

Safety Data Sheet

LUBRIBOR®

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking
1.1 Product identifier

Product Name • LubriBOR®

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

Relevant identified use(s) • Corrosion inhibitor

1.3 Details of the supplier of the safety data sheet

Manufacturer • Hammonds Fuel Additives, Inc.

6951 W Little York Rd
Houston, TX 77040
United States
www.biobor.com
sales@biobor.com

Telephone (General) • (800) 548-9166

1.4 Emergency telephone number

Manufacturer • Chemtrec - US - (800) 424-9300

Manufacturer • 001-703-527-3887 - Chemtrec INT

Section 2: Hazards Identification
EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Carcinogenicity 2 - H351
Hazardous to the aquatic environment Chronic 2 - H411

DSD/DPD • Harmful (Xn)
Carcinogenic Substances - Category 3
Dangerous to the Environment (N)
R40, R51, R53

2.2 Label Elements

CLP

WARNING

Hazard statements • H351 - Suspected of causing cancer.
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention • P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.
 P273 - Avoid release to the environment.
 P281 - Use personal protective equipment as required.

Response • P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P391 - Collect spillage.

Storage/Disposal • P405 - Store locked up.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases • R40 - Limited evidence of a carcinogenic effect.
 R51 - Toxic to aquatic organisms.
 R53 - May cause long-term adverse effects in the aquatic environment.

Safety phrases • S36 - Wear suitable protective clothing.
 S37 - Wear suitable gloves.
 S53 - Avoid exposure - obtain special instructions before use.
 S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD • This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Flammable Liquids 4
- Skin Irritation 2
- Germ Cell Mutagenicity 2
- Carcinogenicity 2
- Reproductive Toxicity 2
- Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements • Combustible liquid
 Causes skin irritation
 Suspected of causing genetic defects.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 Do not breathe mists, vapours, and/or spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • In case of fire: Use appropriate media for extinction.
 If on skin: Wash with plenty of water .
 Take off contaminated clothing and wash before reuse.
 Specific treatment, see supplemental first aid information.
 If skin irritation occurs: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.

- Storage/Disposal** • Store in a well-ventilated place. Keep cool.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Combustible Liquids - B3
 Toxic - D1B
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Combustible Liquids - B3
 Toxic - D1B
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

| Composition | | | | | |
|---------------|----------------------|-----|--|---|----------|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive | Comments |
| | CAS:64742-94-5 EC | 30% | Inhalation-Rat LC50 • >590 mg/m ³ 4 Hour | EU DSD/DPD: Not Classified | |

| | | | | | |
|------------------------|---|----------------|--|--|-----|
| Solvent naphtha | Number: 265-198-5 EU Index: 649-424-00-3 | TO 60% | (s) Skin-Rabbit LD50 • >2 mL/kg | EU CLP: Not Classified OSHA HCS 2012: Not Classified | NDA |
| Naphthalene | CAS: 91-20-3 EC Number: 202-049-5 EU Index: 601-052-00-2 | 1% TO 5% | Skin-Rabbit LD50 • >20 g/kg Ingestion/Oral-Rat LD50 • 490 mg/kg | EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 3, R40; Xn, R22; N, R50, R53 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4 *, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Flam. Sol. 2; Acute Tox. 4 (orl); Skin Irrit. 2; Muta. 2; Carc. 2; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (Blood, Eyes; Or, Inhl) | NDA |
| 1,2,4-Trimethylbenzene | CAS: 95-63-6 EC Number: 202-436-9 EU Index: 601-043-00-3 | 1% TO 5% | Ingestion/Oral-Rat LD50 • 5 g/kg Inhalation-Rat LC50 • 18000 mg/m ³ 4 Hour (s) | EU DSD/DPD: Annex VI, Table 3.2: R10; Xn, R20; Xi, R36/37/38; N, R51, R53 EU CLP: Annex VI, Table 3.1: Flam. Liq. 3, H226; Acute Tox. 4 *, H332; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Narc; STOT SE 3: Resp. Irrit. (inhl); Asp. Tox. 1 | NDA |

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention if symptoms occur.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Rinse mouth. Drink 2 - 4 cupfuls of water. Do not give anything by mouth to an unconscious person. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media

- Do not use straight water stream.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Containers may explode when heated.
Vapor explosion hazard indoors, outdoors or in sewers.

