product identifier
Product name — CLT-350

Supplier's details
Name — **PrecisionChem LLC**
Address — **W7231 State Road 49**
Waupun, WI 53963
USA

EMERGENCY # — **(800) 535-5053 Infotrac**

SECTION 2: Hazard identification

Classification of the substance or mixture
GHS label elements, including precautionary statements

Hazard statement(s)
H318 — May cause eye irritation

Precautionary statement(s)
P264 — Wash ... 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 (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 — IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

SECTION 3: Composition/information on ingredients

Non-Regulated Materials

SODIUM NITRITE	< 14 %
CAS no 7632000	
SODIUM TOLYTRIAZOLE	< 1 %
CAS no 10102406	
POLYMER/SOLIDS	<5 %
CAS no 0151006-66-5	
SODIUM MOLYBDATE	<3 %
CAS no 7631-95-0	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice — Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled — If breathed in, move person into fresh air. If not breathing, give artificial respiration. consult a physician.
In case of skin contact — Wash off with soap and plenty of water. Consult a physician.
In case of eye contact — Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed — Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

Personal protective equipment for first-aid responders

NIOSH APPROVED RESPIRATOR, RUBBER GLOVES, CHEMICAL SPLASH GOOGLES AND/OR FACE SHIELD

Most important symptoms/effects, acute and delayed
SKIN AND EYE IRRITATION AND/OR DAMAGE

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
ABSORB SPILL WITH PAPER TOWEL OR SIMILAR ABSORBENT AND PLACE IN DRY GARBAGE; OR FLUSH TO SEWER OR GROUND WITH LARGE AMOUNTS OF WATER.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: Exposure controls/personal protection

Individual protection measures, such as personal protective equipment (PPE)

Body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
NIOSH APPROVED RESPIRATOR

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	AMBER COLORED LIQUID
Odor	SLIGHT ODOR
Odor threshold	N/A
pH	8-10
Melting point/freezing point	N/A
Initial boiling point and boiling range	>212 F
Flash point	NON-FLAMMABLE
Evaporation rate	1.0
Flammability (solid, gas)	N/A
Upper/lower flammability limits	N/A
Upper/lower explosive limits	N/A
Vapor pressure	N/A
Vapor density	N/A
Relative density	N/A
Solubility(ies)	COMPLETE
Partition coefficient: n-octanol/water	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Viscosity	N/A
Explosive properties	NONE
Oxidizing properties	N/A

SECTION 10: Stability and reactivity

Reactivity
DO NOT STORE NEAR ACIDS, OXIDIZERS, OR ANY REACTIVE MATERIALS
Chemical stability
STABLE
Incompatible materials
ACIDS, OXIDIZERS OR ANY REACTIVE MATERIALS
Hazardous decomposition products
NONE

SECTION 11: Toxicological information

Information on toxicological effects
Skin corrosion/irritation
May cause skin irritation
Serious eye damage/irritation
May cause eye irritation

SECTION 12: Ecological information

SECTION 13: Disposal considerations

Waste treatment
As per local and federal regulations.

SECTION 14: Transport information

UN Number	None
UN Proper Shipping Name	None
Transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

SECTION 16: Other information

Further information/disclaimer
USER'S RESPONSIBILITY
****

The information and recommendations contained herein cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operations.
****

DISCLAIMER OF LIABILITY
****

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state and local laws and regulations remains the responsibility of the user.

SAFETY DATA SHEET

1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: CLR BRANDS™ – CALCIUM, LIME, RUST
CLR BRANDS™ – CALCIUIM, LIME & RUST REMOVER

Restrictions on Use: Incompatible with strong oxidizing agents, metals (except stainless steel, chrome), acids, bases, and bleach.

Product Use: Aqueous Acidic Cleaner for Removal of Calcium, Lime, and Rust from Hard Surfaces
Retail Package: (14, 26, 28, 42, 80 fluid oz.; 1 gallon)

Manufacturer: Jelmar, LLC

Address: 5550 W. Touhy Ave.
Skokie, IL 60077 USA
1(847) 675-8400

Emergency Phone Number: 1(800) 323-5497 (USA) 8:30 A.M. – 4:30 P.M. CST Monday – Friday

Emergency 24-hour Contact: Chemtrec 1(800) 424-9300

2 – HAZARDS IDENTIFICATION

COMPLIES WITH 29CFR 1900.1200 DATED FEBRUARY 2013

CLASSIFICATION

Skin Irritation, Category 2
Eye Irritation, Category 2A

LABEL ELEMENTS

Signal Word Warning

Hazard statements Causes serious eye irritation.
Causes skin irritation.

