Hazard Communication Program
Dump Truck Safety Data Sheets

J&S Partnership, LLP

PTS Contractors, Inc.

Introduction

The management of PTS Contractors, Inc. and J&S Partnership, LLP is committed to preventing accidents and ensuring the safety and health of our employees. We will comply with all applicable federal and state health and safety rules. Under this program employees are informed of the contents of the OSHA Hazard Communications Standard, the hazardous properties of chemicals with which they work, safe handling procedures and measures to take to protect themselves from these chemicals. These chemicals may be physical or health-related. This written hazard communication plan is available at the following locations for review by all employees:

- SHOP Binder (Right to Know station in shop)
- Office Binder (kept in kitchen/foremen meeting room)

Each foreman will have copies of this documentation on their jobsite. Currently those foremen are:

- Shawn Kilgore
- Jeff Joski
- Darrell Vanden Bush
- Jason Schleis
- McKenzie Denis

The information can also be found online at http://www.ptswis.com.

This particular binder contains safety data sheets for all chemicals typically found in a J&S truck.

Identifying Hazardous Chemicals

A list is attached to this plan that identifies all hazardous chemicals with a potential for employee exposure at this workplace. Detailed information about the physical, health, and other hazards of each chemical is included in a Safety Data Sheet (SDS); the product identifier for each chemical on the list matches and can be easily cross-referenced with the product identifier on its label and on its Safety Data Sheet.

Identifying Containers of Hazardous Chemicals

The labeling system to be used by PTS Contractors, Inc and J&S Partnership, LLP will follow the requirements in the 2012 revision of the OSHA Hazard Communication Standard to be consistent with the United Nations Globally Harmonized System (GHS) of Classification of Labeling of Chemicals. The label on the chemical is intended to convey information about the hazards posed by the chemical through standardized label elements, including symbols, signal words and hazard statements.

All hazardous chemical containers used at this workplace will have:

- The original manufacturer's label that includes a product identifier, an appropriate signal word, hazard statement(s), pictogram(s), precautionary statement(s) and the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party
- A label with the appropriate label elements just described
- Workplace labeling that includes the product identifier and words, pictures, symbols, or combination that provides at least general information regarding the hazards of the chemicals.

Keeping Safety Data Sheets (previously known as Material Safety Data Sheets)

The manufacturer or importer of a chemical is required by OSHA to develop a Safety Data Sheet (SDS) that contains specific, detailed information about the chemical's hazard using a specified format. The distributor or supplier of the chemical is required to provide this SDS to the purchaser.

SDS's are readily available to all employees during their work shifts. Employees can review SDS for all hazardous chemicals used at this workplace. If you would like an electronic copy, someone in the office can email you a copy or print one for you.

The SDS's are updated and managed by Casey and Jeannie in the office. If a SDS is not immediately available for a hazardous chemical, employees can obtain the required information by calling the office, where someone will obtain the SDS from our supplier or the manufacturer and update the hazard communication book.

Training Employees about Chemical Hazards

Before employees are exposed to new hazardous chemicals, employees must attend a hazard communication training that covers the following topics:

- An overview of the requirements in OSHA's Hazard Communication Standard.
- Hazardous chemicals present in their workplace.
- Any operations in their work area where hazardous chemicals are used.
- The location of the written hazard communication plan and where it may be reviewed.
- How to understand and use the information on labels and in Safety Data Sheets.
- Physical and health hazards of the chemicals in their work areas.
- Methods used to detect the presence or release of hazardous chemicals in the work area.
- Steps we have taken to prevent or reduce exposure to these chemicals.

How employees can protect themselves from exposure to these hazardous chemicals through use of engineering controls/work practices and personal protective equipment.

- An explanation of any special labeling present in the workplace.
- What are pictograms?
- What are the signal words?
- What are the hazard statements?
- What are the precautionary statements?
- Emergency procedures to follow if an employee is exposed to these chemicals.

Prior to introducing a new chemical hazard into any department, each employee in that department will be given information and training as outlined above for the new chemical hazard.

Informing Employees who do Special Tasks

Before employees perform special (non-routine) tasks that may expose them to hazardous chemicals, their supervisors will inform them about the chemicals' hazards. Their supervisors also will inform them about how to control exposure and what to do in an emergency. The employer will evaluate the hazards of these tasks and provide appropriate controls including Personal Protective Equipment all additional training as required.

Informing contractors and other employers about our hazardous chemicals

If employees of other employer(s) may be exposed to hazardous chemicals at our workplace (for example, employees of a construction subcontractor working on-site) It is the responsibility of the job foreman to provide contractors and their employees with the following information:

- The identity of the chemicals, how to review our Safety Data Sheets, and an explanation of the container labeling system.
- Safe work practices to prevent exposure.

HCS Pictograms and Hazards

Health Hazard  • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	**Flame**  • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	**Exclamation Mark**  • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  • Gases Under Pressure	**Corrosion**  • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals	**Exploding Bomb**  • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  • Oxidizers	**Environment** (Non-Mandatory)  • Aquatic Toxicity	**Skull and Crossbones**  • Acute Toxicity (fatal or toxic)

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3491-02 2012

List of Hazardous Chemicals

Common Trade Name	Manufacturer/Supplier Name
Air Brake Antrifreeze & Conditioner	CRC
Brake Cleaner High Power	3M
Diesel Hot Line Treatment	Schaeffer's
Diesel Treat	Schaeffer's
Gear Lube #267-268	Schaeffer's
Glass Cleaner	Castle
Glass Cleaner	Zep's
Grease #229 Ultra Red	Schaeffer's
Hand Cleaner (Citrus)	NAPA
Oil 15W-40 Supreme 7000	Schaeffer's
Parts Cleaner	Castle
Perfect 10	Malco
Starting Fluid	Mac's / NAPA
Thrust Penetrating Oil	Castle
Wheel & Tire Cleaner	Armor All
Windshield Washer Fluid Purple Power	NAPA / Zecol


CRC
Diesel
Air Brake
Anti-Freeze
& Conditioner
• Complete Winter Protection for Air Brake Systems
• Prevents Moisture and Icing
• Prevents Corrosion
DANGER: FLAMMABLE VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
Read warnings on back panel.
Part No. 05632
Net Contents:
32 fl. oz. (946 mL)

SAFETY DATA SHEET

1. Identification

Product identifier	**Air Brake Anti-Freeze & Conditioner**
Other means of identification	
Product code	05528, 05555
Recommended use	Air brake anti-freeze
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)
Website	www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word	Danger
Hazard statement	Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Suspected of damaging fertility or the unborn child. Causes damage to organs (eyes, central nervous system).
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If exposed or concerned: Get medical attention. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methanol		67-56-1	90 - 100

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. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Dizziness. Headache. Nausea, vomiting. Irritation of eyes and mucous membranes. Upper respiratory tract irritation. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. 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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
General fire hazards	Highly flammable liquid and vapor.

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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. 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
Methanol (CAS 67-56-1)	PEL	260 mg/m3 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	325 mg/m3 250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
	TWA	260 mg/m3 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
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

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

US - Minnesota Haz Subs: Skin designation applies

Methanol (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

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

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

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. 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. Use of an impervious apron is recommended.

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 Liquid.

Color Colorless.

Odor Pungent. Alcoholic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -144 °F (-97.8 °C) estimated

Initial boiling point and boiling range 148.5 °F (64.7 °C) estimated

Flash point 54 °F (12.2 °C) Tag Closed Cup

Evaporation rate Fast.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	2.6 % estimated
Flammability limit - upper (%)	36 % estimated
Vapor pressure	133.2 hPa estimated
Vapor density	1.1 (air = 1)
Relative density	0.79
Solubility (water)	Completely soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	725 °F (385 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	99.9 % 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	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Toxic if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Inhalation	Toxic if inhaled.
Skin contact	Toxic in contact with skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Dizziness. Headache. Nausea, vomiting. Irritation of eyes and mucous membranes. Upper respiratory tract irritation. Skin irritation.

Information on toxicological effects

Acute toxicity Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.

Product	Species	Test Results
Air Brake Anti-Freeze & Conditioner		
Acute		
Dermal		
LD50	Rabbit	12816.9443 mg/kg estimated
Inhalation		
LC50	Rat	64084.7188 ppm, 4 hours estimated
		83.981 mg/l, 4 hours estimated
Oral		
LD50	Human	50.0662 mg/kg estimated
	Rat	5627.0654 mg/kg estimated
LDL0	Human	300.3971 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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Causes damage to organs: Eyes. Central nervous system. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be an aspiration hazard.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product		Species	Test Results
Air Brake Anti-Freeze & Conditioner			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	16121.3125 mg/l, 48 hours estimated
Fish	LC50	Fish	22749.9609 mg/l, 96 hours estimated

Components		Species	Test Results
Methanol (CAS 67-56-1)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

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 If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
F003: Waste Non-halogenated Solvent - Spent Non-halogenated Solvent

US RCRA Hazardous Waste U List: Reference

Methanol (CAS 67-56-1)	U154

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	UN1230
UN proper shipping name	Methanol
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP2
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1230
UN proper shipping name	Methanol
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Environmental hazards	No.
ERG Code	3L
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	UN1230
UN proper shipping name	METHANOL
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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

Methanol (CAS 67-56-1)

CERCLA Hazardous Substance List (40 CFR 302.4)

Methanol (CAS 67-56-1)

CERCLA Hazardous Substances: Reportable quantity

Methanol (CAS 67-56-1) 5000 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

Methanol (CAS 67-56-1)

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 - Yes
Pressure Hazard - No
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

Methanol (CAS 67-56-1)

US. Massachusetts RTK - Substance List

Methanol (CAS 67-56-1)

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

Methanol (CAS 67-56-1)

US. Rhode Island RTK

Methanol (CAS 67-56-1)

US. California Proposition 65

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

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

Methanol (CAS 67-56-1) Listed: March 16, 2012

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 100 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products Not regulated

VOC content (CA) 100 %

VOC content (OTC) 100 %

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

Country(s) or region	Inventory name	On inventory (yes/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 03-24-2015

Prepared by Allison Cho

Version # 01

Further information CRC # 620B

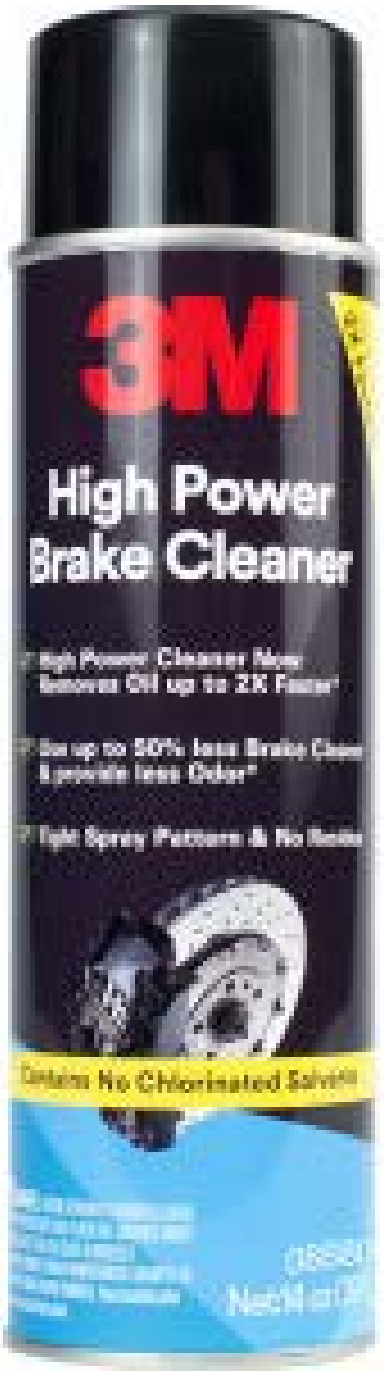
HMIS® ratings
Health: 2*
Flammability: 3
Physical hazard: 0
Personal protection: B

NFPA ratings
Health: 2
Flammability: 3
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.


3M
High Power
Brake Cleaner

Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M (TM) High Power Brake Cleaner, P.N. 08880
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket

ADDRESS: 3M Center, St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 06/11/12
Supercedes Date: 05/06/11

Document Group: 06-5214-9

Product Use:
Intended Use: Automotive
Specific Use: Solvent Blend Cleaner for Automobile Brake Systems

SECTION 2: INGREDIENTS

Ingredient	C.A.S. No.	% by Wt
Hydrotreated Light Naptha (Petroleum)	64742-49-0	30 - 60
Xylene	1330-20-7	10 - 30
Propane	74-98-6	10 - 30
Methyl Alcohol	67-56-1	7 - 13
Ethylbenzene	100-41-4	2 - 8
Toluene	108-88-3	< 0.1

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol
Odor, Color, Grade: clear, colorless, solvent odor
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Extremely flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a

chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which can cause cancer.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:
Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

May be absorbed through skin and cause target organ effects.

Inhalation:
Intentional concentration and inhalation may be harmful or fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Single exposure, above recommended guidelines, may cause:
Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:
May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:
May cause blindness.

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Prolonged or repeated exposure may cause:
Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Ingredient	C.A.S. No.	Class Description	Regulation
Ethylbenzene	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.
Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.
Inhalation: Remove person to fresh air. Get immediate medical attention.
If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

This product contains methanol. Methanol poisoning can cause metabolic acidosis, blindness, and death. Onset of signs or symptoms may be delayed for 18 to 24 hours. If methanol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	*No Data Available*
Flash Point	-50.00 ºF
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Extremely flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

6.2. Environmental precautions
For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods
Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Seal the container.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Do not pierce or burn container, even after use. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Avoid skin contact. Aerosol container contains flammable gas under pressure. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. For industrial or professional use only. Avoid contact with oxidizing agents. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

7.2 STORAGE
Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers. Use in an enclosed process area is recommended. Use with functioning spray booth or local exhaust. Do not use in a confined area or areas with little or no air movement. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.
The following eye protection(s) are recommended: Indirect Vented Goggles
.

8.2.2 Skin Protection
Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.
Gloves made from the following material(s) are recommended: Fluoroelastomer
Polymer laminate
.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray.
Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or full facepiece supplied-air respirator
. Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators.