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- Hazardous decomposition products are oxides of carbon and nitrogen including CO and CO₂.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk.
- LARGE FIRES:** Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. **LARGE SPILL:** Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. **LARGE SPILLS:** Dike far ahead of liquid spill for later disposal. **LARGE SPILLS:** Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Avoid contact with heat and ignition sources. Do not use sparking tools. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Empty containers may contain residual product. Do not reuse container

unless properly reconditioned.

7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources. Protect from direct sunlight.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

| Exposure Limits/Guidelines | | | | |
|---|--------|-----------------|--|--------------------------------------|
| | Result | ACGIH | NIOSH | OSHA |
| Naphthalene (91-20-3) | TWAs | 10 ppm TWA | 10 ppm TWA; 50 mg/m ³ TWA | 10 ppm TWA; 50 mg/m ³ TWA |
| | STELs | Not established | 15 ppm STEL; 75 mg/m ³ STEL | Not established |
| 1,2,4- Trimethylbenzene (95-63-6) | TWAs | Not established | 25 ppm TWA; 125 mg/m ³ TWA | Not established |

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation 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. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

| Material Description | | | |
|----------------------|--------------|------------------------------|--|
| Physical Form | Liquid | Appearance/Description | Dark amber liquid with hydrocarbon odor. |
| Color | Dark amber. | Odor | Hydrocarbon |
| Odor Threshold | Data lacking | | |
| General Properties | | | |
| Boiling Point | Data lacking | Melting Point/Freezing Point | Data lacking |

| | | | |
|-------------------------------------|--|-----------------------|--|
| Decomposition Temperature | Data lacking | pH | Data lacking |
| Specific Gravity/Relative Density | 0.89 to 0.94 @ 59 F(15 C) Water=1 | Density | 7.6 to 7.8 lbs/gal |
| Water Solubility | Insoluble | Viscosity | 20 to 40 Centistoke (cSt, cS) or mm ² /sec @ 100 F(37.7778 C) |
| Explosive Properties | Data lacking | Oxidizing Properties: | Data lacking |
| Volatility | | | |
| Vapor Pressure | 1 mmHg (torr) @ 75 F(23.8889 C) 1.6 mmHg @ 100°F/37.8°C 3.6mmHg @ 125 °F/51.7 °C | Vapor Density | Data lacking |
| Evaporation Rate | Data lacking | | |
| Flammability | | | |
| Flash Point | 151 F(66.1111 C) PMCC (Pensky-Martins Closed Cup) | UEL | Data lacking |
| LEL | Data lacking | Autoignition | Data lacking |
| Flammability (solid, gas) | Data lacking | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | Data lacking | | |

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat, sparks, open flame.

10.5 Incompatible materials

- Avoid contact with strong oxidizers (eg. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

10.6 Hazardous decomposition products

- In the event of combustion CO, CO₂, Nox may be formed.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

| Components | |
|------------------------------|---|
| Solvent naphtha (30% TO 60%) | 64742-94-5 Acute Toxicity: Inhalation-Rat LC50 • >590 mg/m ³ 4 Hour(s); Skin-Rabbit LD50 • >2 mL/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Changes in motor activity (specific assay); Behavioral:Irritability; Irritation: Skin-Rabbit • 500 µL 24 Hour(s) • Mild irritation |
| | Acute Toxicity: Ingestion/Oral-Guinea Pig LD50 • 1200 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Changes in motor activity (specific assay); Ingestion/Oral-Rat LD50 • 490 |