Precautionary statement(s)

DO NOT get in eyes, on skin or clothing.
Wear eye protection/face protection.
Wear protective gloves.
Wash skin thoroughly after handling.
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.
If eye irritation persists: Get medical advice.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.

Keep out of reach of children.

Hazard(s) not otherwise classified (HNOC)

DO NOT mix with other household cleaners or chemicals including bleach, as toxic fumes may result.

Unknown Acute Toxicity: Not applicable

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	OSHA HAZARD	% by Weight
1. Lactic Acid	79-33-4	YES	5.00-18.00
2. Lauramine Oxide	1643-20-5	YES	1.50-7.50

The exact percentages (concentration) of mixture have been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4 – FIRST AID MEASURES

FIRST AID MEASURES

EYE CONTACT: In case of eye contact, immediately rinse thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

SKIN CONTACT: In case of skin contact, immediately rinse thoroughly with water for at least 15 minute Remove contaminated clothing and shoes, wash thoroughly before reuse. If irritation persists, get medica attention.

INHALATION: Not a significant route of exposure. Remove to fresh air. If breathing is difficult, GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: If swallowed, DO NOT induce vomiting, drink a glass of water followed with milk. Call POISON CENTER or doctor immediately. NEVER give an unconscious person anything to ingest.

MOST IMPORTANT SYMPTOMS AND EFFECTS: May cause skin irritation and serious eye irritation. Effects may vary depending on length of exposure, solution concentration. Symptoms may include stinging, redness, tearing, and blurred vision of the eyes. Prolonged skin contact may cause redness, discomfort and itching. Accidental ingestion may result in oral burns, vomiting and gastrointestinal disturbance.

NOTES TO PHYSICIAN: Provide general supportive measures and treat symptomatically. Provide SDS to physician. Symptoms may be delayed.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Not flammable. Use appropriate media for area. Use water spray, dry chemical, alcohol-resistant foam or carbon dioxide.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet, as this will spread the fire.

HAZARDOUS COMBUSTION PRODUCTS: Carbon Monoxide. Thermal decomposition can lead to irritating gases and vapors.

FIRE FIGHTING METHODS: Evacuate area of personnel. Wear protective NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use

water spray to cool fire-exposed containers. Run-off of large quantities of product from fire control may cause pollution. Contact appropriate agencies.

FIRE AND EXPLOSION HAZARDS: None known.

SECTION 6 – ACCIDENTAL RELEASES MEASURES

PERSONAL PRECAUTIONS: Avoid contact with skin and eyes. Ensure adequate ventilation. Avoid breathing vapors or mist. Use personal protective equipment, see Section 8. Isolate area and deny entry to unnecessary and unprotected personnel.

METHODS FOR CONTAINMENT AND CLEAN UP:

Small Spill: No special clean-up procedure is necessary for small (less than 1 gallon) spills. Flush spill area with water. Area may be slippery. Wear rubber gloves.

Large Spill: Dam spill, and absorb with earth, sand or similar material. Place in non-leaking containers. Flush residue with large amount of water. Area may be slippery. Dispose of collected material according to local, state, and federal regulations. Avoid direct discharge to sewers and surface waters.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Avoid contact with eyes, skin, or clothing. Use appropriate personal protective equipment (see Section 8). Use with adequate ventilation. Avoid breathing vapors or mist. Observe good industrial hygiene practices when handling this material. Do not eat, drink, or smoke in work area. Wash hands thoroughly after use. Avoid exposure to excess heat. **DO NOT MIX WITH OTHER HOUSEHOLD CLEANERS OR CHEMICALS INCLUDING BLEACH, AS TOXIC FUMES MAY RESULT.** Keep out of reach of children.

STORAGE: Store in cool, well-ventilated area, away from heat. Prevent from freezing. Keep containers tightly closed. Avoid contact with combustible materials, wood, and organic materials. Store in original containers in a secure area away from children and pets.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:	OSHA		ACGIH	
COMPONENT	**PEL**	**STEL/C**	**TWA**	**STEL/C**
1. Lactic Acid	N.E.	N.E.	N.E.	N.E.
2. Lauramine Oxide	N.E.	N.E.	N.E.	N.E.

