



Safety Data Sheet

Prepared according to 29 CFR 1910.1200.
United States.

1. IDENTIFICATION

Product name: Soluble Cutting Oil SC-10™

Other means of identification: SDS No. MP-003

Recommended use and restrictions: General purpose water soluble cutting oil. Restrictions: For use only in dilution with water.

Manufacturer information: Muscle Products Corp.
752 Kilgore Road
Jackson Center, PA 16133
www.mpclubricants.com

Information telephone: 1-814-786-0166 (Muscle Products Corp – normal business hours)

Emergency telephone (24 hr): **INFOTRAC** 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARD(S) IDENTIFICATION

Appearance: Dark amber. **Physical state:** Liquid. **Odor:** Strong.

Classification:	Skin corrosion / irritation	Category 2
	Serious eye damage / irritation	Category 1

Symbol(s):



Signal Word: **Danger.**

Hazard Statement(s): **Causes skin irritation.**
Causes serious eye damage.

Precautionary Statement(s)

Prevention: **Wash hands and any other exposed skin thoroughly after handling.**
Wear protective gloves / eye protection / face protection.

Response: **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.
Immediately call a poison center or doctor for emergency medical advice.

Storage: None.

Disposal: None.

General: Read product label before use.
If medical advice is needed, have container label or SDS on hand.

Hazards not otherwise classified (HNOC)

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.
Frequent or prolonged skin contact may defat and dry the skin leading to discomfort and dermatitis.

Unknown acute toxicity data:

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	3.0 %
Acute toxicity, inhalation	80.8 %

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS number	% by weight
Severely hydrotreated mineral oils consisting of one or more of the following: Distillates (petroleum), hydrotreated heavy naphthenic Distillates (petroleum), hydrotreated light naphthenic Distillates (petroleum), hydrotreated heavy paraffinic	64742-52-5 64742-53-6 64742-54-7	55 - 65 %
Petroleum hydrocarbons	Confidential mixture	5 - 10 %
Potassium tallate	Confidential mixture	5 - 10 %
Carbamodithioic acid	10254-57-6	1 - 5 %
N,N-methylenebismorpholine	5625-90-1	1 - 5 %
Sodium sulfonate	68608-26-4	0.5 - 2 %
Diethylene glycol	111-46-6	0.5 - 2 %
Hexylene glycol	107-41-5	≤ 1 %
Butyl cellosolve	111-76-2	≤ 1 %

If CAS number is "confidential" and/or % by weight is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

- Inhalation:** Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Skin contact:** Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse. Discard leather articles saturated with material.
- Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor for emergency medical advice.
- Ingestion:** Do NOT induce vomiting. If person is conscious, rinse mouth thoroughly with water. If spontaneous vomiting occurs, keep head below hips to avoid breathing product into lungs. Get medical attention if you feel unwell.

Most important symptoms / effects, acute and delayed

- Inhalation:** If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract. High concentrations may cause headaches, dizziness, nausea, vomiting, weakness, drowsiness, stupor, irritability and other behavioral changes. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact:** Prolonged or repeated skin contact as from clothing wet with material may cause irritation and dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
- Eye contact:** Causes serious eye damage.
- Ingestion:** Swallowing may cause irritation of gastrointestinal lining, nausea, vomiting, diarrhea and abdominal pain. Ingestion can cause central nervous system effects, such as headache, dizziness, drowsiness and generalized weakness.

Indication of immediate medical attention and special treatment, if necessary

- Notes to physicians:** Treat symptomatically. 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.

See Section 11 for toxicological information.

5. FIRE-FIGHTING MEASURES**Extinguishing media**

- Suitable media:** Carbon dioxide (CO₂). Dry chemicals. Foam. Water fog.
- Unsuitable media:** Do not use water as a direct jet or high-pressure stream.

Specific hazards arising from the chemical

May decompose if heated above 392°F (200°C) with liberation of hydrogen chloride.

Hazardous combustion products: When heated, hazardous gases may be released including: sulfur dioxide, carbon oxides, and nitrogen oxides. Burning may also produce irritating, toxic and obnoxious fumes. See section 10 for additional information.

