SAFETY DATA SHEET

LPA®-142 Solvent

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Trade name</th>
<th>LPA®-142 Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>Paraffinic Naphthenic Solvent, Aliphatic Solvent</td>
</tr>
<tr>
<td>Use</td>
<td>Industrial use, Industrial &amp; Institutional cleaning, Paint and Coatings, Water treatment chemical</td>
</tr>
<tr>
<td>Company</td>
<td>Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)</td>
</tr>
<tr>
<td>Address</td>
<td>12120 Wickchester Lane   Houston TX 77079</td>
</tr>
<tr>
<td>Telephone</td>
<td>CHEMTREC North America Transportation Emergency (24-hr) (800) 424-9300</td>
</tr>
<tr>
<td></td>
<td>CHEMTREC World Wide (703) 527-3887</td>
</tr>
<tr>
<td></td>
<td>Other Emergencies (24-hr) (337) 494-5142</td>
</tr>
<tr>
<td></td>
<td>MSDS and Product Information (8:00am-4:30pm CST) (281) 588-3491</td>
</tr>
<tr>
<td></td>
<td>Health and Safety Information (7:30am-4:00pm CST) (281) 588-3492</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:SasolElectronicSDS@us.sasol.com">SasolElectronicSDS@us.sasol.com</a></td>
</tr>
</tbody>
</table>

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazards
- Flammable liquids Category 4
- Aspiration hazard Category 1

LABEL ELEMENTS

Hazard symbols

Signal word Danger

Hazard statements
- H227 Combustible liquid.
- H304 May be fatal if swallowed and enters airways.

Precautionary statements

Prevention
- P210 Keep away from open flames/hot surfaces. - No smoking.
- P280 Wear protective gloves/ eye protection/ face protection.

Response
- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- P331 Do NOT induce vomiting.
SAFETY DATA SHEET

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Storage  P403 + P405 + P235   Store locked up in a well-ventilated place. Keep cool.

Disposal  P501   Dispose of contents/container to an approved waste disposal plant.

SECTION 3  COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates, petroleum, hydrotreated light</td>
<td>64742-47-8</td>
<td>100</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4  FIRST AID MEASURES

Eye contact   Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact   Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

Inhalation   Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Ingestion   If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5  FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES
Fire/explosion   NFPA Class IIIA combustible liquid.

Suitable extinguishing media   Water spray or fog, foam, dry chemical, CO2

Protective equipment and precautions for firefighters   Wear self-contained breathing apparatus and protective suit.

Further information   Keep containers and surroundings cool with water spray.

SECTION 6  ACCIDENTAL RELEASE MEASURES
Methods and materials for containment and cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7  HANDLING AND STORAGE

Safe handling advice: Ensure all equipment is electrically grounded before beginning transfer operations.

Storage/Transport temperature: Ambient

Storage/Transport pressure: Ambient

Load/Unload temperature: Ambient

SECTION 8  EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES: Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines).

PERSONAL PROTECTIVE EQUIPMENT:

Eyes: Wear as appropriate: Goggles, Face-shield

Skin: Wear suitable protective clothing, gloves and eye/face protection.

Inhalation: Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES: Contains no substances with occupational exposure limit values. The following Sasol internal standard would apply; 100 ppm (525 mg/m3) for 8-hour TWA (Exposure limits for Petroleum Distillate - Stoddard Solvent)

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid;