ENGINEERING CONTROLS: Use with adequate ventilation. Do not use in closed or confined spaces. Avoid prolonged breathing of vapor or mists of this product. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If occupational exposure limits have not been established, maintain airborne levels to an acceptable level.

RESPIRATORY PROTECTION: None required during normal household use. In an industrial setting, respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If vapor or mist is present, wear NIOSH-Approved respirator for vapors and mists, NIOSH-Approved self-contained breathing apparatus, NIOSH-Approved full-face piece positive-pressure, air-supplied respirator. DO NOT exceed limits established by respirator manufacturer. Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of product.

EYE PROTECTION: None required during normal household use. Wear safety glasses/goggles if potential for splashing exists. Industrial users wear safety goggles. Do not wear contact lenses. Emergency responders should wear full eye and face protection.

SKIN PROTECTION: Rubber gloves with protective cuff. Emergency responders should wear impermeable gloves.

OTHER PROTECTION: Emergency responders should wear chemical type (impermeable) protective clothing and footwear where direct contact with chemicals in this product is possible.

WORK/HYGIENIC PRACTICES: Wash hands thoroughly after use or handling. Routinely wash work clothing and protective equipment to remove contaminants. Use good industrial hygiene practices when handling this product.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Crystal clear, lime green liquid
Odor: Slightly acidic

Odor Threshold:	N.D.	**Flammability:**	Not Flammable
pH: @20°C	2.10-2.30	**Upper/Lower Flammability**	N.A.
Melting Point:	N.D.	**Vapor Pressure:**	N.D.
Freezing Point:	N.D.	**Vapor Density (mm Hg):**	N.D.
Boiling Point:	99°C / 210°F	**Relative Density @20°C:**	1.040 – 1.060
Boiling Point Range:	N.A.	**Solubility in water:**	100%
Flash Point:	None	**Partition Coefficient; n-octanol/water**	N.D.
Evaporation Rate:	N.D.	**Auto Ignition Temperature:**	N.A.
		Decomposition Temperature:	N.A.
		Viscosity:	N.D.

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY: No hazardous reactions if stored and handled as prescribed/indicated.

CHEMICAL STABILITY: Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Avoid elevated temperatures. **DO NOT MIX WITH OTHER HOUSEHOLD CLEANERS OR CHEMICALS INCLUDING BLEACH, AS TOXIC FUMES MAY RESULT.**

INCOMPATIBLE MATERIALS: Strong oxidizing agents, metals (except stainless steel and chrome), bleach, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of irritating gases, vapors and carbon oxides. In the event of fire: see Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure:	Eyes, Skin, Inhalation, Ingestion.
Eyes:	Irritant: Avoid eye contact. Effects may vary depending on length of exposure, and/or solution concentration.
Skin:	Irritant: Avoid prolonged skin contact. Effects may vary depending on length of exposure and/or solution concentration.
Inhalation:	No adverse effects expected under typical use conditions.

Ingestion: No adverse effects expected under typical use conditions. Accidental ingestion may result in oral burns, vomiting, and gastrointestinal disturbance.

Symptoms: May cause serious eye irritation. Effects may vary depending on length of exposure and/or solution concentration. Symptoms may include stinging, redness, tearing, and blurred vision of the eyes. May cause skin irritation. Symptoms may include redness, discomfort and itching. Accidental ingestion may result in oral burns, vomiting and gastrointestinal disturbance.

Information on Toxicological Effects:

Numerical Measures of Toxicity:

Constituent	Oral LD50	Dermal LD50	Inhalation LC50
Lactic Acid	3,543 mg/kg (rat)	> 2,000 mg/kg (rabbit)	>7.94 mg/L (rat, 4h, aerosol)
Lauramine Oxide	1,064 mg/kg (rat)	> 2,000 mg/kg (rat)	No data
Product Acute Toxicity Estimate	**>5,000 mg/kg**	**>5,000 mg/kg**	**Not assessed**

Eye Irritation: GHS Category 2A – Irritant.

Skin Irritation: GHS Category 2 – Skin Irritation.

Skin Sensitization: Product is not classified based on available data.

Respiratory Sensitization: Product is not classified based on available data.