Special protective equipment and precautions for fire-fighters

Protective equipment for fire-fighters: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA/NIOSH-approved (or equivalent) and full protective gear.

Precautions for fire-fighters: Take no action involving personal risk or without suitable training. Do not direct a solid stream of water on spilled material as this may scatter or spread fire. Water or foam may cause frothing. Do not release chemically contaminated water into drains, soil or surface water. Water can be used to cool containers exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions: Take no action involving personal risk or without suitable training. Evacuate personnel to safe area. Keep unnecessary and unprotected personnel away. Eliminate all ignition sources if without risk (no smoking, flares, sparks or flames). Avoid contact with skin, eyes and clothing. Do not touch or walk through spilled material. Floors may be slippery. Wear protective clothing / equipment recommended in Section 8. Prevent entry into basements or confined areas. Ensure adequate ventilation, especially in confined spaces.

Environmental precautions: Prevent from entering soil, ditches, sewers, waterways and groundwater. Do not flush into surface water, sanitary sewer or ground water systems. See Section 12 for additional ecological information.

Methods and materials for containment and clean-up

Small spill: Stop leak if without risk. Absorb spill with inert material (i.e. dry sand or earth). Sweep, scoop up or vacuum the discharged material. Seal spent absorbent material in a suitable labeled container for disposal.

Large spill: Stop material flow if without risk. Approach release from upwind. Dike area to prevent spreading. Pump liquid to salvage tank. Remaining liquid may be taken up on dry sand, clay, earth, or other absorbent material and shoveled into containers. Do not use combustible materials, such as saw dust. Seal and label containers for disposal.

See Section 13 for disposal considerations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. Avoid repeated or prolonged skin contact. Wear appropriate personal protective equipment (see Section 8). Avoid breathing mist, vapors or spray. Keep away from ignition sources. Do not eat, drink or smoke when using this product. Wash face, hands and other exposed skin thoroughly with soap and water after handling. Launder contaminated clothing before reuse. Avoid water contamination, incompatible conditions (see Section 10) and extreme temperatures to prevent product degradation. Empty container contains product residue which may exhibit hazards of the product. Do NOT cut, weld, braze, solder, drill or grind on or near empty containers.

Conditions for safe storage, including incompatibilities

Storage conditions: Keep container tightly closed until ready for use. Store in a well ventilated place, protected from sunlight. Store away from heat, sparks and flame. Keep away from food and drink. Do not store in unlabeled or mislabeled containers. Do not reuse containers without proper cleaning or reconditioning. Empty container contains product residue which may exhibit hazards of the product. Store away from incompatible materials. Maximum storage temperature for product preservation: 40°C (104°F).

Incompatible materials: Oxidizing agents. Strong oxidizing agents. Reducing agents. Alkalis. Strong alkalis. Avoid contact with nitrites, nitrates or nitrosating agents due to the potential for nitrosamine formation. See Section 10 for more information.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical name	OSHA PEL	ACGIH TLV	NIOSH REL
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Mineral oils as Oil Mist, if generated	TWA: 5 mg/m ³ (mist)	TWA: 5 mg/m ³ (inhalable fraction)	TWA: 5 mg/m ³ (mist) STEL: 10 mg/m ³ (mist)
Butyl cellosolve 111-76-2	TWA: 240 mg/m ³ TWA: 50 ppm	TWA: 20 ppm	TWA: 24 mg/m ³ TWA: 5 ppm IDLH: 700 ppm
Hexylene glycol 107-41-5	TWA: 125 mg/m ³ [ceiling] 50 ppm	[ceiling] 25 ppm	TWA: 24 mg/m ³ [ceil_time] 25 ppm

Components with biological occupational exposure limits:

Component	Parameter	Medium	Sampling Time	Permissible Concentration	Basis
Butyl cellosolve 111-76-2	Butoxyacetic acid with hydrolysis	Urine	End of shift	200 mg/g creatinine	ACGIH TLV BEI

Appropriate engineering controls:

If use generates mist or vapor, mechanical ventilation or local exhaust ventilation may be required. Adequate ventilation should be provided so that exposure limits are not exceeded. 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. Eyewash stations. Safety showers.