| | | |
|-----------------------------------|---------|--|
| Naphthalene (1% TO 5%) | 91-20-3 | <p>mg/kg; Ingestion/Oral-Mouse TDLo • 158 mg/kg; <i>Brain and Coverings:Other degenerative changes; Liver:Other changes; Biochemical:Metabolism (intermediary):Lipids, including transport</i>; Inhalation-Human TCLo • 250 mg/m³; <i>Sense Organs and Special Senses:Eye:Lacrimation; Behavioral:Headache</i>; Skin-Rabbit LD50 • >20 g/kg; Irritation: Skin-Rabbit • 0.05 mL 24 Hour(s) • Severe irritation;</p> <p>Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 500 mg/kg 10 Day(s)-Intermittent; <i>Behavioral:Sleep; Lungs, Thorax, or Respiration:Dyspnea</i>; Ingestion/Oral-Rat TDLo • 4500 mg/kg 10 Day(s)-Intermittent; <i>Brain and Coverings:Other degenerative changes</i>;</p> <p>Mutagen: Specific locus test • Inhalation-Rat • 30 ppm 13 Week(s)-Intermittent; Micronucleus test • Unreported Route-Human • Lymphocyte (Somatic cell) • 30 mg/L;</p> <p>Reproductive: Ingestion/Oral-Mouse TDLo • 2400 mg/kg (7-14D preg); <i>Reproductive Effects:Effects on Newborn:Live birth index; Reproductive Effects:Effects on Newborn:Viability index (e.g., # alive at day 4 per # born alive)</i>; Ingestion/Oral-Rat TDLo • 4500 mg/kg (6-15D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)</i>; <i>Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</i>;</p> <p>Tumorigen / Carcinogen: Inhalation-Mouse TCLo • 30 ppm 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Neoplastic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</i>; Inhalation-Rat TCLo • 1575 mg/kg 105 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Sense Organs and Special Senses:Olfaction:Tumors</i>; Inhalation-Rat TCLo • 60 ppm 6 Hour(s) 105 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Sense Organs and Special Senses:Olfaction:Tumors</i></p> |
| 1,2,4-Trimethylbenzene (1% TO 5%) | 95-63-6 | <p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 5 g/kg; Inhalation-Rat LC50 • 18000 mg/m³ 4 Hour(s);</p> <p>Multi-dose Toxicity: Inhalation-Rat TCLo • 100 ppm 6 Hour(s) 20 Day(s)-Intermittent; <i>Behavioral:Changes in motor activity (specific assay); Behavioral:Analgesia; Behavioral:Alteration of operant conditioning</i>; Inhalation-Rat TCLo • 20 mg/m³ 16 Week(s)-Continuous; <i>Kidney, Ureter, and Bladder:Other changes in urine composition</i></p> |

| GHS Properties | Classification |
|-------------------------------|---|
| Respiratory sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Serious eye damage/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Acute toxicity | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Aspiration Hazard | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Carcinogenicity | EU/CLP • Carcinogenicity 2 OSHA HCS 2012 • Carcinogenicity 2 |
| Skin corrosion/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Skin Irritation 2 |
| Skin sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| STOT-RE | EU/CLP • Data lacking OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 |
| STOT-SE | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Toxicity for Reproduction | EU/CLP • Data lacking OSHA HCS 2012 • Toxic to Reproduction 2 |
| Germ Cell Mutagenicity | EU/CLP • Data lacking OSHA HCS 2012 • Germ Cell Mutagenicity 2 |

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause irritation.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • Prolonged or repeated contact may dry the skin and lead to irritation (i.e. dermatitis)

Eye

- Acute (Immediate)** • Can cause mild, short-lasting irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • May cause nausea, committing, pain and stomach upset (e.g., diarrhea)
- Chronic (Delayed)** • No data available.

Other

- Chronic (Delayed)** • Chronic exposure of workers to naphthalene has been reported to cause cataracts and retinal hemorrhage. Exposure to a large amount of naphthalene may cause hemolytic anemia.

Mutagenic Effects

- Repeated and prolonged exposure may cause mutagenic effects.

Carcinogenic Effects

- Repeated and prolonged exposure may cause cancer.

| Carcinogenic Effects | | | |
|-----------------------------|------------|------------------------------|---|
| | CAS | IARC | NTP |
| Naphthalene | 91-20-3 | Group 2B-Possible Carcinogen | Reasonably Anticipated to be Human Carcinogen |