Carcinogenicity: This product does not contain any substances at greater than 0.1% (w/w) that are considered carcinogenic by the National Toxicology Program (NTP) Report on Carcinogens and have not been found to be potential carcinogens in the International Agency for Research on Cancer (IARC) Monographs or found to be potential carcinogens by OSHA.

Mutagenicity: Product is not classified based on available data.

Reproductive Toxicity: Product is not classified based on available data.

Specific Target Organ Toxicity – Single Exposure: Product is not classified based on available data.

Specific Target Organ Toxicity – Repeated Exposure: Product is not classified based on available data.

Aspiration Hazard: Product is not classified based on available data.

SECTION 12- ECOLOGICAL INFORMATION

Ecotoxicity:

Constituent	Organism and Species	Results
Lactic Acid	Fish (*Oncorhynchus mykiss*)	96h LC50: 130 mg/L
	Crustacea (*Daphnia magna*)	48h EC50: 130 mg/L
	Algae (*Pseudokirchnerella subcapitata*)	72h EC50: 3.5 g/L (growth rate)
	Microorganisms (Activated Sludge)	3h EC50: >88.2 mg/L
Lauramine Oxide	Fish (*Danio rerio*)	96h LC50: 31.8 mg/L
	Fish (*Pimephales promelas)*	120d LC50: 0.87 mg/L
	Crustacea (*Daphnia magna*)	48h EC50: 3.9 mg/L
	Crustacea (*Daphnia magna*)	21d LC50: 0.96 mg/L

Constituent	Organism and Species	Results
	Algae (*Pseudokirchnerella subcapitata*)	72h EC50: 0.20 mg/L
	Microorganisms (*Pseudomonas putida*)	18h EC10: 24 mg/L

Persistence / Degradability:

Constituent	Results
Lactic Acid	Readily biodegradable: 75% (OECD 301B)
Lauramine Oxide	Readily biodegradable: 95.3% (OECD 301B)

Bioaccumulative Potential:

Constituent	Log Pow	Bioconcentration Factor (BCF)
Lactic Acid	-0.54	No data
Lauramine Oxide	1.85 @ 20 °C	No data

Mobility in soil: No information available.

PBT and vPvB assessment: Not considered to be PBT or vPvB

Other Adverse Effects: No information available.

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Rinse empty containers and recycle. For Industrial use, dispose of unused produc in a permitted hazardous waste management facility following all local, state, and federal regulations.

Follow label warnings, since containers may retain some residue of the product. Processing, use or contamination of this product may change the waste management options. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. State and local disposal regulations may differ from federal disposal regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT (Department of Transportation) (Land Transport): Not regulated

Hazard Class/Label: N.A.

Packaging Group: N.A.

UN Number: N.A.

Proper Shipping Name: N.A.

IMDG (Marine Transport): Not regulated

Hazard Class/Label: N.A.

Packaging Group: N.A.

UN Number: N.A.

Proper Shipping Name: N.A.

Marine Pollutant: No

IATA (Air Transport): Not regulated

Hazard Class/Label: N.A.
Packaging Group: N.A.
UN Number: N.A.
Proper Shipping Name: N.A.

SECTION 15 – REGULATORY INFORMATION

FEDERAL REGULATIONS:

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA TITTLE III SECTION 311/312 CATEGORY:

IMMEDIATE (ACUTE) HEALTH HAZARARD:	YES
DELAYED (CHRONIC) HEALTH HAZARD:	NO
FIRE HAZARD:	NO
SUDDEN RELEASE OF PRESSURE:	NO
REACTIVE HAZARD:	NO

SARA SECTIONS 302/304/313/HAP: NO

INTERNATIONAL CHEMICAL INVENTORY STATUS:

EUROPEAN UNION (EINECS)	YES
JAPAN (METI)	YES
AUSTRALIA (ACIS)	YES
KOREA (KECL)	YES
CANADA (DSL)	YES
CANADA (NDSL)	NO
PHILIPPINES	YES

STATES RIGHT TO KNOW: California, New Jersey, Pennsylvania, Minnesota, Massachusetts, and Wisconsin. Complies with listed States Right to Know Acts.

The following statement is made in order to comply with the California State Drinking Water Act. California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and/or to cause birth defects and other reproductive harm.

SECTION 16 – OTHER INFORMATION

Date of Revision: 20-September-2023

Section 1: Minor change in product name. Minor editorial and formatting changes.