Individual protection measures, such as personal protective equipment

Eye / face protection:	Safety glasses with side shields. If potential for splash or mist exists, wear tight-fitting chemical goggles or face shield.
Skin / body protection:	Nitrile or butyl rubber gloves. Wear coveralls, apron and / or boots as necessary if there is a risk of exposure to splashes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.
Respiratory protection:	Not usually necessary under conditions of normal use. If product is heated or misted, use respirator with a combination organic vapor and dust/mist cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.
Work area and hygiene measures:	Observe good industrial hygiene practices. Do not get this material in eyes or in contact with skin. Do not eat, drink or smoke when using product. Wash contaminated clothing before reuse. Discard leather articles saturated with product. Wash face, hands and any other exposed skin immediately after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Typical Property</u>	<u>Value</u>	<u>Remarks • Method</u>
Appearance, physical state:	Dark amber liquid.	
Odor:	Strong.	
Odor threshold:	Not determined.	
pH:	9.0	ASTM D-1287
Melting / freezing point:	Not determined.	
Initial boiling point / range:	> 125°C (257°F)	ASTM D-1120
Flash point:	> 152°C (305.6°F)	ASTM D-93
Evaporation rate:	Not determined.	
Flammability (solid, gas):	Not applicable (liquid).	
Upper / lower flammability or explosive limits:	Upper: Not determined. Lower: Not determined.	
Vapor pressure:	Not determined.	
Vapor density:	Not determined.	
Specific gravity:	0.9383	@ 60°F ASTM D-1298
Density:	0.9378	g/cm ³ @ 15°C ASTM D-1298
Solubility(ies):	Dispersible in water.	
Partition coefficient: n-octanol/ water	Not determined.	See Section 12 for available component data.
Auto-ignition temperature:	Not determined.	
Decomposition temperature:	Not determined.	

Viscosity, kinematic:	40.09	cSt @ 40°C ASTM D-445
	6.39	cSt @ 100°C

10. STABILITY AND REACTIVITY

Reactivity:	Not reactive under normal conditions.
Chemical stability:	Stable under normal storage conditions.
Possibility of hazardous reactions:	None under normal conditions of use and storage.
Conditions to avoid:	Direct sunlight, excessive heat, flames, sparks. Strong oxidizing conditions. Incompatible materials.
Incompatible materials:	Oxidizing agents. Strong oxidizing agents. Reducing agents. Alkalis. Strong alkalis. Avoid contact with nitrites, nitrates or nitrosating agents due to the potential for nitrosamine formation.
Hazardous decomposition products:	Thermal decomposition or combustion may generate smoke, irritating vapors, carbon monoxide, carbon dioxide, potassium oxides, potassium-containing compounds, aldehydes, nitrogen oxide and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. Formaldehyde vapor may also be released. Under combustion conditions, oxides of phosphorus, sulfur and zinc may form. Prolonged heating at temperatures in excess of 70°C (158°F), OR heating above 200°C (392°F) for short periods of time, may result in product decomposition and possible liberation of hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	May be harmful if inhaled.
Ingestion:	May be harmful if swallowed.
Skin contact:	Causes skin irritation.
Eye contact:	Causes serious eye damage.