8.2.4 Prevention of Swallowing
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

Ingredient	Authority	Type	Limit	Additional Information
Alkanes, C1-4	ACGIH	TWA	1000 ppm	
Benzene, 1,3-dimethyl-	ACGIH	TWA	100 ppm	
Benzene, 1,3-dimethyl-	ACGIH	STEL	150 ppm	
Benzene, 1,4-dimethyl-	ACGIH	TWA	100 ppm	
Benzene, 1,4-dimethyl-	ACGIH	STEL	150 ppm	
Ethylbenzene	ACGIH	TWA	20 ppm	
Ethylbenzene	CMRG	TWA	25 ppm	
Ethylbenzene	CMRG	STEL	75 ppm	
Ethylbenzene	OSHA	TWA	435 mg/m3	
Hydrotreated Light Naptha (Petroleum)	CMRG	TWA	50 ppm	
Methyl Alcohol	ACGIH	TWA	200 ppm	Skin Notation*
Methyl Alcohol	ACGIH	STEL	250 ppm	Skin Notation*
Methyl Alcohol	OSHA	TWA	260 mg/m3	
Propane	OSHA	TWA	1800 mg/m3	
Toluene	ACGIH	TWA	20 ppm	
Toluene	CMRG	STEL	75 ppm	Skin Notation*
Toluene	OSHA	TWA	200 ppm	
Toluene	OSHA	CEIL	300 ppm	
Xylene	ACGIH	TWA	100 ppm	
Xylene	ACGIH	STEL	150 ppm	
Xylene	CMRG	TWA	50 ppm	
Xylene	CMRG	STEL	75 ppm	
Xylene	OSHA	TWA	435 mg/m3	

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Aerosol
Odor, Color, Grade:	clear, colorless, solvent odor
General Physical Form:	Liquid
Autoignition temperature	*No Data Available*
Flash Point	-50.00 ºF
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Boiling Point	*No Data Available*
Density	0.699 g/ml
Vapor Density	>=1.0 [*Ref Std:* AIR=1]
Vapor Pressure	40 psi [*Details:* Conditions: @ 70 F]
Specific Gravity	0.699 [*Ref Std:* WATER=1]
pH	*Not Applicable*
Melting point	*No Data Available*
Solubility in Water	Nil
Evaporation rate	*No Data Available*
Hazardous Air Pollutants	34.72 % weight [*Test Method:* Calculated]
Volatile Organic Compounds	699 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	100.0 % weight [*Test Method:* calculated per CARB title 2]
Kow - Oct/Water partition coef	*No Data Available*
Percent volatile	100 %
VOC Less H2O & Exempt Solvents	699 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Viscosity	*No Data Available*

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Heat
Sparks and/or flames

10.2 Materials to avoid
Strong acids
Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.
Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14:TRANSPORT INFORMATION

ID Number(s):
LB-K100-0311-1, 60-4550-3010-0, 60-4550-4502-5, 60-9800-2110-3, 60-9800-3309-0

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:
Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Methyl Alcohol	67-56-1	7 - 13
Ethylbenzene	100-41-4	2 - 8
Xylene	1330-20-7	10 - 30
Xylene (Benzene, 1,2-dimethyl-)	1330-20-7	10 - 30
Xylene (Benzene, 1,3-dimethyl-)	1330-20-7	10 - 30
Xylene (Benzene, 1,4-dimethyl-)	1330-20-7	10 - 30

Xylene (Benzene, dimethyl-)	1330-20-7	10 - 30

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

Ingredient	C.A.S. No.	Classification
Ethylbenzene	100-41-4	**Carcinogen
Toluene	108-88-3	*Female reproductive toxin
Toluene	108-88-3	*Developmental Toxin

* WARNING: contains a chemical or chemicals which can cause birth defects or other reproductive harm.
** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 **Flammability:** 4 **Reactivity:** 0 **Special Hazards:** None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:
Section 1: Product use information was modified.
Section 16: NFPA hazard classification for health was modified.
Section 3: Immediate physical hazard(s) was modified.
Section 3: Potential effects from skin contact information was modified.
Section 3: Potential effects from ingestion information was modified.
Section 5: Unusual fire and explosion hazard information was modified.
Section 7: Handling information was modified.
Section 8: Engineering controls information was modified.
Section 10: Hazardous decomposition or by-products table was modified.
Section 13: Waste disposal method information was modified.
Section 13: EPA hazardous waste number (RCRA) information was modified.
Section 8: Respiratory protection - recommended respirators information was modified.
Section 4: First aid for ingestion (swallowing) - decontamination - was modified.
Section 4: First aid for ingestion (swallowing) - medical assistance - was modified.
Section 3: Immediate other hazard(s) was modified.

Section 3: Other health effects information was modified.
Section 4: Note to physicians was modified.
Section 9: Density information was modified.
Section 9: Vapor density value was modified.
Section 9: Vapor pressure value was modified.
Section 9: Boiling point information was modified.
Section 5: Flammable limits (UE) information was modified.
Section 5: Flammable limits (LEL) information was modified.
Section 5: Autoignition temperature information was modified.
Section 5: Flash point information was modified.
Section 9: Property description for optional properties was modified.
Section 9: Specific gravity information was modified.
Section 9: pH information was modified.
Section 9: Melting point information was modified.
Section 9: Solubility in water text was modified.
Section 9: Flash point information was modified.
Section 9: Flammable limits (LEL) information was modified.
Section 9: Flammable limits (UEL) information was modified.
Section 9: Autoignition temperature information was modified.
Section 2: Ingredient table was modified.
Section 15: EPCRA 313 information was modified.
Section 8: Exposure guidelines ingredient information was modified.
Section 3: Carcinogenicity table was modified.
Section 15: California proposition 65 ingredient information was modified.
Section 6: Personal precautions information was modified.
Section 6: Environmental procedures information was modified.
Section 10: Materials to avoid physical property was modified.
Section 10: Conditions to avoid physical property was modified.
Copyright was modified.

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3M USA MSDSs are available at www.3M.com


Schaeffer's
DIESEL
HOT LINE
Gelled Diesel Fuel
Emergency Treatment
TREATS UP TO 50 GALLONS
CAUTION: COMBUSTIBLE, HARMFUL IF SWALLOWED,
IRRITANT TO SKIN AND EYES. SEE BACK PANEL
ONE U.S. QUART 0.946 LITERS

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

284 Diesel Hot Line

Section 1. Identification

GHS product identifier : 284 Diesel Hot Line

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Diesel fuel additive to dissolve gelled fuel.

Supplier's details : Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May cause drowsiness and dizziness.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Section 2. Hazards identification

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

Response : Collect spillage. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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

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

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Benzene, ethylenated, residues, distn. lights	60 - 100	178535-25-6
Solvent naphtha (petroleum), heavy aromatic	60 - 100	64742-94-5
Isopropyl alcohol	30 - 60	67-63-0
1,3,5-Triethylbenzene	10 - 30	102-25-0
Naphthalene	1 - 5	91-20-3
1,2,4-Trimethylbenzene	1 - 5	95-63-6

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 20 minutes. Get medical attention.

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

Skin contact : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

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

Ingestion : No known significant effects or critical hazards.

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.

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

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet or water-based fire extinguishers.

Section 5. Fire-fighting measures

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

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

Special protective actions for fire-fighters : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required. Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

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

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept

Section 7. Handling and storage

tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Isopropyl alcohol	**ACGIH TLV (United States, 4/2014).** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.
Naphthalene	**ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 52 mg/m³ 8 hours. TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 75 mg/m³ 15 minutes. STEL: 15 ppm 15 minutes. TWA: 50 mg/m³ 10 hours. TWA: 10 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 50 mg/m³ 8 hours. TWA: 10 ppm 8 hours.
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 125 mg/m³ 10 hours. TWA: 25 ppm 10 hours.

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

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Section 8. Exposure controls/personal protection

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

Eye/face protection : Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact.

Skin protection

Hand protection : Use nitrile or oil resistant gloves.

Body protection : Personal protective clothing such as gloves, aprons, boots and complete facial protection should be selected based on the task being performed and the risks involved. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection : If a risk assessment indicates that respiratory protection is required, use a properly fitted, air-purifying or supplied air respirator that complies with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear.]

Color : Pale amber.

Odor : Aromatic.

Odor threshold : Not available.

pH : Not applicable.

Melting point/ Dropping Point : Not available.

Boiling point : 167°C (332.6°F)

Flash point : Closed cup: 14.4°C (57.9°F)

Evaporation rate : 0.93 (Butyl acetate = 1)

Flammability (solid, gas) : Not available.

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

Vapor pressure : 1.6 kPa (12.37 mm Hg) [room temperature]

Vapor density : >1 [Air = 1]

Relative density : 0.855

Solubility : Insoluble in water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Volatility : Not available.

VOC content : 35 to 40 % (w/w)

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 : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : Reactive or incompatible with the following materials: Strong Oxidising Agents.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isopropyl alcohol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Solvent naphtha (petroleum), heavy aromatic	Skin - Mild irritant	Rabbit	-	24 hours 500 µL	-
Isopropyl alcohol	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 0.05 mL	-

Sensitization

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Isopropyl alcohol	None.	3	-	A4	-	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.	A4	-	None.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Isopropyl alcohol	Category 3	Not applicable.	Narcotic effects
1,2,4-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy aromatic	ASPIRATION HAZARD - Category 1

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

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

Ingestion : No known significant effects or critical hazards.

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

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

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	9273.3 mg/kg
Inhalation (vapors)	775.4 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Isopropyl alcohol	Acute LC50 1400000 to 1950000 µg/L Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1400000 µg/L	Fish - Gambusia affinis	96 hours
Naphthalene	Acute EC50 1600 µg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2350 µg/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/L Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
	Chronic NOEC 0.67 ppm Fresh water	Fish - Oncorhynchus kisutch	40 days
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/L Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours
	Acute LC50 22.4 mg/L Fresh water	Fish - Tilapia zillii	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Benzene, ethylenated, residues, distn. lights	3.43 to 6.5	-	high
Solvent naphtha (petroleum), heavy aromatic	2.8 to 6.5	99 to 5780	high
Isopropyl alcohol	0.05	-	low
Naphthalene	3.4	36.5 to 168	low
1,2,4-Trimethylbenzene	3.63	243	low

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Naphthalene	91-20-3	Listed	U165

Section 14. Transport information

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (Isopropyl alcohol, 1,3, 5-Triethylbenzene). Marine pollutant (Benzene, ethylenated, residues, distn. lights, 1,3,5-Triethylbenzene) RQ (Naphthalene)	FLAMMABLE LIQUIDS, N.O.S. (Isopropyl alcohol, 1,3, 5-Triethylbenzene). Marine pollutant (Benzene, ethylenated, residues, distn. lights, 1,2,4-Trimethylbenzene)	FLAMMABLE LIQUIDS, N.O.S. (Isopropyl alcohol, 1,3,5-Triethylbenzene)
Transport hazard class(es)	3 	3 	3 
Packing group	II	II	II
Environmental hazards	No.	Yes.	No.
Additional information	The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes. **Reportable quantity** 2004 lbs / 909.82 kg [281.11 gal / 1064.1 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

AERG : 128

DOT-RQ Details : Naphthalene 100 lbs / 45.4 kg

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) PAIR**: Naphthalene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Naphthalene
Clean Water Act (CWA) 311: Naphthalene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : 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

Section 15. Regulatory information

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

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Benzene, ethylenated, residues, distn. lights	60 - 100	No.	No.	No.	Yes.	No.
Isopropyl alcohol	30 - 60	Yes.	No.	No.	Yes.	No.
1,3,5-Triethylbenzene	10 - 30	Yes.	No.	No.	Yes.	No.
Naphthalene	1 - 5	Yes.	No.	No.	Yes.	Yes.
1,2,4-Trimethylbenzene	1 - 5	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isopropyl alcohol Naphthalene 1,2,4-Trimethylbenzene	67-63-0 91-20-3 95-63-6	30 - 60 1 - 5 1 - 5
Supplier notification	Isopropyl alcohol Naphthalene 1,2,4-Trimethylbenzene	67-63-0 91-20-3 95-63-6	30 - 60 1 - 5 1 - 5

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

State regulations

Massachusetts : The following components are listed: Isopropyl alcohol; Naphthalene; 1,2,4-Trimethylbenzene

New York : The following components are listed: Naphthalene

New Jersey : The following components are listed: Isopropyl alcohol; Naphthalene; 1,2,4-Trimethylbenzene

Pennsylvania : The following components are listed: Isopropyl alcohol; Naphthalene; 1,2,4-Trimethylbenzene

California Prop. 65

No products were found.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	Yes.	No.	Yes.	No.

Section 16. Other information

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

Health : 1 * **Flammability :** 3 **Physical hazards :** 0

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.

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

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

Section 16. Other information

Health : 1 **Flammability :** 3 **Instability :** 0

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US Tariff Heading Number : 3811-90-0000

Schedule B Code : 3811-90-0000

History

Date of issue mm/dd/yyyy : 11/15/2014

Version : 1

Revised Section(s) : Not applicable.

Prepared by : KMK Regulatory Services Inc.

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.


Schaeffer's
1839
DIESEL TREAT 2000
PREMIUM
DIESEL
WINTERIZED
16 OZ. (0.473L)
• Formulated with SynShield® Lubricity Technology
• Specialty formulated for Ultra Low Sulfur Diesel Fuels and Biodiesel Blends
• Non-alcohol jet fuel de-icer/dispersant technology
TREATMENT RATIO:
2 OZ. TO 15 GAL • 16 OZ. TO 125 U.S. GAL

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

137B Diesel Treat 2000™ Ultra Low Sulfur

Section 1. Identification

GHS product identifier : 137B Diesel Treat 2000™ Ultra Low Sulfur

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Fuel additive for diesel and biodiesel fuels.

Supplier's details :
Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

Section 2. Hazards identification

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

Classification of the substance or mixture :
FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
CARCINOGENICITY - Category 2
ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Section 2. Hazards identification

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

Response : Collect spillage. IF exposed or concerned: Get medical attention. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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

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

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Light aromatic petroleum naphtha	30 - 60	64742-95-6
1,2,4-Trimethylbenzene	10 - 30	95-63-6
Solvent naphtha (petroleum), heavy aromatic	10 - 30	64742-94-5
Benzene, ethylenated, residues, distn. lights	10 - 30	178535-25-6
Xylene	5 - 10	1330-20-7
2-Butoxyethanol	5 - 10	111-76-2
1,3,5-Triethylbenzene	1 - 5	102-25-0
2-Ethylhexyl nitrate	1 - 5	27247-96-7
Naphthalene	1 - 5	91-20-3
Ethylbenzene	1 - 5	100-41-4

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 20 minutes. Get medical attention.

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 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

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

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

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

Over-exposure signs/symptoms

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

Inhalation : No known significant effects or critical hazards.

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

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

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

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

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 dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet or water-based fire extinguishers.