Colour: clear

Form: liquid

Odour: hydrocarbon-like

Odour Threshold: no data available
## SAFETY DATA SHEET

### LPA®-142 Solvent

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>Average 63 °C, 145 °F; ASTM D 56;</td>
</tr>
<tr>
<td>Flammability</td>
<td>Upper explosion limit: 7.0 %(V)</td>
</tr>
<tr>
<td></td>
<td>Lower explosion limit: 0.7 %(V)</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>192 - 211 °C, 376 - 412 °F; ASTM D-86;</td>
</tr>
<tr>
<td></td>
<td>ASTM D-86;</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>&lt; -70 °C, &lt; -94 °F; ASTM D-2386;</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>233 °C, 453 °F; ASTM E 659;</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>0.32 mm Hg @ 20 °C, 68 °F; API Calculation;</td>
</tr>
<tr>
<td>Vapour density</td>
<td>5.4</td>
</tr>
<tr>
<td>Density</td>
<td>0.803 g/cm³ @ 15.5 °C, 60 °F; ASTM D-287;</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>negligible</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.8 cSt @ 20 °C, 68 °F; ASTM D 445;</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
</tbody>
</table>

### SECTION 10  STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>Stable at normal ambient temperature and pressure.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Keep away from heat and sources of ignition.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Hazardous gases and vapors produced in fire are oxides of carbon.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Oxidizing agents</td>
</tr>
</tbody>
</table>
### LPA®-142 Solvent

**Hazardous polymerisation**

None.

### TOXICOLOGICAL INFORMATION

#### SECTION 11

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute dermal toxicity</strong></td>
<td>LD50 rabbit: 2,000 - 4,000 mg/kg</td>
</tr>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td>LC50 rat (4 hours): &gt; 4.3 mg/l&lt;br&gt;All rats survived at indicated concentration.</td>
</tr>
<tr>
<td><strong>Acute oral toxicity</strong></td>
<td>LD50 rat: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Primary irritation (rabbit): 1.2 (Max. score is 8.0.)</td>
</tr>
<tr>
<td><strong>Eye damage/irritation</strong></td>
<td>Primary irritation (rabbit): 1 hours; 3.0 (Max. score is 110.)</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Genotoxicity in vitro: no data available</td>
</tr>
<tr>
<td></td>
<td>Genotoxicity in vivo: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Mutagenicity: no data available</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>Reproductive toxicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Reproductive toxicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Teratogenicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment teratogenicity: no data available</td>
</tr>
<tr>
<td><strong>STOT - single exposure</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>STOT - repeated exposure</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Aspiration toxicity</strong></td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>Assessment carcinogenicity: Contains no ingredient listed as a carcinogen</td>
</tr>
</tbody>
</table>
SECTION 12  ECOLOGICAL INFORMATION

Aquatic toxicity  Not toxic to aquatic organisms (fish, daphnia, algae) up to water solubility.
Toxicity to fish  no data available
Toxicity to aquatic invertebrates  no data available
Toxicity to algae  no data available
Chronic toxicity to fish  no data available
Chronic toxicity to aquatic invertebrates  no data available

Biodegradation  Readily biodegradable.
OECD Test Guideline 301F (28 d): 97 %
Test substance: LPA® 142 Solvent

Bioaccumulation  no data available

Mobility in soil  no data available

Other adverse effects  no data available

SECTION 13  DISPOSAL CONSIDERATIONS

Waste Code  Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.

Disposal methods  Dispose of only in accordance with local, state, and federal regulations.

Empty containers.  Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14  TRANSPORT INFORMATION
LPA®-142 Solvent

**DOT** Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3)).

**IATA** Not regulated.

**IMDG** Not regulated.

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

**Remarks** no data available

### SECTION 15 REGULATORY INFORMATION

**U.S. FEDERAL REGULATIONS**

**OSHA Hazards (HCS 1994)**

Combustible liquid.

**TSCA Inventory Listing**

**Components**

Distillates, petroleum, hydrotreated light

**CAS-No.** 64742-47-8

**SARA 302 Status**

**Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 311/312 Classification**

"Fire hazard", "Immediate (acute) health hazard"

**SARA 313 Chemical**

**Components**

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.

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

**Components**

none

**Reportable Quantity**

none

**Weight percent**

none

**INTERNATIONAL REGULATIONS**

**WHMIS Classification**

Class B, Division 3: Combustible liquid.

**European Union**

Classification according to Regulation (EU) 1272/2008.

Aspiration hazard, Category 1

Repeated exposure may cause skin dryness or cracking.