Acute toxicity and potential immediate effects

Oral:	Product: ATEmix LD50 > 2500 mg/kg, rat. Ingestion can cause central nervous system effects such as headache, dizziness, drowsiness and generalized weakness. Ingestion may cause red blood cell hemolysis and possible liver and kidney injury. Swallowing can cause irritation to mouth, esophagus and stomach, nausea, vomiting and diarrhea.
Distillates (petroleum):	LD50 > 5000 mg/kg, rat.
Petroleum hydrocarbons:	LD50 > 11,700 mg/kg, rat.
Carbamodithioic acid:	LD50 16,000 mg/kg, rat.
N, N-methylenebismorpholine:	LD50 > 500 – 2000 mg/kg, rat.
Diethylene glycol:	LD50 12565 mg/kg, rat. The oral toxicity of Diethylene glycol is expected to be moderate in humans even though tests with animals show a lower degree of toxicity.
Hexylene glycol:	LD50 3700 mg/kg, rat.
Butyl cellosolve:	LD50 470 mg/kg, rat.
Dermal:	Product: ATEmix LD50 > 2400 mg/kg, rabbit.
Distillates (petroleum):	LD50 > 2000-5000 mg/kg, rabbit.
Petroleum hydrocarbons:	LD50 > 13,900 mg/kg, rabbit.
Carbamodithioic acid:	LD50 > 2000 mg/kg, rabbit.
Diethylene glycol:	LD50 11,890 mg/kg, rabbit.
Hexylene glycol:	LD50 8.56 mL/kg, rabbit.
Butyl cellosolve:	LD50 220 mg/kg, rabbit.
Inhalation:	Product: May be harmful if inhaled. However, does not meet criteria for classification. High concentrations may cause headaches, dizziness, nausea, vomiting, irritability and other behavioral changes, weakness, drowsiness and stupor.
Carbamodithioic acid:	LD50 > 2000 mg/kg, rabbit. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
N, N-methylenebismorpholine:	ATEmix 2-5 mg/L, 4 h. Dusts, mists and fumes.

Hexylene glycol:	LC50 > 310 mg/m ³ , 1 h, rat.
Butyl cellosolve:	LC50 450 ppm, 4 h, rat.
Skin corrosion / irritation:	Causes skin irritation.
Carbamodithioic acid:	Non irritating to skin, rabbit.
N, N-methylenebismorpholine:	Corrosive, rabbit. Causes skin burns.
Serious eye damage / irritation:	Causes serious eye damage.
Distillates (petroleum):	Non irritating, rabbit.
Petroleum hydrocarbons:	Non irritating, rabbit.
Carbamodithioic acid:	Non irritating, rabbit.
N, N-methylenebismorpholine:	Corrosive, rabbit. Causes serious eye damage.
Sodium sulfonate:	Risk of serious damage to eyes, rabbit.
Diethylene glycol:	Non irritating, rabbit.
Hexylene glycol:	Strongly irritating, rabbit.
Butyl cellosolve:	Strongly irritating, rabbit.
Sensitization, respiratory:	No data available.
Sensitization, skin:	Product: Does not meet classification criteria. Contains hexylene glycol which has been reported to cause dermatitis in sensitive individuals.
Distillates (petroleum):	Not a skin sensitizer.
Petroleum hydrocarbons:	Not a skin sensitizer.
Carbamodithioic acid:	Not a skin sensitizer.
N, N-methylenebismorpholine:	Not a skin sensitizer.
Hexylene glycol:	Reported to cause dermatitis in sensitive individuals.
Butyl cellosolve:	Not a skin sensitizer.
<u>Potential chronic effects</u>	
Carcinogenicity:	No data on product.
Distillates (petroleum):	Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.
Petroleum hydrocarbons:	Studies in animals have shown that repeated doses do not produce carcinogenic effects: NOAEL (mouse). 2 Year(s): > 5000 mg/kg bw/day. NOAEL (rat) 2 Year(s): > 3750 mg/kg bw/day.
N, N-methylenebismorpholine:	Equivocal tumorigenic agent by RTECS criteria based on studies in the rat.
Butyl cellosolve:	A National Toxicology Program (NTP) chronic inhalation study revealed some evidence of carcinogenic activity in male and female mice, equivocal evidence in female rats, and no evidence in male rats.
NTP:	No components identified.
IARC Monographs:	No components identified.
OSHA:	No components identified.
Germ cell mutagenicity:	No data on product.
Petroleum hydrocarbons:	Not mutagenic to bacteria or in in-vivo mouse bone marrow micronucleus assays.
Carbamodithioic acid:	Not mutagenic. Tests OECD 471, 473, 476.
Butyl cellosolve:	This material has not exhibited mutagenic or genotoxic potential in laboratory tests.
Reproductive toxicity:	No data on product.
Petroleum hydrocarbons:	Studies in animals have shown that doses produce no teratogenic effects. No effects in conventional development toxicity studies with doses up to 5000 mg/kg/day (rat) and 2000 mg/kg/day (rabbit). NOAEL (rat): 5000 mg/kg bw/day. NOAEL (rabbit): 2000 mg/kg bw/day.
Carbamodithioic acid:	Oral: 1000 ppm NOAEL, adult rat. Oral: > 20,000 ppm NOAEL, Offspring, rat.
Butyl cellosolve:	Butyl cellosolve caused fetotoxicity in lab animals at doses which are maternally toxic.
<u>Specific target organ toxicity (STOT)</u>	
Single exposure (SE):	
N, N-methylenebismorpholine:	May cause irritation to mucous membranes and upper respiratory tract.
Sodium sulfonate:	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.
Hexylene glycol:	May cause irritation to the mucous membranes and upper respiratory tract.
Butyl cellosolve:	Nose, throat and lung irritant.