Section 5. Fire-fighting measures

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

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

Special protective actions for fire-fighters : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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

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

Methods and materials for containment and cleaning up

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

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

Section 7. Handling and storage

Precautions for safe handling

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

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. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Light aromatic petroleum naphtha	**NIOSH REL (United States, 1/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **Manufacturer (United States).** TWA: 40 ppm 8 hours.
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 6/2013).** TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **NIOSH REL (United States, 4/2013).** TWA: 125 mg/m³ 10 hours. TWA: 25 ppm 10 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 25 ppm 8 hours. TWA: 125 mg/m³ 8 hours.
Xylene	**ACGIH TLV (United States, 6/2013).** STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
2-Butoxyethanol	**ACGIH TLV (United States, 6/2013).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 4/2013). Absorbed through skin.** TWA: 24 mg/m³ 10 hours. TWA: 5 ppm 10 hours. **OSHA PEL (United States, 2/2013). Absorbed through skin.** TWA: 240 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Naphthalene	**ACGIH TLV (United States, 6/2013). Absorbed through skin.** STEL: 79 mg/m³ 15 minutes. STEL: 15 ppm 15 minutes. TWA: 52 mg/m³ 8 hours. TWA: 10 ppm 8 hours. **NIOSH REL (United States, 4/2013).** STEL: 75 mg/m³ 15 minutes. STEL: 15 ppm 15 minutes. TWA: 50 mg/m³ 10 hours. TWA: 10 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 50 mg/m³ 8 hours. TWA: 10 ppm 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 6/2013).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 4/2013).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

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

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 8. Exposure controls/personal protection

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: chemical splash goggles.

Skin 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

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

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Tan to dark

Odor : Aromatic solvent.

Odor threshold : Not available.

pH : Not available.

Melting point/ Dropping Point : Not available.

Boiling point : 154.27°C (309.7°F)

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

Evaporation rate : <1 (Butyl acetate = 1)

Flammability (solid, gas) : Not available.

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

Vapor pressure : <0.013 kPa (<0.1 mm Hg) [room temperature]

Vapor density : >1 [Air = 1]

Relative density : 0.89

Solubility : Negligible in water.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

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

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, acids and alkalis.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Light aromatic petroleum naphtha	LD50 Oral	Rat	8400 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
2-Butoxyethanol	LC50 Inhalation Vapor	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
2-Ethylhexyl nitrate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>10000 mg/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Light aromatic petroleum naphtha	Eyes - Mild irritant	Rabbit	-	24 hours 100 µL	-
Solvent naphtha (petroleum), heavy aromatic	Skin - Mild irritant	Rabbit	-	24 hours 500 µL	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100%	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 0.05 mL	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

There is no data available.

Section 11. Toxicological information

Carcinogenicity

There is no data available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene	-	3	-
2-Butoxyethanol	-	3	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,2,4-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
Light aromatic petroleum naphtha	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), heavy aromatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

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

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : No known significant effects or critical hazards.

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

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

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Section 11. Toxicological information

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

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

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2805 mg/kg
Dermal	3057.3 mg/kg
Inhalation (gases)	77173.6 ppm
Inhalation (vapors)	51.77 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours
	Acute LC50 22.4 mg/L Fresh water	Fish - Tilapia zillii	96 hours
Xylene	Acute IC50 10 mg/L	Algae	72 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000 mg/L Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours
Naphthalene	Acute EC50 1600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
	Chronic NOEC 0.67 ppm Fresh water	Fish - Oncorhynchus kisutch	40 days
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2970 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

Persistence and degradability

There is no data available.

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1,2,4-Trimethylbenzene	3.63	243	low
Solvent naphtha (petroleum), heavy aromatic	2.8 to 6.5	99 to 5780	high
Benzene, ethylenated, residues, distn. lights	3.43 to 6.5	-	high
Xylene	3.12	8.1 to 25.9	low
2-Butoxyethanol	0.81	-	low
2-Ethylhexyl nitrate	5.24	-	high
Naphthalene	3.4	36.5 to 168	low
Ethylbenzene	3.6	-	low

Mobility in soil

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

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

Section 13. Disposal considerations

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

Section 13. Disposal considerations

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene Naphthalene	1330-20-7 91-20-3	Listed Listed	U239 U165

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Light aromatic petroleum naphtha, 1,2, 4-Trimethylbenzene). Marine pollutant (Benzene, ethylenated, residues, distn. lights, 1,3, 5-Triethylbenzene) RQ (Xylene, Naphthalene)	3	III		This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by vessel. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes. **Reportable quantity** At all time please check for possible RQ (Reportable Quantities)
IMDG Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Light aromatic petroleum naphtha, 1,2, 4-Trimethylbenzene). Marine pollutant (1,2, 4-Trimethylbenzene, Benzene, ethylenated, residues, distn. lights)	3	III		The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
IATA-DGR Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Light aromatic petroleum naphtha, 1,2, 4-Trimethylbenzene)	3	III		The environmentally hazardous substance mark may appear if required by other transportation regulations.

PG* : Packing group

AERG : 128

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) PAIR**: Naphthalene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Naphthalene; Ethylbenzene
Clean Water Act (CWA) 311: Xylene; Naphthalene; Ethylbenzene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : 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 : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
1,2,4-Trimethylbenzene	10 - 30	Yes.	No.	No.	Yes.	No.
Benzene, ethylenated, residues, distn. lights	10 - 30	No.	No.	No.	Yes.	No.
Xylene	5 - 10	Yes.	No.	No.	Yes.	No.
2-Butoxyethanol	5 - 10	No.	No.	No.	Yes.	No.
1,3,5-triethylbenzene	1 - 5	Yes.	No.	No.	Yes.	No.
2-Ethylhexyl nitrate	1 - 5	Yes.	No.	No.	Yes.	No.
Naphthalene	1 - 5	Yes.	No.	No.	Yes.	Yes.
Ethylbenzene	1 - 5	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	1,2,4-Trimethylbenzene Xylene 2-Butoxyethanol Naphthalene Ethylbenzene	95-63-6 1330-20-7 111-76-2 91-20-3 100-41-4	10 - 30 5 - 10 5 - 10 1 - 5 1 - 5
Supplier notification	1,2,4-Trimethylbenzene Xylene 2-Butoxyethanol Naphthalene Ethylbenzene	95-63-6 1330-20-7 111-76-2 91-20-3 100-41-4	10 - 30 5 - 10 5 - 10 1 - 5 1 - 5

Section 15. Regulatory information

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

State regulations

Massachusetts : The following components are listed: 2-Butoxyethanol; 1,2,4-Trimethylbenzene; Xylene; Naphthalene; Ethylbenzene

New York : The following components are listed: Xylene; Cumene; Naphthalene; Ethylbenzene

New Jersey : The following components are listed: 2-Butoxyethanol; 1,2,4-Trimethylbenzene; Xylene; Cumene; Naphthalene; Ethylbenzene

Pennsylvania : The following components are listed: 2-Butoxyethanol; 1,2,4-Trimethylbenzene; Xylene; Cumene; Naphthalene; Ethylbenzene

California Prop. 65

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

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	Yes.	No.	Yes.	No.
Ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Cumene	Yes.	No.	No.	No.

Section 16. Other information

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

Health : 2 * **Flammability :** 2 **Physical hazards :** 0

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.

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

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

Health : 2 **Flammability :** 2 **Instability :** 0

US Tariff Heading Number : 3811.90.0000

Schedule B Code : 3811.90.0000

History

Date of issue mm/dd/yyyy : 05/15/2014

Version : 1

Revised Section(s) : Not applicable.

Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Although the information and recommendations set forth herein (hereafter referred to as information) are presented in good faith and believed to be accurate and factual as of the date hereof, Schaeffer Mfg. Company makes no representation as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving the same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Schaeffer Mfg. Company be responsible for damages of any natures whatsoever resulting from the use or reliance upon information. **No representation or warranty, either expressed or implied, of merchantability or fitness for a particular purpose is made with respect to information of the product to which the information refers. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user**.

KMK Regulatory Services

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SINCE 1839
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0267 - 005
SUPREME GEAR LUBE SAE 80W-90

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

267 Supreme Gear Lube SAE 80W-90, ISO 150 and 220
268 Supreme Gear Lube SAE 140, ISO 320, 460 and 680

Section 1. Identification

GHS product identifier : 267 Supreme Gear Lube SAE 80W-90, ISO 150 and 220
268 Supreme Gear Lube SAE 140, ISO 320, 460 and 680

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Extreme Pressure gear lubricant.

Supplier's details : Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

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 : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.

Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Not applicable.

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

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Base Oil(s)(*)	60 - 100	See below.
1-Decene, homopolymer, hydrogenated	10 - 30	68037-01-4
Long-chain alkyl amine	0.1 - 1	-
Long-chain alkenyl amine	0.1 - 1	-

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.

Base oil(s) contained in this material may be described by one or more of the following CAS Nos.: 64741-95-3, 64742-52-5, 64742-62-7.

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 20 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 : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute 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 : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

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

Section 4. First aid measures

Ingestion : No known significant effects or critical hazards.

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.

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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 : No specific fire or explosion hazard.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : No special measures are required.

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. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. See also Section 8 for additional information on hygiene measures.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Base Oil(s)(*)	**NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **ACGIH TLV (United States).** TWA: 5 mg/m³ Form: Oil mist. STEL: 10 mg/m³ Form: Oil mist. **OSHA PEL (United States).** TWA: 5 mg/m³ Form: Oil mist.

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

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection : Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact.

Skin protection

Hand protection : Use nitrile or oil resistant gloves.

Body protection : Personal protective clothing such as gloves, aprons, boots and complete facial protection should be selected based on the task being performed and the risks involved. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection : If a risk assessment indicates that respiratory protection is required, use a properly fitted, air-purifying or supplied air respirator that complies with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear.]

Color : Gray-dark-green.

Odor : Strong.

Odor threshold : Not available.

pH : Not applicable.

Melting point/ Dropping Point : Not available.

Boiling point : >300°C (>572°F)

Flash point : Open cup: 243.33°C (470°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

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

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.8867

Solubility : Negligible in water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (100°C): 13.5 to 40.99 cSt
Kinematic (40°C): 135 to 748 cSt

Volatility : Negligible.

VOC content : Not available.

Section 10. Stability and reactivity

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

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling condtitions of temperature and pressure.

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

Conditions to avoid : High heat, high energy ignition sources.

Incompatible materials : Reactive or incompatible with the following materials: Strong oxidizing and reducing agents.

Hazardous decomposition products : Oxides of carbon, sulfur and by-products of incomplete combustion.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
1-Decene, homopolymer, hydrogenated	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Section 11. Toxicological information

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

Ingestion : No known significant effects or critical hazards.

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

There is no data available.

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1-Decene, homopolymer, hydrogenated	>6.5	-	high

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

AERG : Not applicable

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) PAIR: Siloxanes and Silicones, di-Me
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): At least one component is not listed.
Clean Water Act (CWA) 307: Toluene
Clean Water Act (CWA) 311: Ammonia; Toluene

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

Section 15. Regulatory information

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 : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Long-chain alkyl amine Long-chain alkenyl amine	0.1 - 1 0.1 - 1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

SARA 313

No products were found.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic; Residual oils (petroleum), solvent deasphalted; Residual oils (petroleum), solvent-dewaxed

Pennsylvania : None of the components are listed.

California Prop. 65

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

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)

Section 16. Other information

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

Health : 1 **Flammability :** 1 **Physical hazards :** 0

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.

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

Section 16. Other information

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

Health : 1 **Flammability :** 1 **Instability :** 0

US Tariff Heading Number : 2710.19.3040

Schedule B Code : 2710.19.3040

History

Date of issue mm/dd/yyyy : 06/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.


Castle
ORIGINAL
STREAK PROOF
GLASS
CLEANER
PROFESSIONAL FORMULA
NETTOYANT POUR VITRE
CAUTION:
ATTENTION

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle® Streak Proof™**

PRODUCT TYPE: Glass Cleaner
PRODUCT CODE: C0603, C2003

MANUFACTURED FOR: Castle Products, Inc.
424 St. Paul Street
Rochester, NY 14605
800-876-0222 • FAX 585-325-4514
EMERGENCY 585-275-3232

SECTION 2 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: WARNING: Gases Under Pressure, Irritant

POTENTIAL HEALTH EFFECTS:

Eyes: Ethylene glycol monobutyl ether causes moderate irritation and possible corneal injury

Skin: Ethylene glycol monobutyl ether penetrates skin readily. Frequent or widespread contact may result in the absorption of potentially harmful amounts. Signs and symptoms of toxicity are similar to those of swallowing. Solvents may cause defatting dermatitis.

Inhalation: Isopropanol vapors could produce irritation of nose and throat. Propellant is a simple asphyxiant.

Ingestion: May cause headache, nausea, vomiting, and weakness. Ethylene glycol monobutyl ether may cause red blood cell hemolysis and possible liver and kidney damage.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PEL	TLV	STEL	%
Water	7732-18-5	NE	NE	NE	75-100%
Ethylene Glycol Monobutyl Ether	111-76-2	25 ppm	NE	NE	1-5%
Isobutane	75-28-5	1000 ppm	NE	NE	1-5%
Isopropanol	67-63-0	400 ppm	NE	NE	1-5%
Propane	74-98-6	1000 ppm	NE	NE	0.5-1.5%

SECTION 4 FIRST AID MEASURES

First Aid Procedures:

Eye contact: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician if irritation persists.

Skin contact: For skin contact flush with large amounts of water. Call a physician if irritation persists.

Inhalation: Immediately remove from further exposure. Give supplemental oxygen, if breathing is difficult. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by mouth to an unconscious person.

Note to physician: If the product is ingested, treat the affected person symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: [Propellants: ≥-155°F (≥-104°C)] LOWER EXPLOSIVE LIMIT: 1.1% UPPER EXPLOSIVE LIMIT: 12%

EXTINGUISHING MEDIA: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Appropriate for surrounding fire.

UNUSUAL FIRE & EXPLOSION HAZARDS: None

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear pressure-demand self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Isolate area. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Ventilate spaces before entering.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Methods for containment: Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up: Eliminate ignition sources including sources of electrical, static or frictional sparks. Wear appropriate protective equipment and clothing during clean-up.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for disposal.

Large Spills: Dike far ahead of liquid spill for later disposal. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION 7 HANDLING AND STORAGE

Handling: Keep away from heat, sparks, and open flames. Avoid breathing mist. Avoid contact with skin and eyes. Wear suitable protective clothing. Wash hands after handling.
Storage: Keep from freezing. Keep containers tightly closed. Store in a cool, dry place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits: None Established.