Total VOC (wt. %): 0% - does not include any CARB applicable exemptions (Volatile Organic Compounds)/California Air Resources board

CLR BRANDS™ - CALCIUM, LIME, RUST / CALCIUM, LIME & RUST REMOVER Chemical Fate Information: 28-day biodegradation. The matter is readily biodegradable. OECD 301D

SDS ABBREVIATIONS:

ACGIH:	American Conference of Governmental Industrial Hygienists
C:	Ceiling Limit
EC50:	Effective Concentration to 50% of a test population
HAP:	Hazardous Air Pollutant

IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods
LC50:	Lethal Concentration to 50% of a test population
LD50:	Lethal Dose to 50% of a test population
N. A.:	Not Applicable
N. D.:	Not Determined
N.E.:	Not Established
NIOSH:	National Institute for Occupational Safety & Health
OECD:	Organisation for Economic Cooperation and Development
PBT:	Persistent, Bioaccumulative and Toxic
PEL:	Permissible Exposure Limits
STEL:	Short-Term Exposure Limit
TSCA:	Toxic Substances Control Act
TWA:	Time-Weighted Average
UN:	United Nations
vPvB:	Very Persistent and Very Bioaccumulative
VOC:	Volatile Organic Compound

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, JELMAR offers no representations as to the completeness or accuracy thereof. Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will JELMAR be responsible for damages of any nature whatsoever resulting from use of or reliance upon said information.

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Cold Patch Asphalt

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 06/09/2015 Date of Issue: 06/09/2015 Supersedes Date: 03/01/2014 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Cold Patch Asphalt

Synonyms: **Lafarge** Cold Patch Asphalt (Cold Patch Asphalt), Hot Mix Cold Lay Asphalt, Cold Asphalt Paving Material, Cold Mix Asphaltic Concrete, Cold Mix Asphalt.

1.2. Intended Use of the Product

Cold patch asphalt is used for repairing asphalt pavement, driveways, parking lots, and other surface, base, or sub-base pavement applications.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Lafarge North America Inc.
8700 West Bryn Mawr Avenue, Suite 300
Chicago, IL 60631
Information: 773-372-1000 (9am to 5pm CST)
email: SDSinfo@Lafarge.com
Website: www.lafarge-na.com

1.4. Emergency Telephone Number

Emergency Number : 1-800-451-8346 (3E Hotline)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2	H315
Carc. 1A	H350
STOT RE 1	H372
Aquatic Chronic 3	H412

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS07 GHS08

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H315 - Causes skin irritation.
H350 - May cause cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P302+P352 - If on skin: Wash with plenty of water.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362 - Take off contaminated clothing and wash it before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

Dust may cause mechanical irritation to eyes, nose, throat, and lungs. Direct contact may result in corneal injury. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) can be aggravated by exposure. At elevated temperatures, this product will cause thermal burns and may release toxic hydrogen sulfide (H_2S). Hydrogen sulfide is a fatal and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Explosion can occur if hydrogen sulfide is allowed to accumulate in the headspace of closed systems in the presence of an ignition source.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Limestone	(CAS No) 1317-65-3	90 - 95	Not classified
Asphalt	(CAS No) 8052-42-4	<0.1, 0.1 - 1, 1 - 5, 5 - 10	Carc. 2, H351
Quartz	(CAS No) 14808-60-7	<0.1, 0.1- 1, 1 - 5	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Kerosine, petroleum	(CAS No) 8008-20-6	<0.1, 0.1- 1, 1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Fuel oil No. 2	(CAS No) 68476-30-2	<0.1, 0.1- 1, 1 - 5	Flam. Liq. 3, H226 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 3, H402 Aquatic Chronic 2, H411

More than one of the ranges of concentration prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Keep at rest and in a position comfortable for breathing. If you feel unwell, seek medical advice.

Skin Contact: Seek medical attention for thermal burns. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. For hot product: Cool skin rapidly with cold water after contact with molten product. Molten material requires medical assistance for removal.

Eye Contact: Do not rub. Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for abrasions. For hot product: immediately seek medical attention. Removal of solidified molten material from t eyes requires medical assistance.

Ingestion: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Emissions from asphalt are suspected of causing cancer. Dust may cause immediate or delayed irritation to eyes, skin and respiratory tract. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. This product if heated, may release asphalt fumes that may cause irritation to the throat, nose and skin irritation. If inhaled, the fumes may cause nausea, headache, or dizziness. Prolonged and repeated contact with cold asphalt may cause dermatitis and other skin problems, while contact with hot product will cause thermal burns. If ingested, the product may cause internal organ irritation and may cause possible nausea, vomiting, and diarrhea.