**Australia. Inventory of Chemical Substances (AICS)**

Listed
SAFETY DATA SHEET

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Japan. Inventory of Existing and New Chemical Substances (ENCS) Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory Listed
Canada. Domestic Substances List (DSL) Inventory Listed
Canadian Non-Domestic Substance Listing (NDSL) Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS) Listed
Korea. Existing Chemicals Inventory (KECI) Listed
China. Inventory of Existing Chemical Substances (IECSC) Listed
Mexico. National Inventory of Chemical Substances (INSQ) Listed
New Zealand. Inventory of Chemicals (NZIoC) Listed
Switzerland. Inventory of Notified New Substances (CHINV) Listed
Taiwan. National Existing Chemical Inventory (NECI) Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65 Components none CAS-No.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th>HMIS®</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/ Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>NFPA</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

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LPA®-142 Solvent

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SAFETY DATA SHEET

1. Identification

Identification
Product name: ALOX® 606-55

Additional identification
Chemical name: Mixture

Recommended use and restriction on use
Recommended use: Not determined.
Restrictions on use: Not determined.

Details of the supplier of the safety data sheet
Supplier
Company Name: THE LUBRIZOL CORPORATION
Address: 29400 LAKE LAND BOULEVARD WICKLiffe, OH 44092-2298 US
Telephone: (440)943-1200

Emergency telephone number:
FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300 (LUBRIZOL)

2. Hazard(s) identification

Hazard Classification
Physical Hazards
Flammable liquids Category 3

Health Hazards
Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Toxicity - Repeated Exposure Category 1

Unknown toxicity
Acute toxicity, oral 0.0 %
Acute toxicity, dermal 0.0 %
Acute toxicity, inhalation, vapor 96.7 %
Acute toxicity, inhalation, dust or mist 96.7 %

Label Elements:

Hazard Symbol:

Signal Word: Danger
**Hazard Statement:**
Flammable liquid and vapor.
Causes serious eye irritation.
Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statement:**

**Prevention:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not breathe dust or mists. Do not eat, drink or smoke when using this product. Avoid release to the environment.

**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. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. In case of fire: Use CO2, dry chemical or foam for extinction. Water can be used to cool and protect exposed material. Collect spillage.

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

**Disposal:**
Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:**
None identified.

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral spirits</td>
<td>8052-41-3</td>
<td>40 - 50%</td>
</tr>
<tr>
<td>Mineral oil</td>
<td>Not determined</td>
<td>1 - 5%</td>
</tr>
</tbody>
</table>

The mineral oil contained in this material may be described by one or more of the following CAS Nos.: 64742-54-7, 64742-65-0, 64742-55-8, and 64742-56-9.

### 4. First-aid measures

**General information:**
Get medical advice/attention if you feel unwell.

**Ingestion:**
Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting.

**Inhalation:**
Remove exposed person to fresh air if adverse effects are observed.

**Skin Contact:**
Take off immediately all contaminated clothing. Take off contaminated clothing and wash before re-use. Wash with soap and water. If skin irritation occurs, get medical attention.

**Eye contact:**
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.
Most important symptoms/effects, acute and delayed

**Symptoms:** See section 11.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically.

### 5. Fire-fighting measures

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Suitable (and unsuitable) extinguishing media**
- **Suitable extinguishing media:** CO2, Dry chemical or Foam. Water can be used to cool and protect exposed material.
- **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 cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations. Vapors may travel considerable distance to a source of ignition and flash back. Water may cause splattering. Container may rupture on heating. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.

**Special protective equipment and precautions for firefighters**
- **Special fire fighting procedures:** No data available.
- **Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.

**Methods and material for containment and cleaning up:** Eliminate all ignition sources if safe to do so. Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.
7. Handling and storage

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid environmental contamination.

Maximum Handling Temperature: 25 °C 77 °F

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Keep cool. Store in a well-ventilated place. Do not store near potential sources of ignition.