Repeated exposure (RE):

Distillates (petroleum):	Prolonged or repeated contact may cause drying, cracking or irritation of the skin.
Petroleum hydrocarbons:	Repeated exposure to high levels may produce adverse effects on the liver and kidneys. NOEL (rat) (13 weeks): > 3,750 mg/kg bw/day. Slight effects on the liver were seen at higher doses.
Carbamodithioic acid:	Oral: 1000 ppm NOAEL, sub-acute, rat.
Diethylene glycol:	Prolonged and repeated exposure may cause severe kidney, liver and gastrointestinal effects.
Butyl cellosolve:	Repeated overexposure may result in liver and kidney damage. Target organ(s): Blood.

Aspiration hazard

Product: Does not meet classification criteria.

See Section 4 for information on symptoms and effects.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Product: No data available.

Freshwater fish:

Distillates (petroleum):	96 hr LC50 Oncorhynchus mykiss (rainbow trout): > 5000 mg/L
Petroleum hydrocarbons:	96 hr LC50 Oncorhynchus mykiss (rainbow trout): > 770 mg/L 60 d LC50 Oncorhynchus mykiss (rainbow trout): > 4 mg/L 96 hr LC50 L. macrochirus (bluegill sunfish): > 300 mg/L 96 hr LC50 Alburnus alburnus (bleak): > 5000 mg/L
Carbamodithioic acid:	96 hr LC50: > 0.06 mg/l 96 hr NOEC: 0.06 mg/l
N, N-methylenebismorpholine:	4 d LC 50 Rainbow trout: > 100 mg/l
Diethylene glycol:	4 d LC50 Fathead minnow: > 10,000 mg/l
Hexylene glycol:	4 d LC50 Fathead minnow: > 5,000 mg/l
Butyl cellosolve:	4 d LC50 Bluegill sunfish: 1,490 mg/l 4 d LC 50 Rainbow trout: 1,471 mg/l 21 d LC50 Zebra fish: > 100 mg/l 21 d NOEC Zebra fish: > 100 mg/l

Aquatic invertebrates:

Distillates (petroleum):	48 hr EC50 Water flea (Daphnia magna): > 10,000 mg/l 21 d EC50 Water flea (Daphnia magna): > 10 mg/l 21 d NOEC Water flea (Daphnia magna): 10 mg/l
Petroleum hydrocarbons:	48 hr LC50 Daphnia magna (water flea): > 5.1 mg/L 21 d NOEC: 55 µg/L
Potassium tallate	48 hr EC50 Water flea (Daphnia magna): 2.4 mg/l
Carbamodithioic acid:	48 hr EC50 Daphnia magna (water flea): > 0.052 mg/l 48 hr NOEC Daphnia magna (water flea): 0.052 mg/l 21 d Chronic NOEC Daphnia magna (water flea): 0.247 mg/l
N, N-methylenebismorpholine:	24 hr EC50 Water flea (Daphnia magna): 71 mg/l 48 hr EC50 Water flea (Daphnia magna): 24 mg/l 21 d EC50 Water flea (Daphnia magna): 16.4 mg/l 21 d NOEC Water flea (Daphnia magna): 5 mg/l
Diethylene glycol:	48 hr EC50 Water flea (Daphnia magna): > 10,000 mg/l
Hexylene glycol:	48 hr EC50 Water flea (Daphnia magna): > 2,000 mg/l
Butyl cellosolve:	48 hr EC50 Water flea (Daphnia magna): 1,550 mg/l 21 d EC50 Water flea (Daphnia magna): 297 mg/l 21 d NOEC Water flea (Daphnia magna): 100 mg/l

