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.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion / irritation</td>
<td>2</td>
</tr>
<tr>
<td>Serious eye damage / irritation</td>
<td>1</td>
</tr>
</tbody>
</table>

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

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

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.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble Cutting Oil SC-10™</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Typical Property

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance, physical state</td>
<td>Dark amber liquid.</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Strong</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>9.0</td>
<td>ASTM D-1287</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point / range</td>
<td>&gt; 125°C (257°F)</td>
<td>ASTM D-1120</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 152°C (305.6°F)</td>
<td>ASTM D-93</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable (liquid)</td>
<td></td>
</tr>
<tr>
<td>Upper / lower flammability or explosive limits</td>
<td>Upper: Not determined. Lower: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.9383 @ 60°F</td>
<td>ASTM D-1298</td>
</tr>
<tr>
<td>Density</td>
<td>0.9378 g/cm³ @ 15°C</td>
<td>ASTM D-1298</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Dispersible in water.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/ water</td>
<td>Not determined.</td>
<td>See Section 12 for available component data.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined.</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
<td></td>
</tr>
</tbody>
</table>

### Components with biological occupational exposure limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameter</th>
<th>Medium</th>
<th>Sampling Time</th>
<th>Permissible Concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve 111-76-2</td>
<td>Butoxyacetic acid with hydrolysis</td>
<td>Urine</td>
<td>End of shift</td>
<td>200 mg/g creatinine</td>
<td>ACGIH TLV BEI</td>
</tr>
</tbody>
</table>

**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
Viscosity, kinematic:

<table>
<thead>
<tr>
<th>Viscosity, kinematic:</th>
<th>40.09 cSt @ 40°C</th>
<th>ASTM D-445</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.39 cSt @100°C</td>
<td></td>
</tr>
</tbody>
</table>

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.


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: 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: \( \text{LC} \text{50} > 310 \text{ mg/m}^3, 1 \text{ h, rat.} \)
Butyl cellosolve: \( \text{LC} \text{50} 450 \text{ ppm, 4 h, rat.} \)

**Skin corrosion / irritation:**
- Causes skin irritation.
- Non irritating to skin, rabbit.
- Corrosive, rabbit. Causes skin burns.

**Serious eye damage / irritation:**
- Causes serious eye damage.
- Non irritating, rabbit.
- Corrosive, rabbit. Causes skin burns.
- Strongly irritating, rabbit.
- Strongly irritating, rabbit.

**Sensitization, respiratory:**
- No data available.
- Not a skin sensitizer.
- Not a skin sensitizer.
- Not a skin sensitizer.
- Reported to cause dermatitis is sensitive individuals.
- Not a skin sensitizer.

**Potential chronic effects**

**Carcinogenicity:**
- Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.
- 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.
- Equivocal tumorigenic agent by RTECS criteria based on studies in the rat.
- 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.
- No components identified.
- No components identified.
- No components identified.
- No data on product.
- No mutagenic to bacteria or in in-vivo mouse bone marrow micronucleus assays.

**Germ cell mutagenicity:**
- This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

**Reproductive toxicity:**
- No data on product.
- 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.
- Butyl cellosolve caused fetotoxicity in lab animals at doses which are maternally toxic.

**Specific target organ toxicity (STOT)**

**Single exposure (SE):**
- May cause irritation to mucous membranes and upper respiratory tract.
- May cause irritation to the mucous membranes and upper respiratory tract.
- 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
48 hr 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: 1.1 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.
- Diethylene glycol: 82 %, 28 d – Readily degradable.
- Hexylene glycol: 95 %, 28 d – Readily biodegradable.
- Butyl cellosolve: 100 %, 28 d – Readily biodegradable.

Bioaccumulative potential

Bioconcentration Factor, Partition Coefficient n-octanol/water:
- N, N-methylenebismorpholine: Log K<sub>OW</sub>: 0.3
- Diethylene glycol: Log K<sub>OW</sub>: -1.95
- Hexylene glycol: Log K<sub>OW</sub>: 0.58
- Butyl cellosolve: Log K<sub>OW</sub>: 0.81

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.
- Quantity limitations: 
  - Passenger aircraft / rail: Not applicable.
  - Cargo aircraft only: Not applicable.
  - Limited Quantity: Not applicable.
- Label code(s): 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.
Global Inventories

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>U.S.TSCA</th>
<th>AICS</th>
<th>DSL</th>
<th>EINECS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>NZIoC</th>
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<tbody>
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<td>X</td>
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<td>Butyl cellosolve</td>
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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:** Immediate (acute) health hazards: Yes

**SARA 311/312 Hazard Categories:**
- 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-Pentanediol, 2-methyl, 107-41-5

16. OTHER INFORMATION

**HMIS:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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<tr>
<td>2 *</td>
<td>1</td>
<td>1</td>
<td>Not determined. ‡</td>
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* 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:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
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Revision history

**Revision date:** August 18, 2015

**Supersedes previous issue:** June 25, 2014

**Version:** 1.0

**Revision information:** New format.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
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<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation and Liability Act</td>
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<tr>
<td>DSL</td>
<td>Canada Domestic Substances List</td>
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<tr>
<td>EC50</td>
<td>Effective concentration to 50% of test organisms</td>
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<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
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<tr>
<td>ENCS</td>
<td>Inventory of Existing and New Chemical Substances (Japan)</td>
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<td>HMIS</td>
<td>Hazardous Material Information System</td>
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<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<td>IATA</td>
<td>International Air Transport Association</td>
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<td>International Maritime Dangerous Goods Code</td>
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<td>Korean Existing and Evaluated Chemical Substances</td>
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<td>LC50</td>
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<td>LD50</td>
<td>Lethal dose to 50% of test organisms</td>
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<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
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<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<td>National Fire Protection Association</td>
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<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
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<td>NOAEL</td>
<td>No Observed Adverse Effect Level</td>
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<td>OSHA</td>
<td>Occupational Health and Safety Administration</td>
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<td>Permissible Exposure Limit</td>
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<td>Philippines Inventory of Chemicals and Chemical Substances</td>
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<td>RQ</td>
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<td>SARA</td>
<td>U.S. EPA Superfund Amendments and Reauthorization Act</td>
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<td>Short-Term Exposure Limit</td>
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**Disclaimer**

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- END SAFETY DATA SHEET -