Personal protective equipment:
Gloves: Not normally required.
Eye/Face Protection: Not normally required.
Skin Protection: Wear clothing suited to the task being performed.
Respiratory Protection: Not normally required if good ventilation is maintained.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT:	ND	SPECIFIC GRAVITY (H_2O=1):	1
VAPOR PRESSURE:	NE	PERCENT VOLATILE BY VOL %:	99-100%
VAPOR DENSITY (air=1)	>1	EVAPORATION RATE (Butyl Acetate=1):	<1
SOLUBILITY IN WATER:	Complete	APPEARANCE & ODOR:	Clear liquid / fragrant
pH:	10.5		

SECTION 10 STABILITY and REACTIVITY DATA

STABILITY: Stable under normal conditions.
INCOMPATIBILITY (material to avoid): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide, Hydrocarbon fumes and smoke.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Components Test Results: No information available.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

SECTION 12 ECOLOGICAL INFORMATION

Component Test Results: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal instructions: Do not puncture or incinerate containers, even when empty. Dispose according to all applicable Federal, State, and Local regulations.

SECTION 14 TRANSPORT INFORMATION

T.D.G. Classification: Consumer commodity (Aerosols, UN1950, Class 2.2)
D.O.T. Classification: Consumer commodity, ORM-D.

SECTION 15 REGULATORY INFORMATION

US federal regulations: All components are listed in the United States TSCA Regulations.

CERCLA (Superfund) reportable quantity: None

SARA (Superfund Amendments and Reauthorization Act of 1986):
313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 extremely hazardous substance: No
Section 311 hazardous chemical: No

Canada: This Product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 16 OTHER INFORMATION

Further information: (HMIS® is a registered trade and service mark of the NPCA.)

HMIS® ratings Health: 2
Flammability: 1
Physical hazard: 0

NFPA Code 30B: Level 1.

Other: NA-Not Applicable, ND-Not Determined, NE-Not Established.

Disclaimer Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.

PREPARED: 9/9/94 UPDATED: 9/20/2013 PRODUCT #: C0603, C2003


Zep
NON-STREAKING
CLEANER
OR NON-CONDUCTIVE SURFACES
ZEP
40
Cold Weather
Formula
WARNING!
CAUSES EYE IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
CONTENTS UNDER PRESSURE
NET WEIGHT: 1 lb. 2 oz. (510 g)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP 40 (AEROSOL)

Material number : 000000000000014401

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers

For SDS Information	:	Compliance Services 1-877-428-9937
For a Medical Emergency	:	877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	:	CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

Recommended use : Glass Cleaner

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a liquefied gas
Colour	colourless, clear
Odour	alcohol-like, slight

GHS Classification

Gases under pressure : Liquefied gas
Eye irritation : Category 2A

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
Response:
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 + P313 If eye irritation persists: Get medical advice/ attention.
Storage:
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
P403 Store in a well-ventilated place.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
ethanol	64-17-5	>= 10 - < 20
butane	106-97-8	>= 1 - < 5
propane	74-98-6	>= 1 - < 5

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Get medical attention if irritation develops and persists.

In case of eye contact : Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 15 minutes.

If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.

Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.
Causes serious eye irritation.
Review section 2 of SDS to see all potential hazards.

Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet Carbon dioxide (CO2) Alcohol-resistant foam Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Smoke
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Always replace cap after use. Dispose of rinse water in accordance with local and national regulations. Avoid exposure - obtain special instructions before use. Take precautionary measures against static discharges.

Do not breathe vapours or spray mist.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Observe label precautions.
Keep in a dry, cool and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not freeze.
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
		STEL	1,000 ppm	ACGIH
		PEL	1,000 ppm 1,900 mg/m3	CAL PEL
butane	106-97-8	TWA	800 ppm 1,900 mg/m3	NIOSH REL
		TWA	800 ppm 1,900 mg/m3	OSHA P0
		PEL	800 ppm 1,900 mg/m3	CAL PEL
propane	74-98-6	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,800 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,800 mg/m3	OSHA P0
		PEL	1,000 ppm 1,800 mg/m3	CAL PEL

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection		
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Aerosol containing a liquefied gas
Colour	:	colourless, clear
Odour	:	alcohol-like, slight
Odour Threshold	:	No data available
pH	:	not determined
Melting point/freezing point	:	Not applicable
Boiling point	:	93 °C
Flash point	:	Not applicable
Evaporation rate	:	1
Flammability (solid, gas)	:	The product is not flammable.
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	1.1 g/cm3
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	No data available

Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity		
Viscosity, kinematic	:	Not applicable
Heat of combustion	:	7.94 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	:	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash.

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

ethanol:

Acute oral toxicity	:	LD50 Oral Rat: 7,060 mg/kg
Acute inhalation toxicity	:	LC50 Rat: 124.7 mg/l Exposure time: 4 h

butane:

Acute inhalation toxicity	:	LC50 Mouse: 1,237 mg/l Exposure time: 2 h
		LC50 Rat: 1,355 mg/l

propane:

Acute inhalation toxicity	:	LC50 Mouse: 1,237 mg/l Exposure time: 2 h
		LC50 Rat: 658 mg/l Exposure time: 4 h
		LC50 Rat: 1,355 mg/l

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

ethanol:

butane:
propane:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Components:

butane :

Partition coefficient: n-octanol/water	:	Pow: 2.89

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonia, aqueous solution	1336-21-6	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Acute Health Hazard Sudden Release of Pressure Hazard
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65		This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	This product contains one or several components that are not on the Canadian DSL nor NDSL.

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

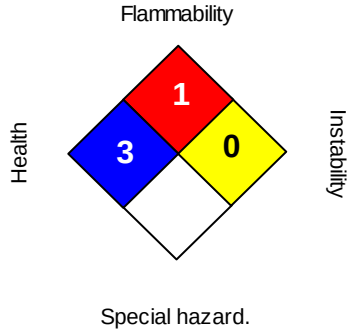
Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms :

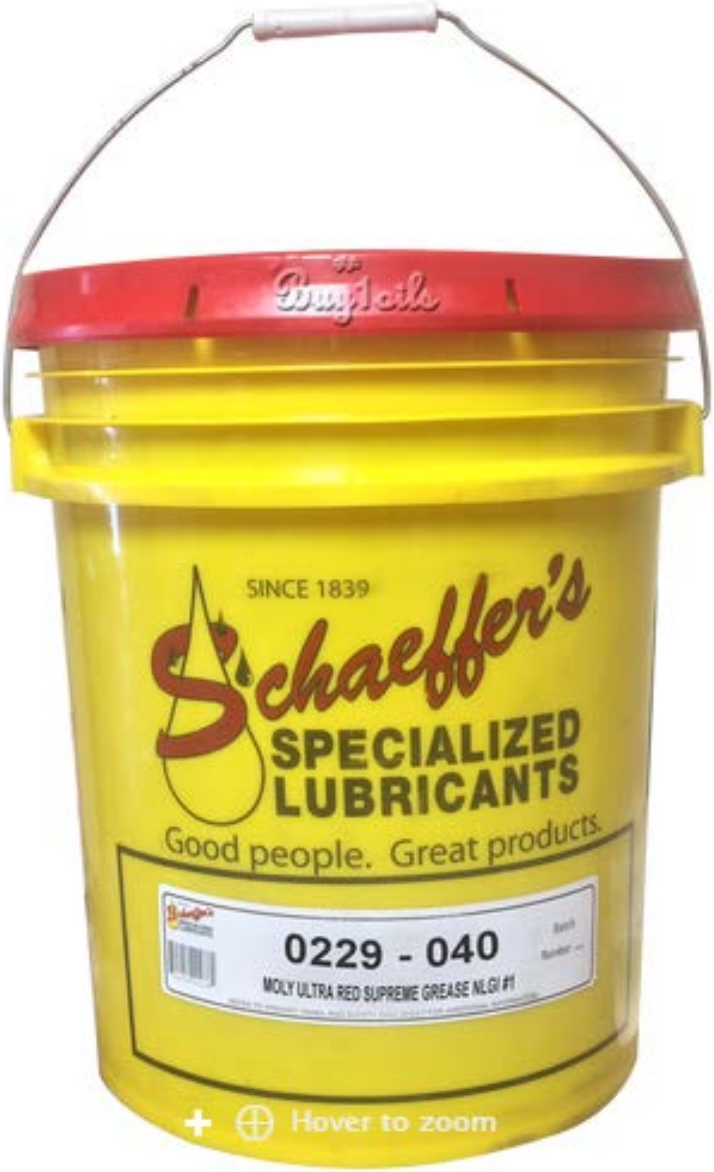
Signal word : **Warning:**
Hazard statements : Contains gas under pressure; may explode if heated. Causes serious eye irritation.
Precautionary statements :

Prevention: Wash skin thoroughly after handling. Wear eye protection/ face protection.
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.
Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place.

Version:	2.2
Revision Date:	01/05/2017
Print Date:	02/23/2017

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information 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. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®,Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®,Rexodan®, Mykal™, and a number of private labeled brands.


SINCE 1839
Schaeffer's
SPECIALIZED
LUBRICANTS
Good people. Great products.
0229 - 040
MOLY ULTRA RED SUPREME GREASE NLGI #1
Hover to zoom

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

229 Ultra Red Supreme NLGI Grades 1 and 2

Section 1. Identification

GHS product identifier : 229 Ultra Red Supreme NLGI Grades 1 and 2

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Extreme pressure lubricating grease.

Supplier's details : Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

Section 2. Hazards identification

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

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Base Oil(s)(*)	60 - 100	See below.
1-Decene, homopolymer, hydrogenated	1 - 5	68037-01-4
Antimony, dialkyl dithiocarbamate	1 - 5	15890-25-2
Phosphoric acid, sodium salt, hydrate	1 - 5	10101-89-0

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.

Base oil(s) contained in this material may be described by one or more of the following CAS Nos.: 64742-01-4, 64742-62-7, 64742-65-0.

Section 4. First aid measures

Description of necessary first aid measures

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

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

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

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

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

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

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

Special protective actions for fire-fighters : No special measures are required.

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. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

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

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not reuse container.

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. See also Section 8 for additional information on hygiene measures.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Base Oil(s)(*)	**NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **ACGIH TLV (United States).** TWA: 5 mg/m³ Form: Oil mist. STEL: 10 mg/m³ Form: Oil mist. **OSHA PEL (United States).** TWA: 5 mg/m³ Form: Oil mist.
Antimony, dialkyl dithiocarbamate	**ACGIH TLV (United States, 4/2014).** TWA: 0.5 mg/m³, (as Sb) 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 0.5 mg/m³, (as Sb) 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 0.5 mg/m³, (as Sb) 10 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.

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 : Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact.

Skin protection

Hand protection : Use nitrile or oil resistant gloves.

Body protection : Personal protective clothing such as gloves, aprons, boots and complete facial protection should be selected based on the task being performed and the risks involved. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing.

Section 8. Exposure controls/personal protection

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection : If a risk assessment indicates that respiratory protection is required, use a properly fitted, air-purifying or supplied air respirator that complies with an approved standard. 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 : Semi-solid grease.

Color : Red.

Odor : Mild petroleum.

Odor threshold : Not available.

pH : Not applicable.

Melting point/ Dropping Point : Not available.

Boiling point : >300°C (>572°F)

Flash point : Open cup: 268 to 277°C (514.4 to 530.6°F) [Cleveland.]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

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

Vapor pressure : Not available.

Vapor density : >1 [Air = 1]

Relative density : 0.9 to 1.01

Solubility : Negligible in water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not applicable.

Volatility : Not available.

Section 10. Stability and reactivity

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

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling condtitions of temperature and pressure.

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

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: Strong acids, bases and oxidizers.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Antimony, dialkyl dithiocarbamate	LD50 Dermal	Rabbit	16000 mg/kg	-
	LD50 Oral	Rat	16400 mg/kg	-
Phosphoric acid, sodium salt, hydrate	LD50 Oral	Rat	7400 mg/kg	-

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phosphoric acid, sodium salt, hydrate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
1-Decene, homopolymer, hydrogenated	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Section 11. Toxicological information

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1-Decene, homopolymer, hydrogenated	>6.5	-	high

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

AERG : Not applicable

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**: Not determined

United States inventory (TSCA 8b): At least one component is not listed.

Clean Water Act (CWA) 307: Antimony, dialkyl dithiocarbamate

Clean Water Act (CWA) 311: Phosphoric acid, sodium salt, hydrate; Sodium hydroxide; Ammonia

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : 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.

Section 15. Regulatory information

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Phosphoric acid, sodium salt, hydrate	1 - 5	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Antimony, dialkyl dithiocarbamate	15890-25-2	1 - 5
Supplier notification	Antimony, dialkyl dithiocarbamate	15890-25-2	1 - 5

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

State regulations

Massachusetts : The following components are listed: Phosphoric acid, sodium salt, hydrate

New York : The following components are listed: Phosphoric acid, sodium salt, hydrate

New Jersey : The following components are listed: Residual oils (petroleum), solvent-dewaxed; Residual oils (petroleum), solvent-refined; Distillates (petroleum), solvent-dewaxed heavy paraffinic; Antimony, dialkyl dithiocarbamate

Pennsylvania : The following components are listed: Aluminum, benzoate hydrogenated tallow fatty acid iso-Pr alc. complexes; Antimony, dialkyl dithiocarbamate; Phosphoric acid, sodium salt, hydrate

California Prop. 65

No products were found.

Section 16. Other information

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

Health : 1 **Flammability :** 1 **Physical hazards :** 0

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.

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

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

Health : 1 **Flammability :** 1 **Instability :** 0

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US Tariff Heading Number : 2710.19.3750

Schedule B Code : 2710.19.3750

Section 16. Other information

History

Date of issue mm/dd/yyyy : 05/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.

Although the information and recommendations set forth herein (hereafter referred to as information) are presented in good faith and believed to be accurate and factual as of the date hereof, Schaeffer Mfg. Company makes no representation as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving the same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Schaeffer Mfg. Company be responsible for damages of any natures whatsoever resulting from the use or reliance upon information. **No representation or warranty, either expressed or implied, of merchantability or fitness for a particular purpose is made with respect to information of the product to which the information refers. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user**.