Maximum Storage Temperature: 25 °C 77 °F

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral spirits</td>
<td>TWA</td>
<td>100 ppm</td>
<td>US. ACGIH Threshold Limit Values (02 2012)</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>REL</td>
<td>350 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>Cell_Time</td>
<td>1,800 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>PEL</td>
<td>500 ppm</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Mineral oil - Inhalable fraction</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (02 2012)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>REL</td>
<td>5 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>STEL</td>
<td>10 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Use explosion-proof ventilation equipment to stay below exposure limits.

Individual protection measures, such as personal protective equipment

General information: Use explosion-proof ventilation equipment. Provide easy access to water supply and eye wash facilities. 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/face protection: Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.
Skin Protection

Hand Protection: Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water.

Other: Chemical resistant boots. Wear apron or protective clothing in case of contact.

Respiratory Protection: A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Hygiene measures: Observe good industrial hygiene practices. Avoid contact with eyes. When using do not smoke.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Brown
Odor: Hydrocarbon
Odor threshold: No data available.
pH: No data available.
Freezing point: No data available.
Boiling Point: > 302 °F (150 °C)
Flash Point: 108 °F (42 °C) (Tagliabue Closed Cup)
Evaporation rate: No data available.
Flammability (solid, gas): No data available.
Flammability limit - upper (%): No data available.
Flammability limit - lower (%): No data available.
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: No data available.
Relative density: 0.84 - 0.92 60.1 °F (15.6 °C)

Solubility(ies)

Solubility in water: Insoluble in water
Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: 435 mm2/s (104 °F (40 °C) ) 26.5 mm2/s (100 °C (212 °F) ) < 5,000 mPa.s (77 °F (25 °C) )

Other information

Bulk density: 7.33 lb/gal 77 °F (25 °C)
VOC: 3.17 lb/gal
Pour Point Temperature: Approximate 43 °F (6 °C)
10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Heat, sparks, flames.

Incompatible Materials: Strong acids.

Hazardous Decomposition Products: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: Causes mild skin irritation.

Eye contact: Causes serious eye irritation.

Information on toxicological effects

Acute toxicity

Oral Product: Not classified for acute toxicity based on available data. Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. Ingestion can cause central nervous system effects such as headache, dizziness, drowsiness, and generalized weakness. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Dermal Product: Not classified for acute toxicity based on available data.

Inhalation Product: Not classified for acute toxicity based on available data. High concentrations may cause headaches, dizziness, nausea, stupor, and other central nervous system effects leading to visual impairment, difficulty breathing and convulsions. High concentrations may cause irregular heartbeats and possibly fatal cardiac arrhythmias. High concentration of vapors can reduce oxygen content in the air of confined spaces resulting in oxygen deprivation.

Skin Corrosion/Irritation: Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin. Remarks: Causes mild skin irritation.

Serious Eye Damage/Eye Irritation: Remarks: Causes serious eye irritation.
Respiratory sensitization: No data available

Skin sensitization: Mineral oil Classification: Not a skin sensitizer. (Read across) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:
Mineral spirits If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Mineral oil If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Aspiration Hazard: Mineral oil Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Other effects: Mineral spirits Kidney Petroleum hydrocarbon solvent is toxic to lungs, central nervous system, brain, mucous membranes, skin, eyes and possibly the blood, liver or kidneys.

Chronic Effects

Carcinogenicity: Product: This product contains mineral oils which are severely refined and not considered carcinogenic. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified


Germ Cell Mutagenicity: Mineral spirits This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

Reproductive toxicity: No data available

Specific Target Organ Toxicity - Repeated Exposure:
Mineral spirits Unknown: Target Organ(s): Brain., Lung Repeated excessive ingestion may cause central nervous system effects.
12. Ecological information

Ecotoxicity

Fish
Mineral oil
LC 50 (Fathead Minnow, 4 d): > 100 mg/l

Aquatic Invertebrates
Mineral oil
EC 50 (Water flea (Daphnia magna), 2 d): > 10,000 mg/l
EC 50 (Water flea (Daphnia magna), 21 d): > 10 mg/l
NOEC (Water flea (Daphnia magna), 21 d): > 10 mg/l