Inhalation: Exposure to fumes, vapors, or dust may cause irritation of the nose, throat, and respiratory system. Breathing dust may cause irritation and silicosis. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

Skin Contact: May cause skin irritation. Dust may cause dry skin, discomfort, irritation and dermatitis. Hot product will cause severe burns.

Eye Contact: Eye contact to airborne dust may cause immediate or delayed irritation or inflammation. Hot product will cause severe burns. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Ingestion: Do not ingest. Ingestion of small quantities is not known to be harmful; ingesting large quantities can cause intestinal distress.

Chronic Symptoms: Emissions from asphalt are suspected of causing cancer. If dust is generated, repeated exposure through inhalation may cause cancer or lung disease. Prolonged or repeated exposure may damage the thymus, liver, and bone marrow. Repeated or prolonged skin contact may cause dermatitis. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin, and other organs.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of water on product above 100 °C (212 °F) can cause product to expand with explosive force..

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible. May release flammable gases.

Explosion Hazard: Product is not explosive. However, thermal decomposition may generate fumes that are flammable or explosive (hydrogen sulfide). Hydrogen sulfide is a fatal and highly flammable gas. Explosion can occur if allowed to accumulate in the headspace of storage tanks, and in the presence of an ignition source.

Reactivity: May release poisonous hydrogen sulfide.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2). Hydrocarbons. Hydrogen sulfide. Sulfur oxides or sulfuric acid. Irritating and toxic fumes/gases.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust. Avoid all contact with skin, eyes, or clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Place spilled material into a container. Avoid actions that cause dust to become airborne. Avoid inhalation of dust. Wear appropriate protective equipment as described in Section 8. Do not wash product down sewage and drainage systems or into bodies of water (e.g. streams).

Methods for Cleaning Up: Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8. For hot product: Where possible allow molten material to solidify naturally.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas. Hydrogen sulfide is a toxic gas that can be fatal. Exercise caution and ensure adequate ventilation. Use all appropriate measures of dust control or suppression, and Personal Protective Equipment (PPE) described in Section 8.

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Nitrates. Chlorates. Peroxides.

7.3. Specific End Use(s)

Cold patch asphalt is used for repairing asphalt pavement, driveways, parking lots, and other surface, base, or sub-base pavement applications.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Limestone (1317-65-3)		
Mexico	OEL TWA (mg/m^3)	10 mg/m^3
Mexico	OEL STEL (mg/m^3)	20 mg/m^3
USA OSHA	OSHA PEL (TWA) (mg/m^3)	15 mg/m^3 (total dust) 5 mg/m^3 (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m^3)	10 mg/m^3 (total dust) 5 mg/m^3 (respirable dust)

Alberta	OEL TWA (mg/m^3)	10 mg/m^3
British Columbia	OEL STEL (mg/m^3)	20 mg/m^3 (total dust)
British Columbia	OEL TWA (mg/m^3)	10 mg/m^3 (total dust) 3 mg/m^3 (respirable fraction)
New Brunswick	OEL TWA (mg/m^3)	10 mg/m^3 (particulate matter containing no Asbestos and <1% Crystalline silica)
Nunavut	OEL TWA (mg/m^3)	5 mg/m^3 (respirable mass) 10 mg/m^3 (total mass)
Northwest Territories	OEL TWA (mg/m^3)	5 mg/m^3 (respirable mass) 10 mg/m^3 (total mass)
Québec	VEMP (mg/m^3)	10 mg/m^3 (Limestone, containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m^3)	20 mg/m^3
Saskatchewan	OEL TWA (mg/m^3)	10 mg/m^3
Yukon	OEL STEL (mg/m^3)	20 mg/m^3
Yukon	OEL TWA (mg/m^3)	30 mppcf 10 mg/m^3