NAPA
Citrus
Orange
Hand Cleaner

Material Safety Data Sheet (MSDS)

NAPA FAST ORANGE SMOOTH LOTION 5015, 5025

==========

MATERIAL SAFETY DATA SHEET
Effective Date: 7-11-01 Revision Date: none
FAST ORANGE SMOOTH LOTION 5015, 5025
Code: PER Page: 1

==========

Section 1 - Product and Company Identification

PRODUCT NAME: FAST ORANGE SMOOTH LOTION 5015, 5025

MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER
Permatex, Inc. (877)376-2839

Hartford, CT 06106 MISCELLANEOUS INFORMATION
(860)571-5100

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Section 2 - Hazardous Ingredients

Ingredients Percent ACGIH 8 Hr. TWA: OSHA 8 Hr. TWA:
Water
7732-18-5 80-90
D-Limonene
5989-27-5 5-15 Not Established Not Established
OXO ALCOHOL POLYGLYCOL
ETHER
127036-24-2 1-10

==========

Section 3 - Hazards Indentification

Toxicity: Oral LD50 greater than 5000 mg/kg. Primary irritation tests show that this product is not a primary
irritant.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: None under normal conditons of use.
Ingredients Percent NTP:
ACGIH Carcinogens IARC:
D-Limonene
5989-27-5
5-15 male rat-clear evidence;
female rat-no evidence; male
mice-no evidence; female
mice-no evidence

Medical Conditions Recognized as Being
Aggravated by Exposure:
None known

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Section 4 - First Aid Measures

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Skin Contact: Flush with copious amounts of water.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

==========

Section 5 - Firefighting Measures

Flash Point (F/C): 193 degrees F. Method: Setaflash Closed Cup
Recommended Extinguishing Media: Carbon dioxide, chemical powder
Special Fire-Fighting Procedures: No special procedures.
Hazardous Products Formed by Fire or Thermal Decomposition:
None anticipated
Unusual Fire/Explosion Hazards: None
Lower Explosive Limit: Not determined.
Upper Explosive Limit: Not determined.

==========

Section 6 - Environmental Release Measures

Spill Procedures: Rinse away with water or wipe up with a towel.

==========

Section 7 - Handling and Storage

Storage: Hand cleaner should be stored at temperatures between 40 degrees F. and 100 degrees F.
Handling: Follow all general safety precautions.

==========

Section 8 - Exposure Controls/Personal Protection

Eyes: Not normally required, but wearing safety glasses will minimize exposure.
Skin: Not necessary
Ventilation: General ventilation is usually adequate.
Respiratory Protection: Not normally necessary.

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Section 9 - Physical and Chemical Properties

Appearance: White viscous lotion
Odor: Orange odor.
Boiling Point (F): Not determined.
pH: 7.0
Solubility in Water: SOLUBLE
Specific Gravity: 0.97
VOC Content(Wt.%): 7.9% by weight
Vapor Pressure: Not Determined
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

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Section 10 - Stability and Reactivity

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatabilities: None known
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or
Thermal Decomposition:
None anticipated

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Section 11 - Toxicological Information

See Section 3

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Section 12 - Ecological Information

No data available

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Section 13 - Disposal Considerations

Recommended Method of Disposal: Dispose of uncontaminated material through sewer system with permission of the authority responsible for that system.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

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Section 14 - Transport Information

DOT (49CFR 172)
Domestic Ground Transport
DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE
IMDG
Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

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Section 15 - Regulatory Information

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE
CALIFORNIA PROP 65:
No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.
TSCA Inventory Status:
All components of this product are listed (or exempt) on the EPA TSCA inventory.

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Section 16 - Other Information

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 2 , REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 2, PHYSICAL HAZARD 0
NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.
Prepared By: Denise Boyd Health and Safety Manager

Company: Permatex. Inc. 10 Columbus Blvd. Hartford, CT 06106
Telephone Number: 1-87-Permatex (877) 376-2839
Revision Date: 07/11/2001
Revision Number: 0


SINCE
1839
Schaeffer's
SUPREME 7000™
SYNTHETIC PLUS
DIESEL ENGINE OIL
15W-40
Formulated to Meet API CJ-4
1 U.S. QT (0.946L)

Conforms to HazCom 2012/United States

SAFETY DATA SHEET

700 Supreme 7000™ Synthetic Plus 15W-40
711 Supreme 7000™ Synthetic Plus 10W-30

Section 1. Identification

GHS product identifier : 700 Supreme 7000™ Synthetic Plus 15W-40
711 Supreme 7000™ Synthetic Plus 10W-30

Other means of identification : Not available.

Product type : Liquid.

Identified uses

Heavy Duty Diesel Engine Oil.

Supplier's details : Schaeffer Mfg. Company
102 Barton Street
Saint Louis, Missouri 63104
Tel: 314-865-4100
Fax: 314-865-4107
Toll Free: 1-800-325-9962
E-Mail: safety@schaefferoil.com
Web: http://www.schaefferoil.com

Emergency telephone number (with hours of operation) : +1 314 865-4105 (24-hour response number)

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 : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Section 2. Hazards identification

Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Not applicable.

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

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Base Oil(s)(*)	30 - 60	See below.
1-Decene, homopolymer, hydrogenated	10 - 30	68037-01-4
Zinc Alkyldithiophosphate	1 - 5	68649-42-3
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-	0.1 - 1	94270-86-7

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.

Base oil(s) contained in this material may be described by one or more of the following CAS Nos.: 8042-47-5, 64742-46-7, 64742-47-8, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 178603-64-0, 178603-65-1, 178603-66-2, 445411-73-4.

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 20 minutes. Get medical attention.

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 : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

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

Inhalation : No known significant effects or critical hazards.

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

Ingestion : No known significant effects or critical hazards.

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.

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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 : No specific fire or explosion hazard.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : No special measures are required.

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. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. See also Section 8 for additional information on hygiene measures.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Base Oil(s)(*)	**NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **ACGIH TLV (United States).** TWA: 5 mg/m³ Form: Oil mist. STEL: 10 mg/m³ Form: Oil mist. **OSHA PEL (United States).** TWA: 5 mg/m³ Form: Oil mist.

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

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact.

Skin protection

Hand protection : Use nitrile or oil resistant gloves.

Body protection : Personal protective clothing such as gloves, aprons, boots and complete facial protection should be selected based on the task being performed and the risks involved. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection : If a risk assessment indicates that respiratory protection is required, use a properly fitted, air-purifying or supplied air respirator that complies with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear.]

Color : Green.

Odor : Petroleum.

Odor threshold : Not available.

pH : Not applicable.

Melting point/ Dropping Point : Not available.

Boiling point : >315°C (>599°F)

Section 9. Physical and chemical properties

Flash point : Closed cup: >229°C (>444.2°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

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

Vapor pressure : Not available.

Vapor density : >1 [Air = 1]

Relative density : 0.87 to 0.88

Solubility : Negligible in water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (100°C): 9.3 to 16.3 cSt

Volatility : 0% (v/v)

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 : May react with oxygen and strong oxidizing agents, such as chlorates, peroxides, etc.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: Strong acids, bases and oxidizers.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Zinc Alkyldithiophosphate	Eyes - Irritant	Rabbit	-	-	-

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
1-Decene, homopolymer, hydrogenated	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : No known significant effects or critical hazards.

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

Ingestion : No known significant effects or critical hazards.

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

There is no data available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Zinc Alkyldithiophosphate	Acute EC50 1 to 5 mg/L Acute EC50 1 to 1.5 mg/L Chronic LC50 1 to 5 mg/L	Algae Crustaceans Fish	96 hours 48 hours 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1-Decene, homopolymer, hydrogenated	>6.5	-	high
1H-Benzotriazole-1-methanamine, N, N-bis(2-ethylhexyl)-ar-methyl-	>6	-	high

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

AERG : Not applicable

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) PAIR: Zinc Alkyldithiophosphate; Naphthalene

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): At least one component is not listed.

Clean Water Act (CWA) 307: Toluene; Zinc Alkyldithiophosphate; Benzene; Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts; Naphthalene

Clean Water Act (CWA) 311: Toluene; Benzene; Ethylenediamine; Naphthalene

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

Section 15. Regulatory information

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Ethylenediamine	0 - 0.1	Yes.	10000	1337.1	5000	668.5

SARA 304 RQ : 84817642.1 lbs / 38507209.5 kg [11625746.9 gal / 44008239.4 L]

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Zinc Alkyldithiophosphate 1H-Benzotriazole-1-methanamine, N,N-bis (2-ethylhexyl)-ar-methyl-	1 - 5 0.1 - 1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Zinc Alkyldithiophosphate	68649-42-3	1 - 5
Supplier notification	Zinc Alkyldithiophosphate	68649-42-3	1 - 5

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

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : The following components are listed: Zinc Alkyldithiophosphate

Pennsylvania : The following components are listed: Zinc Alkyldithiophosphate

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Benzene	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)
Naphthalene	Yes.	No.	Yes.	No.

Section 16. Other information

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

Health : 1 **Flammability :** 1 **Physical hazards :** 0

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.

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

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

Health : 1 **Flammability :** 1 **Instability :** 0

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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.

US Tariff Heading Number : 3403.19.0000

Schedule B Code : 3403.19.0000

History

Date of issue mm/dd/yyyy : 10/15/2014

Version : 1

Revised Section(s) : Not applicable.

Prepared by : KMK Regulatory Services Inc.

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.


Castle
INDUSTRIAL
CLEANER
NETTOYANT
INDUSTRIEL

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle® Industrial Cleaner™**

PRODUCT TYPE: Cleaner
PRODUCT CODE: C2020

MANUFACTURED FOR: Castle Products, Inc.
424 St. Paul Street
Rochester, NY 14605
800-876-0222 • FAX 585-325-4514
EMERGENCY 585-275-3232

SECTION 2 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: WARNING: Gases Under Pressure, Irritant
POTENTIAL HEALTH EFFECTS: Eyes: Irritating to eyes.
Skin: Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.
Inhalation: Irritating to respiratory system. Avoid breathing vapors or mists. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.
Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Potential for aspiration if swallowed.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PEL	TLV	STEL	%
Propane/Isobutane/N-Butane	68476-86-8	NE	NE	NE	3-7%
2-Butoxyethanol	111-76-2	50ppm	20ppm	NE	1-5%

SECTION 4 FIRST AID MEASURES

First Aid Procedures:
Eye contact: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician if irritation persists.
Skin contact: For skin contact flush with large amounts of water. Call a physician if irritation persists.
Inhalation: Immediately remove from further exposure. Give supplemental oxygen, if breathing is difficult. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by mouth to an unconscious person.

Note to physician: No information available.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: [Propellant: ≥-155°F (≥-104°C)] LOWER EXPLOSIVE LIMIT: ND UPPER EXPLOSIVE LIMIT: ND
EXTINGUISHING MEDIA: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Appropriate for surrounding fire.
UNUSUAL FIRE & EXPLOSION HAZARDS: None
SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear pressure-demand self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Isolate area. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Ventilate spaces before entering.
Environmental precautions: Prevent further leakage or spillage if safe to do so.
Methods for containment: Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up: Eliminate ignition sources including sources of electrical, static or frictional sparks. Wear appropriate protective equipment and clothing during clean-up.
Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for disposal.

Large Spills: Dike far ahead of liquid spill for later disposal. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION 7 HANDLING AND STORAGE

Handling: Propellant is extremely flammable. Do not store near ignition sources. Avoid breathing mist. Avoid contact with skin and eyes. Wear suitable protective clothing. Wash hands after handling.
Storage: Keep from freezing. Keep containers tightly closed. Store in a cool, dry place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits: None Established.

Engineering controls: Use local exhaust ventilation.
Personal protective equipment:
General: Eye wash fountain and emergency showers are recommended.
Eye/face Protection: Wear safety glasses or goggles.
Skin Protection: Wear suitable protective clothing. Impervious gloves recommended but not required.
Respiratory Protection: When respiratory protection is required, wear a NIOSH/MSHA approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT:	ND	SPECIFIC GRAVITY (H_2O=1):	ND
VAPOR PRESSURE:	ND	PERCENT VOLATILE BY VOL %:	>95%
VAPOR DENSITY (air=1)	>1	EVAPORATION RATE (Butyl Acetate=1):	ND
SOLUBILITY IN WATER:	ND	APPEARANCE & ODOR:	Clear Liquid / Pine
pH:	11.5	VOC Content:	9.2%

SECTION 10 STABILITY and REACTIVITY DATA

STABILITY: Stable.
INCOMPATIBILITY (material to avoid): Strong oxidizing agents, Strong bases.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide, fumes.
HAZARDOUS POLYMERIZATION: No information available.

SECTION 11 TOXICOLOGICAL INFORMATION

Components Test Results:
2-Butoxyethanol: Oral LD_{50} (rat) 470 mg/kg; Dermal LD_{50} (rabbit) 2270 mg/kg; Inhalation LC_{50} (rat) 450 ppm (4h).

There are no known carcinogenic chemicals in this product.

SECTION 12 ECOLOGICAL INFORMATION

Component Test Results: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal instructions: Dispose according to all applicable Federal, State, and Local regulations.

SECTION 14 TRANSPORT INFORMATION

DOT Ground: Consumer Commodity ORM-D, or Limited Quantity.

SECTION 15 REGULATORY INFORMATION

US federal regulations: All components are listed in the United States TSCA Regulations.

CERCLA (Superfund) reportable quantity: None

SARA (Superfund Amendments and Reauthorization Act of 1986):
313 Components: This material does contain a chemical component that exceeds the threshold (De Minimis) reporting levels established by SARA Title III, Section 313: 2-Butoxyethanol: Threshold Value 1.0%.

Section 302 extremely hazardous substance: No
Section 311/312 hazard categories: Acute Health Hazard: Yes; Chronic Health Hazard: No; Fire Hazard: No; Sudden Release of Pressure Hazard: No; Reactive Hazard: No.

Canada: This Product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 16 OTHER INFORMATION

Further information: (HMIS® is a registered trade and service mark of the NPCA.)

HMIS® ratings	Health: 2
	Flammability: 4
	Physical hazard: 2
NFPA ratings	Health: 2
	Flammability: 4
	Instability: 0

Other: NA-Not Applicable, ND-Not Determined, NE-Not Established.

Disclaimer Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.

PREPARED: 4/1/93 UPDATED: 12/23/2014 PRODUCT #: C2020


malco
The Choice Of The Pros
Perfect 10
FAST DRYING SPRAY
PART NO. 114520
NET WT. 12 OZ.

MSDS Material Safety Data Sheet
Malco Products, Inc.

Malco Perfect 10

MSDS Number: 1145 Revision Date: 11/17/08

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Malco Products, Inc.
361 Fairview Ave.