Aquatic plants:

Carbamodithioic acid:	72 hr EC50: > 0.243 mg/l 72 hr NOEC: > 0.243 mg/l
N, N-methylenebismorpholine:	3 d EC50: 4.4 mg/l
Butyl cellosolve:	3 d EC50 Green algae (Selenastrum capricornutum): 911 mg/l 7 d EC50 Green algae (Selenastrum capricornutum): > 1,000 mg/l 3 d NOEC Green algae (Selenastrum capricornutum): 88 mg/l

Microorganisms:

Carbamodithioic acid:	3 Hr EC50: > 1000 mg/l 3 Hr NOEC: > 1000 mg/l
N, N-methylenebismorpholine:	0.1 d EC50 sludge: 340 mg/l
Hexylene glycol:	0.1 d EC50 Bacteria: > 100 mg/l
Butyl cellosolve:	0.1 d EC50 sludge: > 1,000 mg/l

Persistence and degradability

Distillates (petroleum):	31 %, 28 d – Not readily.
Petroleum hydrocarbons:	No data available. Expected to be partially biodegradable. There is evidence of partial hydrolysis in water. There is evidence of slow degradation in soil and water.
Carbamodithioic acid:	21%, 28 d – Not readily.
N, N-methylenebismorpholine:	93 %, 28 d – Readily biodegradable.
Diethylene glycol:	82 %, 28 d – Readily degradable. 90 %, 28 d – Readily biodegradable.
Hexylene glycol:	95 %, 28 d – Readily biodegradable.
Butyl cellosolve:	100 %, 28 d – Readily biodegradable. 95 %, 28 d – Readily biodegradable. 90.4 %, 28 d – Readily biodegradable.

Bioaccumulative potential

Carbamodithioic acid:	BCF 6.022. Log P _{OW} : 8.42.
N, N-methylenebismorpholine:	Log K _{OW} : 0.3
Diethylene glycol:	Log K _{OW} : -1.95
Hexylene glycol:	Log K _{OW} : 0.58
Butyl cellosolve:	Log K _{OW} : 0.81

Bioconcentration Factor, Partition Coefficient n-octanol/water:**Mobility**

Not determined.

Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS

Method of disposal:	Disposal should be in accordance with applicable regional, national and local laws and regulations and material characteristics at the time of disposal.
Contaminated packaging:	Disposal should be in accordance with applicable regional, national and local laws and regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

NOTE: Transport information may vary depending on mode, size of packagings and destination and is the responsibility of the shipper to follow applicable laws and regulations. Please see current shipping papers for most up to date shipping information.

U.S. DOT

UN number:	Not regulated.		
Proper shipping name:	Lubricant oil.		
Transport hazard class(es):	Not applicable.		
Packing group:	Not applicable.	Label code(s):	Not applicable.
Quantity limitations:	Passenger aircraft / rail:	Not applicable.	
	Cargo aircraft only:	Not applicable.	
	Limited Quantity:	Not applicable.	
Environmental hazards:	None.		
Marine Pollutant:	No.		

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk (Annex II of MARPOL73/78 and IBC Code)

Not determined.