Asphalt (8052-42-4)		
Mexico	OEL TWA (mg/m^3)	5 mg/m^3
Mexico	OEL STEL (mg/m^3)	10 mg/m^3
USA ACGIH	ACGIH TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen fume, coal tar-free
USA NIOSH	NIOSH REL (ceiling) (mg/m^3)	5 mg/m^3 (fume)
Alberta	OEL TWA (mg/m^3)	5 mg/m^3 (Petroleum; Bitumen-fume)
British Columbia	OEL TWA (mg/m^3)	0.5 mg/m^3 (inhalable fume)
Manitoba	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable fraction)
New Brunswick	OEL TWA (mg/m^3)	5 mg/m^3 (petroleum fumes)
Newfoundland & Labrador	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable fraction)
Nova Scotia	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable fraction)
Nunavut	OEL STEL (mg/m^3)	10 mg/m^3 (Petroleum fumes)
Nunavut	OEL TWA (mg/m^3)	5 mg/m^3 (Petroleum fumes)
Northwest Territories	OEL STEL (mg/m^3)	10 mg/m^3 (Petroleum fumes)
Northwest Territories	OEL TWA (mg/m^3)	5 mg/m^3 (Petroleum fumes)
Ontario	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable)
Prince Edward Island	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume, inhalable fraction)
Québec	VEMP (mg/m^3)	5 mg/m^3 (fume)
Saskatchewan	OEL STEL (mg/m^3)	1.5 mg/m^3 (fumes-inhalable fraction)
Saskatchewan	OEL TWA (mg/m^3)	0.5 mg/m^3 (fume and inhalable fraction)
Yukon	OEL STEL (mg/m^3)	10 mg/m^3 (fume)
Yukon	OEL TWA (mg/m^3)	5 mg/m^3 (fume)

Particulates not otherwise classified (PNOC) (RR-00072-6)		
USA ACGIH	ACGIH TWA (mg/m^3)	3 mg/m^3 Respirable fraction 10 mg/m^3 Total Dust
USA OSHA	OSHA PEL (TWA) (mg/m^3)	5 mg/m^3 Respirable fraction 15 mg/m^3 Total Dust
Alberta	OEL TWA (mg/m^3)	10 mg/m^3 (total) 3 mg/m^3 (respirable)
British Columbia	OEL TWA (mg/m^3)	10 mg/m^3 (total dust) 3 mg/m^3 (respirable fraction)
Manitoba	OEL TWA (mg/m^3)	10 mg/m^3 (inhalable particles, recommended) 3 mg/m^3 (respirable particles, recommended)
New Brunswick	OEL TWA (mg/m^3)	3 mg/m^3 (particulate matter containing no Asbestos and

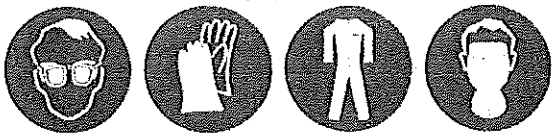
		<1% Crystalline silica, respirable fraction) 10 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Nunavut	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	10 mg/m³ (inhalable) 3 mg/m³ (respirable)
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Québec	VEMP (mg/m³)	10 mg/m³ (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (insoluble or poorly soluble-inhalable fraction) 6 mg/m³ (insoluble or poorly soluble-respirable fraction)
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (insoluble or poorly soluble-inhalable fraction) 3 mg/m³ (insoluble or poorly soluble-respirable fraction)
Fuel oil No. 2 (68476-30-2)		
USA ACGIH	ACGIH TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route,Confirmed Animal Carcinogen with Unknown Relevance to Humans
Alberta	OEL TWA (mg/m³)	100 mg/m³
British Columbia	OEL TWA (mg/m³)	100 mg/m³ (aerosol, inhalable, and vapour)
Manitoba	OEL TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
Newfoundland & Labrador	OEL TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
Nova Scotia	OEL TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
Ontario	OEL TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
Prince Edward Island	OEL TWA (mg/m³)	100 mg/m³ (inhalable fraction and vapor)
Saskatchewan	OEL STEL (mg/m³)	150 mg/m³ (vapour)
Saskatchewan	OEL TWA (mg/m³)	100 mg/m³ (vapour)
Kerosine, petroleum (8008-20-6)		
USA ACGIH	ACGIH TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total hydrocarbon vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route,Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA NIOSH	NIOSH REL (TWA) (mg/m³)	100 mg/m³
Alberta	OEL TWA (mg/m³)	200 mg/m³
British Columbia	OEL TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures)
Manitoba	OEL TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)
Newfoundland & Labrador	OEL TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon

		vapor)
Nova Scotia	OEL TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)
Ontario	OEL TWA (mg/m³)	200 mg/m³ (restricted to conditions where there is negligible aerosol exposure)
Prince Edward Island	OEL TWA (mg/m³)	200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)
Saskatchewan	OEL STEL (mg/m³)	250 mg/m³
Saskatchewan	OEL TWA (mg/m³)	200 mg/m³
Quartz (14808-60-7)		
Mexico	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO_2+5, 10mg/m³/%SiO_2+2
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable)
Manitoba	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
New Brunswick	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass) 0.3 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass) 0.3 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	0.10 mg/m³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Québec	VEMP (mg/m³)	0.1 mg/m³ (respirable dust)
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
Yukon	OEL TWA (mg/m³)	300 particle/mL