Barberton, OH 44203

Contact: Technical Department
Telephone Number: 800.253.2526
FAX Number: 3307778313
E-Mail:
Web www.malcopro.com

Product Name:	Malco Perfect 10
Revision Date:	11/17/08
Version:	02
MSDS Number:	1145
CAS Number:	Mixture
Product Use:	Aerosol

24 hour Emergency Assistance:
1-800-424-9300

2 HAZARDS IDENTIFICATION

Route of Entry:	See Below
Target Organs:	English: There is no data available for this product. Spanish: No hay nada data. French:Aucun renseignement
Inhalation:	English: Inhalation irritant. Use in open or naturally well ventilated areas. Spanish: Irritante de la inhalación. Uso en áreas abiertas o naturalmente bien ventiladas. French: Inhalation irritante Utiliser dans des zones ouvertes ou ventilées naturellement.
Skin Contact:	English: May cause mild irritation. Spanish: Es posible causar irritación . French: Peut irriter la peau.
Eye Contact:	English: May cause moderate to severe eye damage. Spanish: Es posuble causar daño moderado a severo a los ojos. French: Peut provoquer modéré au dommage d'oeil sévère.
Ingestion:	Eng: Harmful if swallowed. Fr: Nocif si avalé. Sp: Dañoso si está tragado.

HMIS II-ratings (scale 0-4): Health = 1, Fire = 4, Reactivity = 0
HMIS® Rating H1/F4/PH0
NFPA-ratings (scale 0-4): Health = 1, Fire = 4, Reactivity = 0

HSNO: HSR002515
Aerosols (Flammable) Group Standard 2006

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Perc.	Chemical Name
63148-62-9	5-10%	Siloxanes and Silicones, di-Me
110-54-3	30-40%	Hexane
68476-85-7	55-60%	Petroleum gases, liquefied

4 FIRST AID MEASURES

Inhalation:

English: If breathing is difficult or irritating, move person to fresh air immediately. If symptoms persist, get medical attention.
Spanish: Si respiración está difícil o irritante, se mueva la persona al aire fresco inmediatamente. Si los síntomas persisten, busque la atención médica.
French: En cas de difficultés respiratoires ou d'irritation, transporter immédiatement la personne à l'air frais. Si les symptômes persistent, consulter un médecin.

Skin Contact:

English: Rinse area with soap and water. Seek medical attention if any redness or irritation persists.
Spanish: Enjuaga el área con jabon y agua. Busque la atención médica.
French: La région de rinçage avec le savon et l'eau. Cherchez l'attention médicale si la rougeur ou l'irritation persistent.

Eye Contact:

English: Flush immediately with large amounts of clean water for a minimum of 15 minutes, lifting upper and lower lids occasionally. Do not rub eyes. Seek medical attention immediately. If medical attention is not immediately available, continue to flush for an additional 15 minutes or until medical attention can be provided.
Spanish: Vacie inmediatamente con mucho agua limpio por un mínimo de 15 minutos, levantándose los párpados superiores y inferiores de vez en cuando. No se frote los ojos. Busque la atención médica inmediatamente. Si la atención médica no está inmediatamente, continue vaciarse los ojos por 15 minutos más o hasta la atención médica está.
French: Rincer immédiatement à grande eau propres pendant au moins 15 minutes, en soulevant les paupières inférieures et supérieures de temps à autre. Ne pas se frotter les yeux. Contacter immédiatement un médecin. Si le médecin n'est pas disponible, continuer de rincer pendant 15 minutes ou jusqu'à ce que le médecin soit libre.

Ingestion:

English: Do not induce vomiting. If the person is conscious, give several glasses of water to dilute the ingested material. Small amounts that may have accidentally entered the mouth should be rinsed out thoroughly with water. Seek medical attention.
Spanish: No induzca vomitar. Si la persona está consciente, dále dos vasos de agua para diluir la materia ingerida. Pocas cantidades que han podido entrar la boca deben ser aclarado hacia fuera de la boca muy bien con agua. Busque la atención médica inmediatamente.
French: Ne pas faire vomir. Si la personne est consciente, lui donner plusieurs verres d'eau pour diluer les matériaux absorbés. Les petites quantités qui peuvent avoir pénétré la bouche doivent être rincées avec de l'eau. Contacter immédiatement un médecin.

Note to physician: Product contains 30-40% Hexane.

5 FIRE FIGHTING MEASURES

Flash Point:	-40 F
Flash Point Method:	closed cup
Burning Rate:	Not Available

Autoignition Temperature:	Not Available
LEL:	1.8
UEL:	9.2
Flammability Classification:	Extremely Flammable

English: Extinguishing media -- water. fog, foam CO2 or dry chemical media.
Spanish: La extinción de medios - agua. niebla, espuma CO2 o medios químicos secos.
French: Le fait d'éteindre des mass-média - l'eau. le brouillard, la mousse CO2 ou les mass-média chimiques secs.

English: Containers should be cooled with water to prevent vapor pressure building up. Use equipment or shielding, as required, to protect personnel from bursting, rupturing or venting containers. Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive pressure self contained breathing apparatus and full protection clothing. At elevated temperatures over 54C - 130C, containers exposed to direct flame or heat should be cooled with water to prevent weakening of container structure.

Spanish: Los contenedores deberían ser refrescados con el echar agua para impedir la presión de vapor aumentar. Equipo de uso o proteger, como requerido, para proteger a personal de explosión, rompimiento o descarga de contenedores. Los bomberos y los otros que pueden ser expuestos a los productos de combustión deberían ser equipados con la presión positiva aprobada de NIOSH mí aparato respiratorio contenido y ropa de protección llena. En temperaturas elevadas sobre 54C - 130C, los contenedores expusieron dirigir la llama o el calor debería ser refrescado con el echar agua para prevenir el debilitamiento de la estructura de contenedor.

French: Les récipients devraient être rafraîchis avec l'eau pour prévenir la pression de vapeur l'accumulation. Utilisez l'équipement ou le fait de protéger, comme exigé, protéger le personnel du fait de rompre, le fait de vous faire éclater ou le fait de décharger des récipients. Tirez des bagarreurs et d'autres qui peut être exposé aux produits de combustion devrait être équipé avec la pression positive approuvée de NIOSH moi l'appareil respiratoire contenu et les vêtements de protection complets. Aux températures élevées sur 54C - 130C, les récipients exposés pour diriger la flamme ou la chaleur devraient être rafraîchis avec l'eau pour prévenir l'affaiblissement de structure à conteneurs.

6 ACCIDENTAL RELEASE MEASURES

English: Eliminate all ignition sources (flames, pilot lights, electrical sparks, static charges) and ventilate the area. Contain large spills with dikes to prevent entry to waterways and sanitary sewers and transfer the material to appropriate containers for reclamation or disposal. Absorb/trap remaining material or small spills with inert material (dirt, sand, industrial absorbent) and then place in a chemical waste containers using non-sparking tools. Flush residual spill area with large amounts of water. Dispose of all clean up material in accordance with all applicable federal, state and local health and environmental regulations.
French: Éliminer toutes les sources d'allumage (flammes, flammes d'allumage, étincelles électriques, charges statiques) et ventiler la zone. Contenir les déversements majeurs avec des digues afin d'éviter qu'ils ne pénètrent les voies d'eau et les égouts sanitaires. Transférer les matériaux dans des conteneurs appropriés aux fins de réclamation ou d'élimination. Absorber/cerner les matériaux restants ou les déversements mineurs avec des matériaux inertes (impuretés, sable, absorbant industriel) et les placer ensuite dans des conteneurs pour déchets chimiques en se servant d'outils anti-étincelants Rincer la zone de déversement résiduel à grande quantité d'eau Procéder à la mise au rebut des matériaux de nettoyage conformément à toutes les réglementations sanitaires et environnementales au niveau national, régional et local.
Spanish: Elimine todas las fuentes de ignición (llamas, pilotos, chispas eléctricas, gastos estáticos) y ventile el área. Contenga caídas grandes con diques para prevenir la entrada a canales y alcantarillas sanitarias y transferir el material para asignar contenedores para rescate o disposición. Absorba/atrape material restante o pequeñas caídas con el material inerte (suciedad, arena, absorbente industrial) y luego coloque en unos instrumentos de no chispazo de utilización de contenedores de desecho químicos. Limpie con agua el área de caída residual con cantidades grandes del agua. Elimine todos limpian el material de acuerdo con todo el federal aplicable, salud estatal y local y regulaciones ambientales.

7 HANDLING AND STORAGE

Handling Precautions:

English: Do not puncture or incinerate containers.
Spanish: No pinche o incinere contenedores.
French: Ne crevez pas ou incinérez des récipients.

Storage Requirements: English: Do not store above 120 F.
Spanish: No almacene de 120 F grados.
French: Ne pas conserver à des températures superieures à 120 °F.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: English: Local exhaust recommended.
Spanish: Extractor local está recommendado
French: Évacuation locale recommandée.

Protective Equipment: HMIS PP, E | Goggles, Gloves, Dust Respirator
English: Safety glasses or goggles Dust Mask Rubber, neoprene, vinyl, nitrile, butyl or PVC coated gloves recommended
Spanish: Gafas de seguridad o anteojos están recommendados. Máscara del polvo. El caucho, el neopreno, el vinilo, el nitrile, el butilo o los guantes cubierto con PVC están recommendados.
French: Les verres de sécurité ou le Caoutchouc de Masque de Poussière de lunettes de protection, le néoprène, le vinyle, nitrile, le butyle ou les gants enduits de POLYCHLORURE DE VINYLE recommandés

Exposure Guidelines/Other: English: No available data.
Spanish: No hay nada data.
French:Aucun renseignement

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Fine mist spray		
Physical State:	mist	Boiling Point:	Not available
Odor:	petroleum disillate	Freezing/Melting Pt.:	Not available
pH:	Not applicable	Solubility:	Non-soluble in Water
Vapor Pressure:	150	Spec Grav./Density:	<1 g/mL
Vapor Density:	>1		

VOC: 93.6% (569.0 g/L) (4.7 lbs/gal)

10 STABILITY AND REACTIVITY

Stability: English: Yes
Spanish: sí
French: Oui

Conditions to avoid: Eng: Keep away from ignition sources. Heat, sparks or flames.
Fr: Tenir à l'écart de toute source d'allumage. Chaleur, étincelles ou flammes.
Span: Mantiene a distancia de calor y de fuentes de ignición: la luz del sol directa, calor, las chispas o las llamas.

Materials to avoid (incompatability): English: Oxidizers. Strong acids.
Spanish: Oxidantes. Ácidos fuertes.
French: . Oxydants. Acides puissants.

Hazardous Decomposition products: English: Carbon Monoxide and other hazardous chemicals.
Spanish: Monóxido de carbono y otros productos químicos arriesgados.

French: Oxyde de carbone et d'autres produits chimiques les hasardeux.

Hazardous Polymerization:

English: Will not occur
Spanish: No occurirá
French: Aucun risque

11 TOXICOLOGICAL INFORMATION

English: There is no data available for this product.
Spanish: No hay nada data.
French:Aucun renseignement

12 ECOLOGICAL INFORMATION

English: There is no data available for this product.
Spanish: No hay nada data.
French:Aucun renseignement

13 DISPOSAL CONSIDERATIONS

English: Do not puncture or incinerate containers. Dispose of in accordance with local, state, and federal regulations.
Spanish: No pinche o incinere contenedores. Disponga de acuerdo con las regulaciones locales, estadas y federales.
French: Ne crevez pas ou incinérez des récipients. Conformément à toutes les réglementations locales, régionales et gouvernementales.

14 TRANSPORT INFORMATION

Domestic: ORM-D

International: Aerosols, Class2.1, UN1950, Limity Quantity.

English: Because this is produced and shipped in several different container sizes as well as domestically and internationally, please consult your transportation specialist for the proper shipping name and class.

French: Veuillez consulter votre spécialiste en transport pour le nom et la classe appropriés d'expédition.

Spanish: Por favor, llame a su especialista de transporte para la clase transportiva.

15 REGULATORY INFORMATION

European CHIP Regulation:
Xi
ES: Irritante
EN: Irritant
FR: Irritant

Xn
ES: Nocivo
EN: Harmful
FR: Nocif

R22
ES: Nocivo por ingestión.
EN: Harmful if swallowed.
FR: Nocif par ingestion.

R36/37/38
ES: Irritar a ojos, sistema respiratorio y piel.
EN: Irritating to eyes, respiratory system and skin.
FR: Le fait d'irriter aux yeux, le système respiratoire et la peau.

S1/2
ES: Quédese cerrado y del alcance de niños..
EN: Keep locked up and out of the reach of children.
FR: Gardez mis sous clé et de la portée d'enfants.

S24/25
ES: Evite el contacto con piel y ojos.
EN: Avoid contact with skin and eyes.
FR: Évitez le contact avec la peau et les yeux.

S26
ES: En caso del contacto con ojos, aclare inmediatamente con mucha agua y busque el consejo médico.
EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
FR: En cas du contact avec les yeux, rincez immédiatement avec l'abondance d'eau et cherchez le conseil médical.

S36/37/39
ES: Lleve puesta ropa protectora conveniente, guantes y protección de cara u ojo.
EN: Wear suitable protective clothing, gloves and eye or face protection.
FR: Portez des vêtements protecteurs convenables, des gants et un oeil ou faites face à la protection.

S62
ES: De ser ingerido, no induzca vómitos: busque el consejo médico inmediatamente y muestre este contenedor o etiqueta.
EN: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
FR: Si avalé, n'incitez pas de vomissement : cherchez le conseil médical tout de suite et montrez ce récipient ou étiquette.

*Hexane (110543 30-40%) CERCLA, HAP, MASS, OSHAWAC, PA, SARA313, TXAIR

*Petroleum gases, liquefied (68476857 55-60%) MASS, OSHAWAC, PA, TXAIR

MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TXAIR = TX Air Contaminants with Health Effects Screening Level

CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
NJHS = NJ Right-to-Know Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXHWL = TX Hazardous Waste List

16 OTHER INFORMATION

English: The information contained herein is based on data considered accurate to the best of our knowledge at the date of its publication. However, no warranty is expressed or implied regarding the accuracy, completeness, or adequacy of the information contained herein. The vendor shall not be held liable (regardless of fault) to the vendee or third persons, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.

Spanish: La información en este documento está basada en data que está considerada ser exacta al mejor de nuestro conocimiento en la fecha de publicación. Sin embargo, no hay garantía expresado o implicado con respecto la exactitud, lo completo, o a la suficiencia de la información contenida en este documento. El vendedor no es obligado (sin importar culpa) al comprador o personas terceras, o alguien para unos daños directos, especiales o consecuentes como resulto de o conectado con la exactitud, lo completo, la suficiencia o el equipar de esta
información.