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information**12.1 Toxicity**

| LubriBOR® | | | | | |
|------------------|---|-----------------|----------------|----------------------------|----------------------------------|
| Dosage | Species | Duration | Results | Exposure Conditions | Comments |
| 0.213 mg/L | Fish: Melanotaeni a fluviatilis (Chrimson-Spotted Rainbowfish) | 96 Hour (s) | LC50 | NDA | Naphthalene (91-20-3) |
| 136 mg/L | Crustacea: Daphnia magna (Water Flea) | 48 Hour (s) | EC50 | NDA | Naphthalene (91-20-3) |
| 1 mg/L | Crustacea: Daphnia magna (Water Flea) | 48 Hour (s) | NOEC | NDA | Naphthalene (91-20-3) |
| 4.15 mg/L | Aquatic Plant(s): Scenedesmus subspicatus (Green Algae) | 7 Day(s) | NOEC | NDA | Naphthalene (91-20-3) |
| 7.72 mg/L | Fish: Pimephales promelas (Fathead Minnow) | 96 Hour (s) | LC50 | NDA | 1,2,4-Trimethylbenzene (95-63-6) |
| 3.6063 mg/L | Crustacea: Daphnia magna (Water Flea) | 48 Hour (s) | EC50 | NDA | 1,2,4-Trimethylbenzene (95-63-6) |

- Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

- No data is available on this product.

12.3 Bioaccumulative potential

- No data is available on this product.

12.4 Mobility in Soil

- No data is available on this product.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

| | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|---|---------------------------------|--------------------|----------------------------|
| DOT | NA1993 | Combustible liquid, n.o.s. (Contains Aromatic Hydrocarbons) | Comb. Liq. | III | NDA |
| TDG | NDA | Not Regulated | NDA | NDA | NDA |
| IMO/IMDG | NDA | Not Regulated | NDA | NDA | NDA |
| IATA/ICAO | NDA | Not Regulated | NDA | NDA | NDA |

14.6 Special precautions for user

- None specified.

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

- Data lacking.

Section 15 - Regulatory Information

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

SARA Hazard Classifications

- Acute, Chronic, Fire

| Inventory | | | | | | |
|------------------------|---------|------------|-------------|-----------|-----------|------|
| Component | CAS | Canada DSL | Canada NDSL | EU EINECS | EU ELNICS | TSCA |
| 1,2,4-Trimethylbenzene | 95-63-6 | Yes | No | Yes | No | Yes |
| Naphthalene | 91-20-3 | Yes | No | Yes | No | Yes |

| | | | | | | |
|-----------------|------------|-----|----|-----|----|-----|
| Solvent naphtha | 64742-94-5 | Yes | No | Yes | No | Yes |
|-----------------|------------|-----|----|-----|----|-----|

Canada

Labor

Canada - WHMIS - Classifications of Substances

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | B4, D2A |
| • 1,2,4-Trimethylbenzene | 95-63-6 | B3 |
| • Solvent naphtha | 64742-94-5 | Not Listed |

Canada - WHMIS - Ingredient Disclosure List

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | 1 % |
| • 1,2,4-Trimethylbenzene | 95-63-6 | 0.1 % |
| • Solvent naphtha | 64742-94-5 | Not Listed |

Environment

Canada - CEPA - Priority Substances List

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

| | | |
|--------------------------|------------|-----------------------------------|
| • Naphthalene | 91-20-3 | 100 lb final RQ; 45.4 kg final RQ |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|--------------------------|------------|--------------------------------|
| • Naphthalene | 91-20-3 | 0.1 % de minimis concentration |
| • 1,2,4-Trimethylbenzene | 95-63-6 | 1.0 % de minimis concentration |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

| | | |
|--------------------------|------------|----------------------------------|
| • Naphthalene | 91-20-3 | carcinogen, initial date 4/19/02 |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - California - Proposition 65 - Developmental Toxicity

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|--------------------------|------------|-----------------|
| • Naphthalene | 91-20-3 | 5.8 µg/day NSRL |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|--------------------------|------------|------------|
| • Naphthalene | 91-20-3 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

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

Section 16 - Other Information

Relevant Phrases (code & full text)

- H226 - Flammable liquid and vapour
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H335 - May cause respiratory irritation
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- R10 - Flammable.
- R20 - Harmful by inhalation.
- R22 - Harmful if swallowed.
- R36/37/38 - Irritating to eyes, respiratory system and skin.
- R50 - Very toxic to aquatic organisms.

Revision Date

- 03/August/2015

Preparation Date

- 01/January/2014

Disclaimer/Statement of Liability

- **USER'S RESPONSIBILITY:** A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be. **DISCLAIMER OF LIABILITY:** The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

Key to abbreviations

NDA = No data available