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Suitable materials with adequate protection.

Hand Protection: Wear gloves in situations where abrasions may occur.

Eye Protection: Chemical goggles or safety glasses. Wearing contact lenses under dusty conditions is not recommended.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust/fumes above exposure limits.

Thermal Hazard Protection: If material is hot, wear thermally resistant protective gloves and clothing. Protect skin and eyes from contact with molten material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	Black granular solid
Odor	:	Slight petroleum odor
Odor Threshold	:	Not available
pH	:	Not available
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	Not available
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	Not available
Solubility	:	Water: Insoluble in water
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: May release poisonous hydrogen sulfide.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Open flame. Sources of ignition. Extremely high or low temperatures. Incompatible materials.

10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers. Nitrates. Chlorates. Peroxides.

10.6. Hazardous Decomposition Products: Thermal decomposition generates: Carbon oxides (CO, CO_2). Hydrocarbons. Hydrogen sulfide. Sulfur oxides or sulfuric acid. Irritating and toxic fumes/gases.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Exposure to fumes, vapors, or dust may cause irritation of the nose, throat, and respiratory system. Breathing dust may cause irritation and silicosis. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

Symptoms/Injuries After Skin Contact: May cause skin irritation. Dust may cause dry skin, discomfort, irritation and dermatitis. Hot product will cause severe burns.

Symptoms/Injuries After Eye Contact: Eye contact to airborne dust may cause immediate or delayed irritation or inflammation. Hot product will cause severe burns. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Symptoms/Injuries After Ingestion: Do not ingest. Ingestion of small quantities is not known to be harmful; ingesting large quantities can cause intestinal distress.

Chronic Symptoms: Emissions from asphalt are suspected of causing cancer. If dust is generated, repeated exposure through inhalation may cause cancer or lung disease. Prolonged or repeated exposure may damage the thymus, liver, and bone marrow. Repeated or prolonged skin contact may cause dermatitis. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin, and other organs.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Asphalt (8052-42-4)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 94.4 mg/m³
Fuel oil No. 2 (68476-30-2)	
LD50 Oral Rat	12 g/kg
LD50 Dermal Rabbit	4720 µl/kg
LC50 Inhalation Rat	4.6 mg/l/4h
Kerosine, petroleum (8008-20-6)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 5.28 mg/l/4h
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg

Asphalt (8052-42-4)	
IARC Group	2B
National Toxicology Program (NTP) Status	Twelfth Report - Items under consideration.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Fuel oil No. 2 (68476-30-2)	
LC50 Fish 1	35 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

Kerosine, petroleum (8008-20-6)	
LC50 Fish 1	2 - 5 mg/kg (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
NOEC chronic fish	0.098 mg/l (PETROTOX, Klimmish score: 2)

12.2. Persistence and Degradability Not available

12.3. Bioaccumulative Potential

Asphalt (8052-42-4)	
BCF Fish 1	(no bioaccumulation expected)
Log Pow	> 6

12.4. Mobility in Soil Not available

12.5. Other Adverse Effects Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

Additional Information: Where possible, recycling of used and unused uncontaminated substance is recommended.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Cold Patch Asphalt	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Limestone (1317-65-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Asphalt (8052-42-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard

Fuel oil No. 2 (68476-30-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Kerosine, petroleum (8008-20-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

15.2. US State Regulations

Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Limestone (1317-65-3)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Asphalt (8052-42-4)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Kerosine, petroleum (8008-20-6)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Quartz (14808-60-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Cold Patch Asphalt	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Limestone (1317-65-3)	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Asphalt (8052-42-4)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Fuel oil No. 2 (68476-30-2)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Kerosine, petroleum (8008-20-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Quartz (14808-60-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 06/09/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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