French: Les présentes informations sont basées sur des données jugées exactes. Toutefois, aucune garantie ne peut être formulée expressément ou implicitement quant à l'exactitude de ces données et aucun résultat ne peut être obtenu sur l'utilisation desdites données. Si les consignes de sécurité stipulées dans la fiche signalétique n'ont pas été respectées, le revendeur n'endosse aucune responsabilité quant aux blessures subies par l'acheteur ou une partie tierce infligées suite à l'utilisation des matériaux. En outre, le revendeur n'endosse aucune responsabilité quant aux blessures que l'acheteur ou une partie tierce pourrait subir suite à une utilisation anormale des matériaux et cela même si les consignes de sécurité ont été respectées. La responsabilité des risques inhérents à l'utilisation des matériaux incombe entièrement à l'acheteur.

END OF MSDS DOCUMENT


Mac's
721G
Premium
Starting
Fluid

SAFETY DATA SHEET

1. Identification

Product number	1000028739
Product identifier	**11 OZ NAPA MAC'S PREMIUM STARTING FLUID 7216**
Company information	NAPA Balkamp 2601 S. Holt Road Indianapolis, IN 46241 United States
Company phone	General Assistance 1-317-244-7241
Emergency telephone US	1-866-836-8855
Emergency telephone outside US	1-952-852-4646
Version #	01
Recommended use	Not available.
Recommended restrictions	None known.

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Reproductive toxicity (fertility, the unborn child)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements

Signal word	Danger
Hazard statement	Extremely flammable aerosol. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Diethyl Ether		60-29-7	40 - 60
n-Hexane		110-54-3	10 - 20
Butylated Hydroxytoluene		128-37-0	2.5 - 10
Carbon Dioxide		124-38-9	2.5 - 10
n-Heptane		142-82-5	2.5 - 10
Cyclohexane		110-82-7	0.1 - 1
Toluene		108-88-3	0.1 - 1
Other components below reportable levels			20 - 40

*Designates that a 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. Wash with plenty of soap and water. 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	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. 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. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

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 breathe gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: 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. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. 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. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe gas. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. 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
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m3
		300 ppm
Diethyl Ether (CAS 60-29-7)	PEL	1200 mg/m3
		400 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3
		500 ppm

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

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Butylated Hydroxytoluene (CAS 128-37-0)	TWA	2 mg/m3	Inhalable fraction and vapor.
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Diethyl Ether (CAS 60-29-7)	STEL	500 ppm	
	TWA	400 ppm	
n-Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
Toluene (CAS 108-88-3)	TWA	20 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butylated Hydroxytoluene (CAS 128-37-0)	TWA	10 mg/m3
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm
Cyclohexane (CAS 110-82-7)	TWA	1050 mg/m3
		300 ppm
n-Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3
		440 ppm
	TWA	350 mg/m3
		85 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3
		50 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

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

Exposure guidelines

US - California OELs: Skin designation

n-Hexane (CAS 110-54-3) Can be absorbed through the skin.
Toluene (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

n-Hexane (CAS 110-54-3) 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. 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 appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. 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	Gas.
Form	Aerosol.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	-109.3 °F (-78.5 °C) estimated
Flash point	-19.2 °F (-28.5 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.2 % estimated
Flammability limit - upper (%)	7.1 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	564.8 °F (296 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.375 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	Hazardous polymerization does not occur.

Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects.

Components	Species	Test Results
Butylated Hydroxytoluene (CAS 128-37-0)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
		> 2000 mg/kg, 4 wk (3 x/wk)
Oral		
LD50	Mouse	2000 mg/kg
	Rat	> 2930 mg/kg
Cyclohexane (CAS 110-82-7)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 32880 mg/m3, 4 Hours
		> 5540 ppm, 4 Hours
Oral		
LD50	Rabbit	> 5000 mg/kg
	Rat	> 5000 mg/kg
Diethyl Ether (CAS 60-29-7)		
Acute		
Dermal		
LD50	Rabbit	> 20000 mg/kg, 24 Hours
Inhalation		
LC50	Mouse	31300 ppm, 90 Minutes
	Rat	32000 ppm, 4 Hours
Oral		
LD50	Rat	1200 mg/kg
n-Heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 29.29 mg/l, 4 Hours

Components	Species	Test Results
Oral		
LD50	Rat	> 5000 mg/kg
n-Hexane (CAS 110-54-3)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 4 Hours
		> 5 ml/kg, 4 Hours
Inhalation		
LC50	Rat	> 5000 ppm, 24 Hours
		> 31.86 mg/l
		73860 ppm, 4 Hours
Oral		
LD50	Rat	24 g/kg
		24 ml/kg
	Wistar rat	49 g/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
Inhalation		
LC50	Mouse	6405 - 7436 ppm, 6 Hours
		5320 ppm, 8 Hours
	Rat	5879 - 6281 ppm, 6 Hours
		25.7 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

* 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 or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Butylated Hydroxytoluene (CAS 128-37-0) 3 Not classifiable as to carcinogenicity to humans.
Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

Reproductive toxicity Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Respiratory system. Skin. Central nervous system. Eyes. Peripheral nervous system. May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Butylated Hydroxytoluene (CAS 128-37-0)			
Aquatic			
Algae	IC50	Algae	6 mg/L, 72 Hours
Crustacea	EC50	Water flea (Daphnia pulex)	1.44 mg/l, 48 hours
Cyclohexane (CAS 110-82-7)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	23.03 - 42.07 mg/l, 96 hours
Diethyl Ether (CAS 60-29-7)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2560 mg/l, 96 hours
n-Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Mozambique tilapia (Tilapia mossambica)	375 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Algae	IC50	Algae	433.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	7.645 mg/L, 48 Hours
		Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
Cyclohexane	3.44
Diethyl Ether	0.89
n-Heptane	4.66
n-Hexane	3.9
Toluene	2.73

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

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. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	Yes
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

DOT

IATA; IMDG

Marine pollutant

General information 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.

CERCLA Hazardous Substance List (40 CFR 302.4)

Cyclohexane (CAS 110-82-7)	Listed.
Diethyl Ether (CAS 60-29-7)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
n-Hexane	110-54-3	10 - 20
Cyclohexane	110-82-7	0.1 - 1
Toluene	108-88-3	0.1 - 1

Other federal regulations

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

n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

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

Diethyl Ether (CAS 60-29-7)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Diethyl Ether (CAS 60-29-7)	6584
Toluene (CAS 108-88-3)	6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Diethyl Ether (CAS 60-29-7)	35 %WV
Toluene (CAS 108-88-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Diethyl Ether (CAS 60-29-7)	6584
Toluene (CAS 108-88-3)	594

US state regulations

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

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Butylated Hydroxytoluene (CAS 128-37-0)
Carbon Dioxide (CAS 124-38-9)
Cyclohexane (CAS 110-82-7)
Diethyl Ether (CAS 60-29-7)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

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

Butylated Hydroxytoluene (CAS 128-37-0)
Carbon Dioxide (CAS 124-38-9)
Cyclohexane (CAS 110-82-7)
Diethyl Ether (CAS 60-29-7)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

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

Butylated Hydroxytoluene (CAS 128-37-0)
Carbon Dioxide (CAS 124-38-9)
Cyclohexane (CAS 110-82-7)
Diethyl Ether (CAS 60-29-7)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. Rhode Island RTK

Cyclohexane (CAS 110-82-7)
Diethyl Ether (CAS 60-29-7)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. California Proposition 65

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

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

Toluene (CAS 108-88-3) Listed: January 1, 1991

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 02-10-2016

Version # 01

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.

Revision information Product and Company Identification: Alternate Trade Names


Castle
NEW, ION-ACTIVATED!
THRUST
PENETRATING OIL
HUILE PÉNÉTRANTE
DANGER

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle® Thrust™**

PRODUCT TYPE: Penetrating Oil
PRODUCT CODE: C2005

MANUFACTURED FOR: Castle Products, Inc.
424 St. Paul Street
Rochester, NY 14605
800-876-0222 • FAX 585-325-4514
EMERGENCY 585-275-3232

SECTION 2 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: DANGER: Gases Under Pressure, Flammable, Irritant

POTENTIAL HEALTH EFFECTS:
Eyes: May cause irritation.
Skin: May cause irritation. Prolonged exposure may cause fatting dermatitis.
Inhalation: May cause irritation. Propellant is a simple asphyxiant.
Ingestion: May cause headache, nausea, vomiting, and weakness.
Effects of chronic exposure: Lifetime skin painting tests indicate that materials of similar composition as kerosene may have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PEL	TLV	STEL	%
Petroleum Oil Blend (Mixture)	64742-52-5	5 mg/m3	NE	NE	30-60%
Kerosene (Petroleum)	8008-20-6	5 ppm	NE	NE	10-30%
Propane	74-98-6	1000 ppm	NE	NE	7-15%
Isobutane	75-28-5	1000 ppm	NE	NE	5-10%
Ethyl acetate	141-78-6	400 ppm	NE	NE	1-5%

SECTION 4 FIRST AID MEASURES

First Aid Procedures:
Eye contact: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician if irritation persists.
Skin contact: For skin contact flush with large amounts of water. Call a physician if irritation persists.
Inhalation: Immediately remove from further exposure. Give supplemental oxygen, if breathing is difficult. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by mouth to an unconscious person.

Note to physician: If the product is ingested, treat the affected person symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: 25°F (-4°C) LOWER EXPLOSIVE LIMIT: 2.0% UPPER EXPLOSIVE LIMIT: 10.7%
[Propellant: ≥-141°F (≥-96°C)]
EXTINGUISHING MEDIA: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Appropriate for surrounding fire.
UNUSUAL FIRE & EXPLOSION HAZARDS: None
SPECIAL FIRE FIGHTING PROCEDURES: Water from fogging nozzles may be used to cool closed containers to prevent pressure build-up if exposed to extreme temperatures. As in any fire, wear pressure-demand self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Isolate area. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Ventilate spaces before entering.
Environmental precautions: Prevent further leakage or spillage if safe to do so.
Methods for containment: Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up: Eliminate ignition sources including sources of electrical, static or frictional sparks. Wear appropriate protective equipment and clothing during clean-up.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for disposal.

Large Spills: Dike far ahead of liquid spill for disposal. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid breathing mist. Avoid contact with skin and eyes. Wear suitable protective clothing. Wash hands after handling.
Storage: Keep from freezing. Keep containers tightly closed. Store in a cool, dry place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits: None Established.

Engineering controls: Use local exhaust ventilation.
Personal protective equipment:

General: Eye wash fountain and emergency showers are recommended.
Eye/face Protection: Wear safety glasses or goggles.
Skin Protection: Wear suitable protective clothing. Wear chemical resistant gloves.
Respiratory Protection: When respiratory protection is required, wear a NIOSH/MSHA approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT:	168°F (76°C)	SPECIFIC GRAVITY (H_2O=1):	0.88-0.89 (liquid) 0.75-0.79 (aerosol)
VAPOR PRESSURE:	55-65	PERCENT VOLATILE BY VOL %:	>95%
VAPOR DENSITY (air=1)	>1	EVAPORATION RATE (Butyl Acetate=1):	<1
SOLUBILITY IN WATER:	Negligible	APPEARANCE & ODOR:	Dark amber liquid / characteristic
pH:	NA		

SECTION 10 STABILITY and REACTIVITY DATA

STABILITY: Stable under normal conditions.
INCOMPATIBILITY (material to avoid): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide, Hydrocarbon fumes and smoke where combustion is incomplete.
HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11 TOXICOLOGICAL INFORMATION

Components Test Results: No information available.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

SECTION 12 ECOLOGICAL INFORMATION

Component Test Results: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal instructions: Do not puncture or incinerate containers, even when empty. Dispose according to all applicable Federal, State, and Local regulations.

SECTION 14 TRANSPORT INFORMATION

D.O.T. Classification: Consumer Commodity, ORM-D
T.D.G. Classification: Consumer Commodity (Aerosols, UN1950, Class 2.1)

SECTION 15 REGULATORY INFORMATION

US federal regulations: All components are listed in the United States TSCA Regulations.

CERCLA (Superfund) reportable quantity: None

SARA (Superfund Amendments and Reauthorization Act of 1986):

313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 extremely hazardous substance: No
Section 311 hazardous chemical: No

Canada: This Product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 16 OTHER INFORMATION

Further information: (HMIS® is a registered trade and service mark of the NPCA.)

HMIS® ratings Health: 2
Flammability: 4
Physical hazard: 0

NFPA Code 30B: Level 3

Other: NA-Not Applicable, ND-Not Determined, NE-Not Established.

Disclaimer Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.

PREPARED: 9/25/96 UPDATED: 6/14/13 PRODUCT #: C2005


Powerful Foaming Formula
ARMOR ALL
Extreme
WHEEL & TIRE
CLEANER
Safe on ALL factory and aftermarket coated wheels
Dissolves: – Brake Dust – Road Grime

Safety Data Sheet	The Armor All/STP Products Company 44 Old Ridgebury Road Suite 300 Danbury, CT 06810 Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: ARMOR ALL® Extreme Wheel and Tire Cleaner

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900
Emergency Phone Number:
For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for Outside US and Canada (call collect)
SDS Date Of Preparation: 04/11/2015
Product Use: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

Physical:	Health:
Non-Hazardous	Eye Irritant Category 2A Skin Irritant Category 2

GHS Label Elements:

WARNING!

Statements of Hazard	Precautionary Phrases
Causes serious eye irritation Causes skin irritation.	Wash thoroughly after handling. Wear eye protection, and protective gloves. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Hazards not otherwise specified: None

Percentage of unknown toxicity: Not applicable

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Non-Hazardous Ingredients	Mixture	89 - <100%
Diethylene Glycol Monobutyl Ether	112-34-5	<5%
Lauramidopropylamide Oxide	61792-31-2	<2
Tetrapotassium EDTA	5964-35-2	<2
Myristamidopropylamine Oxide	67806-10-4	<1
Sodium Metasilicate	6834-92-0	<1

The exact concentrations are a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Wash exposed skin with soap and water. If skin irritation or redness develops, seek medical attention.

Eye Contact: Flush eyes with plenty of water for 15 minutes. If irritation or other symptoms persist, seek medical attention.

Ingestion: Do not induce vomiting unless directed to by a doctor. If the victim is fully conscious, have them rinse their mouth with water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Causes eye irritation. Swallowing may cause gastrointestinal disturbances. May cause skin irritation.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is appropriate for the surrounding fire.

Specific Hazards Arising from the Chemical: Completely or mostly evaporated material may be combustible. Combustion may release oxides of carbon and nitrogen, and ammonia.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate protective equipment.

Environmental Precautions: Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Absorb with an inert material. Collect into a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Wash exposed skin with soap and water after use. Keep out of the reach of children.