Toxicity to Aquatic Plants
Mineral oil
EC 50 (Green algae (Scenedesmus quadricauda), 3 Days): > 100 mg/l

Toxicity to soil dwelling organisms
No data available

Sediment Toxicity
No data available

Toxicity to Terrestrial Plants
No data available

Toxicity to Above-Ground Organisms
No data available

Toxicity to microorganisms
No data available

Persistence and Degradability

Biodegradation
Mineral oil
OECD TG 301 B, 31 %. 28 d, Not readily degradable.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
No data available

Partition Coefficient n-octanol / water (log Kow)
No data available

Mobility:
No data available

Other Adverse Effects:
No data available.

13. Disposal considerations

Disposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.

Contaminated Packaging: Container packaging may exhibit hazards.
14. Transport information

DOT
UN Number: NA 1993
UN Proper Shipping Name: Combustible liquid, n.o.s.(Mineral spirits, Benzene, 1,2,4-trimethyl-)
Transport Hazard Class(es)
   Class: CBL
   Label(s): –
Packing Group: III
Marine Pollutant: Yes
Special precautions for user: None established

IMDG
UN Number: UN 1268
UN Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.(Mineral spirits, Benzene, 1,2,4-trimethyl-)
Transport Hazard Class(es)
   Class: 3
   Label(s): 3
   EmS No.: F-E, S-E
Packing Group: III
Marine Pollutant: Yes
Limited quantity 5.00L
Excepted quantity E1
Special precautions for user: None established

IATA
UN Number: UN 1268
Proper Shipping Name: Petroleum distillates, n.o.s.(Mineral spirits, Benzene, 1,2,4-trimethyl-)
Transport Hazard Class(es)
   Class: 3
   Label(s): 3
Marine Pollutant: Yes
Packing Group: III
Limited quantity 10.00L
Excepted quantity E1
Environmental Hazards Marine Pollutant
Special precautions for user: None established
Other information
   Passenger and cargo aircraft: Allowed.
   Cargo aircraft only: Allowed.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
None known.

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.
Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

<table>
<thead>
<tr>
<th>Fire Hazard</th>
<th>Immediate Health Hazards</th>
<th>Delayed (Chronic) Health Hazard</th>
</tr>
</thead>
</table>

SARA 302 Extremely Hazardous Substance
SARA 304 Emergency Release Notification
SARA 311/312 Hazardous Chemical
SARA 313 (TRI Reporting)
This product may contain chemical(s) regulated under the Superfund Amendments and Reauthorization Act (SARA). For additional information please contact Lubrizol Customer Assistance: America(s): AmerLZAMCustomerAssistance@Lubrizol.com; Europe: EMEOICustomerAssistance@Lubrizol.com; Asia: APCustomerAssistance@Lubrizol.com

US State Regulations
US. California Proposition 65
No ingredient regulated by CA Prop 65 present.

Inventory Status
Australia (AICS)
All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)
All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

China (IECSC)
All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACH)
To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH, or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com

Japan (ENCS)
All components are in compliance with the Chemical Substances Control Law of Japan.

Korea (ECL)
All components are in compliance in Korea.

New Zealand (NZIoC)
All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)
All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

Switzerland (SWISS)
All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)
All components of this product are listed on the Taiwan inventory.

United States (TSCA)
All components of this material are on the US TSCA Inventory.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.
16. Other information, including date of preparation or last revision

HMIS Hazard ID

<table>
<thead>
<tr>
<th>Health</th>
<th>* 2</th>
</tr>
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<tbody>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazards</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID

Flammability 2 2 0
Health
Reactivity
Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 04/30/2015
Version #: 1.0
Source of information: Internal company data and other publically available resources.
Further Information: Contact supplier (see Section 1)
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