15. REGULATORY INFORMATION**Global Inventories**

Ingredient	U.S.TSCA	AICS	DSL	EINECS	ENCS	IECSC	KECL	NZioC	PICCS	SWISS	TCSI
Distillates (petroleum)	X	X	X	X		X	X	X	X		
Petroleum hydrocarbons	X	X	X	X	X	X	X	X	X		X
Potassium tallate	X	X	X	X	X	X	X	X	X	X	X
Carbamodithioic acid	X	X	X	X	X	X	X	X	X		
N, N-methylenebismorpholine	X	X		X	X	X	X	X			X
Sodium sulfonate	X	X	X	X	X	X	X	X	X	X	X
Diethylene glycol	X	X	X	X	X	X	X	X	X	X	X
Hexylene glycol	X	X	X	X	X	X	X	X	X	X	X
Butyl cellosolve	X	X	X	X	X	X	X	X	X		X

U.S. Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): None present or not present in regulated quantities.

CERCLA Hazardous Substance List , RQ (40 CFR 302.4): None present or not present in regulated quantities.

SARA 302 Extremely Hazardous Substance: None found.

SARA 311/312 Hazard Categories:

Immediate (acute) health hazards:	Yes
Delayed (chronic) health hazards:	Yes
Fire hazard:	Yes
Sudden release of pressure hazard:	No
Reactive hazard:	No

SARA 313 (TRI reporting): None found.

U.S. State Regulations

California Proposition 65: This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm: Formaldehyde 5.00PPM

Massachusetts Right-to-Know List: Mineral oil, petroleum distillates, hydrotreated light naphthenic, 64742-53-6
2-Butoxyethanol, 111-76-2
Hexylene glycol, 107-41-5

New Jersey Right-to-Know Hazardous Substance List: 2-Butoxyethanol, 111-76-2
Hexylene glycol, 107-41-5

Pennsylvania RTK List: Ethanol, 2,2'oxybis, 111-46-6
Ethanol, 2-butoxy-, 111-76-2
2,4-Pentandiol, 2-methyl, 107-41-5

16. OTHER INFORMATION

HMIS:	Health	Flammability	Physical Hazards	Personal Protection
	2 *	1	1	Not determined. ‡

* Chronic health hazard.

‡ PPE codes should be determined by the employer, who is familiar with the actual conditions under which the material is used. See Section 8 for more information.

NFPA:	Health	Flammability	Instability	Special Hazards
	2	1	0	-

Revision history

Revision date: August 18, 2015
Supersedes previous issue: June 25, 2014
Version: 1.0
Revision information: New format.

Legend

ACGIH American Conference of Governmental Industrial Hygienists
AICS Australian Inventory of Chemical Substances

BCF Bioconcentration Factor
BEI Biological Exposure Indices

CAS	Chemical Abstracts Service	NFPA	National Fire Protection Association
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	NIOSH	National Institute for Occupational Safety & Health
DSL	Canada Domestic Substances List	NOAEL	No Observed Adverse Effect Level
EC₅₀	Effective concentration to 50% of test organisms	NTP	National Toxicology Program
EINECS	European Inventory of Existing Commercial Chemical Substances	OSHA	Occupational Health and Safety Administration
ENCS	Inventory of Existing and New Chemical Substances (Japan)	PEL	Permissible Exposure Limit
HMIS	Hazardous Material Information System	PICCS	Philippines Inventory of Chemicals and Chemical Substances
IARC	International Agency for Research on Cancer	RQ	Reportable Quantity
IATA	International Air Transport Association	SARA	U.S. EPA Superfund Amendments and Reauthorization Act
IECSC	Inventory of Existing Chemical Substances in China	STEL	Short-Term Exposure Limit
IMDG	International Maritime Dangerous Goods Code	SWISS	Switzerland Inventory of Notified New Substances
KECL/ECL	Korean Existing and Evaluated Chemical Substances	TLV	Threshold Limit Value
LC₅₀	Lethal concentration to 50% of test organisms	TPQ	Threshold Planning Quantity
LD₅₀	Lethal dose to 50% of test organisms	TSCA	U.S. Toxic Substances Control Act
LOAEL	Lowest Observed Adverse Effect Level	TSCI	Taiwan Chemical Substance Inventory
NZioC	New Zealand Inventory of Chemicals	TWA	Time-Weighted Average
		VOC	Volatile Organic Compound

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 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 material(s) or in any process, unless specified in the text.

- END SAFETY DATA SHEET -