Conditions for Safe Storage, Including any Incompatibilities: No special storage required.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
Non-Hazardous Ingredients	None Established
Diethylene Glycol Monobutyl Ether	10 ppm TWA ACGIH TLV (Inhalable fraction and vapor)
Lauramidopropylamide Oxide	None Established
Tetrapotassium EDTA	None Established
Myristamidopropylamine Oxide	None Established
Sodium Metasilicate	None Established

Engineering Controls: General ventilation should be adequate for all normal use.

Respiratory Protection: None required under normal use conditions.

Gloves: None normally required. Avoid prolonged skin contact. Impervious gloves such as rubber, neoprene or nitrile can be used if needed to avoid prolonged or repeated skin contact.

Eye Protection: None required for normal use. Avoid eye contact. Safety glasses or goggles are recommended if eye contact is possible.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance and Odor: Clear liquid.

Physical State: Clear liquid.	**Odor Threshold:** Not available
pH: ~13 (Alkali reserve: 0.39 gm NaHO)	**Specific Gravity:** ~1.0

Initial Boiling Point/Range: Not determined	**Vapor Pressure:** Same as water
Melting/Freezing Point: Not determined	**Vapor Density:** Same as water
Solubility In Water: Appreciable	**Percent Volatile:** >85%
Viscosity: Not determined	**Evaporation Rate:** Not determined
Coefficient Of Water/Oil Distribution: Not determined	**VOC Content:** Not determined
Flash Point: Not applicable	**Autoignition Temp:** Not applicable
Decomposition Temperature: Not determined	**Flammability Limits:** LEL: Not applicable UEL: Not applicable
Flammability (solid, gas): Not applicable	

10. Stability and Reactivity

Reactivity: Not normally reactive
Chemical Stability: Stable.
Possibility of Hazardous Reactions: None known
Conditions To Avoid: None known
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Thermal decomposition may release oxides of carbon and nitrogen, and ammonia.

11. Toxicological Information

Acute Hazards:

Inhalation: No adverse effects expected from the normal use of this product.

Skin Contact: May cause irritation.

Eye Contact: Causes eye irritation with redness, tearing and pain.

Ingestion: Swallowing may cause gastrointestinal disturbances.

Chronic Hazards: None currently known.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Diethylene Glycol Monobutyl Ether:	Oral rat LD50: 5660 mg/kg Dermal rabbit LD50 2700 mg/kg
Tetrapotassium EDTA:	Oral rat LD50: >2000 mg/kg (Similar material) Dermal rabbit LD50 >2000 mg/kg (Similar material)
Sodium Metasilicate:	Oral rat LD50: 1153 mg/kg Dermal rat LD50 >5000 mg/kg Inhalation rat LC50 > 2.06 mg/L/4hr.

12. Ecological Information

Ecotoxicity:
Diethylene Glycol Monobutyl Ether: LC50 Lepomis macrochirus (Bluegill sunfish) 1300 mg/L/96 hr.
Sodium Metasilicate: LC50: Brachydanio rerio 210 mg/L/96 hr.

Persistence and Degradability:
Hydrotreated light petroleum distillates: 58.6% in 28 days.

Bio accumulative Potential:
Diethylene Glycol Monobutyl Ether: The potential for bioconcentration in aquatic organisms is low.

Mobility in Soil:
Diethylene Glycol Monobutyl Ether: Is expected to have very high mobility in soil

Other Adverse Effects: No data available.

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Diethylene glycol monobutyl ether (glycol ether compound) @ < 5%.

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

Canada:

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL or the NDSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

NFPA Rating (NFPA 704):	Health: 2	Fire: 0	Instability: 0
HMIS Rating:	Health: 2	Fire: 0	Physical Hazard: 0

REVISION SUMMARY: 04/11/2015: Update to HazCom 2012 GHS format. Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH


ALL SEASON FORMULA
Purple
POWER
SUPERIOR WINDSHIELD WASHER
BLASTS THROUGH
BUGS, DIRT & GRIME!

ZECOL™

Effective Date: May 7, 2012

Product #(s) – 93506, 93555

Material Safety Data Sheet

For Emergency Call:
CHEM-TEL (800) 255-3924 24 Hour Assistance

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Zecol Purple Power Window Wash

CAS Number: 67-56-1
Recommended Uses: Window Wash
Company Identification
Manufacturer's Name: ZECOL PRODUCTS COMPANY
Address: 4635 Willow Drive, Medina, MN 55340
Telephone – General Information: (763) 478-3438

2. HAZARDS IDENTIFICATION

Hazard Classes: Flammable Liquid Category 3
Acute Oral Toxicity Category 3
Acute Dermal (skin) Toxicity Category 3
Acute Inhalation Toxicity Category 3
Toxic to Reproduction Category 1B
Specific Target Organ Toxicity (Single Exposure) Category 1 and Category 3
Aspiration Hazard Category 1
Note: Assigned to classification based on human experience with methanol.

Signal Word: DANGER

Hazard Statements:

H226	Flammable Liquid and Vapor.
H301	Toxic if Swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in Contact with Skin.
H331	Toxic if Inhaled.
H336	May cause drowsiness or dizziness.
H360	May Damage Fertility or the Unborn Child – fetotoxic and teratogenic effects.
H370	Causes Damage to the Optic Nerve causing blindness if ingested.

Precautionary Statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children,
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical lighting and equipment.

P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapors.
P264	Wash 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.
P301 + P310	If SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P330	Rinse mouth.
P303 + P361 + P353	If ON SKIN (or hair): Remove/Take of immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician
P361 + P378	Take off immediately all contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use dry chemical, CO_2, alcohol-resistant foam, and water spray for extinction.
P403 + P235	Store in well-ventilated place. Keep cool.
P501	Disposal: Dispose of contents/container to a specialized waste disposal plant in accordance with local/regional regulations

Hazard Pictograms:

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Typical Weight Percentage	CAS Number
Methanol	35-38%	67-56-1
Water	62-65%	7732-18-5

4. FIRST AID

Eyes: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

Inhalation: If respiratory symptoms develop or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion: Aspiration hazard. Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek immediate medical attention.

Note to Physicians: Ethanol significantly decreases the toxicity of methanol because it competes for the same metabolic enzymes, and has been used to treat methanol poisoning.

Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Medical Conditions: Exposure to high concentrations of this material may increase the sensitivity of the heart to certain drugs. Persons with pre-existing heart disorders may be more susceptible to this effect (see Note to Physician above).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, CO_2, water spray or alcohol-resistant foam. .Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific Hazards: This material is flammable and can be ignited by heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights or mechanical/electrical equipment). Flame is invisible in daylight. Vapors may travel considerable distances to a source of ignition where they can ignite, flashback or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors or in sewers. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than area and can accumulate in low areas.

Hazardous Combustion Products: Toxic gases and vapors; oxides of carbon and formaldehyde.

Special Firefighting Procedures: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Flammable. Spilling of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof equipment is recommended. Stay upwind and away from spill/release. For large spills, notify people down-wind of spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done with minimal risk. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water, notify appropriate authorities. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface water, may require notification of the National Response Center (phone number 800-424-8802).

Methods for Containment and Clean-Up: Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand, earth or other non-combustible material, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g., skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Keep away from ignition sources such as heat/sparks/open flames – No smoking. Take precautionary measures against static discharge. Non-sparking tools should be used. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see Section 8).

Flammable. May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by bonding and grounding containers and equipment before transferring material. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-77 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Use good personal hygiene practice.

Conditions for Safe Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Post area “No Smoking or Open Flame.” Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Methanol	200 ppm (Skin)	250 ppm (Skin)	200 ppm (Skin)	250 ppm (Skin)

Engineering Controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

Specific Personal Protective Equipment

Eye/Face Protection: The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation or injury. Depending on conditions of use, a face shield may be necessary.

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls or encapsulated suits. Suggested protective materials: butyl and nitrile rubbers.

Respiratory Protection: Where there is potential for airborne exposure above the exposure limits, a NIOSH approved air purifying respirator with an organic vapor cartridge may be used.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Air-purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration as directed by regulation or the manufacturer's instructions, in oxygen deficient (less than 19.5% oxygen) situations or under conditions that are immediately dangerous to life and health (IDLH).

Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Other Protective Equipment: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

9. PHYSICAL AND CHEMICAL PROPERTIES (approximate values)

Appearance: Clear, purple liquid
Odor: Mild alcohol
Odor threshold: 4.2-596 ppm
pH: Not applicable
Melting/Freezing Point: -97.8˚C **/** 208˚F
Boiling point (at 1 atm): 64.7˚C / 148 ˚F
Flash Point: 29 ˚C / 85 ˚F (Closed Cup)
Auto-Ignition Temperature: 470 ˚C / 878 ˚F
Evaporation rate (butyl acetate = 1): 4.1
Flammability (solid, gas): Not applicable
Explosive Limits: Lower – 6%/ Upper – 36%
Vapor Pressure: 92 mmHg @ 20 ˚C / 68 ˚F

Vapor Density (air = 1): 1.1 @ 15 ˚C / 59 ˚F
Specific gravity (H_20 = 1): 0.79 @ 20˚C / 68 ˚F
Solubility in water: Soluble
Partition Coefficient: n-octanol/water: Log P = -0.77
Decomposition Temperature: No data
Viscosity: 5.81 x 10^{-7} m^2/s @ 40 ˚C / 104 ˚F

10. STABILITY AND REACTIVITY

Stability (thermal, light, etc.): Stable under normal conditions of storage and handling.

Conditions to Avoid: Avoid all possible sources of ignition (see Sections 5 and 7).

Incompatibility (materials to avoid): Avoid contact with strong acids, bases and oxidizers such as liquid chlorine and oxygen. Contact with these materials may cause a violent or explosive reaction. May be corrosive to lead, aluminum, magnesium and platinum. May react with metallic aluminum or magnesium and generate hydrogen gas. May attack some forms of plastic, rubber and coatings.

Hazardous Decomposition Products: Thermal decomposition may release carbon monoxide, carbon dioxide, and formaldehyde.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Product/Ingredient Name	Result	Species	Dose
Methanol (major ingredient)	LD50 Oral	Rat	≥2528 mg/kg
	LD50 Dermal	Rabbit	17,100 mg/kg
	LC50 Inhalation (vapor)	Rat	13.3 mg/l – 6hr

Note: Assigned to classification based on human experience and not animal data.

Skin Corrosion/Irritation: Causes mild irritation. Repeated exposure may cause dryness or cracking.

Serious Eye Damage/Irritation: Causes mild irritation.

Signs and Symptoms: High concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity, blindness or death.

Skin Sensitization: None reported

Respiratory Sensitization: None reported

Germ Cell Mutagenicity: There is insufficient information available to conclude that methanol is mutagenic.

Carcinogenicity: Methanol did not demonstrate carcinogenic effects in rats and mice treated via whole body inhalation at concentrations ≥ 1.3 mg/l in air. There is insufficient information available to conclude that methanol is carcinogenic. It is not listed by NTP, IARC or OSHA.

Reproductive Toxicity: Methanol has produced fetotoxicity in rats and teratogenicity in mice exposed by inhalation to high concentrations of methanol vapors.

Specific Target Organ Toxicity (Single Exposure): Methanol ingestion causes damage to the optic nerve causing blindness. May cause drowsiness and dizziness.
Specific Target Organ Toxicity (Repeated Exposure): There is insufficient information available to conclude that methanol causes target organ effects from repeated exposure.

Aspiration Hazard: May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Toxicity:

Ingredient Name	Result	Species	Exposure
Methanol (major ingredient)	Acute EC50 = 16.912 mg/L Marine Water Acute LC50 = 2500000 ug/L Marine Water Acute LC50 = 3289 mg/L Fresh Water Acute LC50 > 100000 ug/L Fresh Water	Algae Crustaceans Daphnia Fish	96 hours 48 hours 48 hours 96 hours

Persistence and Degradability: Methanol biodegrades easily in water and soil.
BOD5 = 1.1
COD = 1.05 – 1.55, 99%

Bioaccumulative Potential: Risk of bioaccumulation is low (BCF <500 and low log K_{ow} <4). BCF = 0.2 - <10 Log K_{ow} = -0.77

Mobility in Soil: Methanol is highly mobile. Adsorption coefficient (K_{oc}) solid phase/liquid phase = 1

Other Adverse Effects: None known

13. DISPOSAL CONSIDERATIONS

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

Recycle wherever possible. Large volumes may be suitable for re-distillation or, if contaminated, incinerated. Can be disposed of in a sewage treatment facility.

This material, if discarded as produced, would not be a federally regulated RCRA “listed” hazardous waste. However, it would likely be identified as a federally regulated RCRA hazardous waste for the following characteristic of ignitability (D001). See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

14. TRANSPORT INFORMATION

DOT/TDG Proper Shipping Name: Flammable Liquid n.o.s. (Methanol)
DOT/TDG Identification Number: UN1993

Product #(s) – 93506, 93555

DOT Hazard Class: 3 / **TDG Hazard Class:** 3(6.1)
DOT/TDG Packing Group: II
ERG Guide Number: 131
Marine Pollutant: No

15. REGULATORY INFORMATION

TSCA: Methanol is listed on the TSCA inventory.

DSL: Methanol is listed on the DSL inventory.

OSHA (Occupational Safety and Health Administration): This material is considered to be hazardous as defined by the OSHA Hazard Communication Standard**.**

This material has not been identified as a carcinogen by NTP, IARC or OSHA

CERCLA/SARA – Section 302 Extremely Hazardous Substances and TPQ (in pounds): This material does NOT contain chemicals subject to the reporting requirements of SARA 302 and 40 CFR 355 Appendix A and B.

EPA (CERCLA) Reportable Quantity (in pounds): This material contains the following chemicals subject to the reporting requirements of 40 CFR 302.4:

Component	Concentration	RQ
Methanol	35-38%	5000 lbs

CERCLA/SARA - Sections 311/312 (Title III Hazard Categories):
Acute: Yes Chronic: Yes Fire: Yes Reactivity: No

CERCLA/SARA – Section 313 and 40 CFR 372: This material contains the following chemicals subject to the reporting requirements of SARA 313 and SARA Title III and 40 CFR:

Component	Concentration	de minimis
Methanol	35-38%	1%

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material contains detectable chemicals known to the State of California to cause cancer and/or reproductive toxicity.

Component	Concentration	Effect
Methanol	35-38%	Developmental

Canada:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

WHMIS Hazard Class: B2, D1B, D2A, D2B

16. OTHER INFORMATION

Issue Date: May 3, 2012
Previous Issue Date: January 5, 2010
Change: Updated to new GHS compliant HCS 2012 criteria

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Product #(s) – 93506, 93555

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