# SAFETY DATA SHEET

## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER’S IDENTIFICATION

<table>
<thead>
<tr>
<th>Product ID:</th>
<th>573933</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>TurbineGard R&amp;O ISO 22</td>
</tr>
<tr>
<td>Revision Date:</td>
<td>May 04, 2017</td>
</tr>
<tr>
<td>Date Printed:</td>
<td>Aug 18, 2017</td>
</tr>
<tr>
<td>Version:</td>
<td>1.0</td>
</tr>
<tr>
<td>Supersedes Date:</td>
<td>N.A.</td>
</tr>
<tr>
<td>Manufacturer’s Name:</td>
<td>Martin Operating Partnership L.P.</td>
</tr>
<tr>
<td>Address:</td>
<td>P.O. Box 191, Kilgore, TX, US, 75663</td>
</tr>
<tr>
<td>Emergency Phone:</td>
<td>CHEMTREC (800) 424-9300</td>
</tr>
<tr>
<td>Information Phone Number:</td>
<td>870-864-7800</td>
</tr>
<tr>
<td>Fax:</td>
<td></td>
</tr>
<tr>
<td>Product/Recommended Uses:</td>
<td>Lubricating Oil</td>
</tr>
</tbody>
</table>

## SECTION 2) HAZARDS IDENTIFICATION

### Classification

- Carcinogenicity - Category 1B
- Acute aquatic toxicity - Category 3
- Acute toxicity Inhalation - Category 4

### Pictograms

### Signal Word

Danger

### Hazardous Statements - Health

- May cause cancer.
- Harmful if inhaled

### Hazardous Statements - Environmental

- Harmful to aquatic life

### Precautionary Statements - General

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

### Precautionary Statements - Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid release to the environment.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to disposal recycling center. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Hazard not otherwise classified (HNOC)

None

Acute toxicity of less than one percent of the mixture is unknown

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
<th>% By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>0064742-58-1</td>
<td>LUBRICATING OILS (PETROLEUM), HYDROTREATED SPENT</td>
<td>84% - 100%</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Aryl amine</td>
<td>0.0% - 0.3%</td>
</tr>
<tr>
<td>0064742-55-8</td>
<td>PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC</td>
<td>0 - 0.1 %</td>
</tr>
<tr>
<td>0072623-86-0</td>
<td>Severly hydrotreated paraffinic oil and additive</td>
<td>0 - 0.1 %</td>
</tr>
<tr>
<td>0000122-39-4</td>
<td>DIPHENYLAMINE</td>
<td>0 - 0.1 %</td>
</tr>
<tr>
<td>0000091-20-3</td>
<td>NAPHTHALENE</td>
<td>0 - 0.1 %</td>
</tr>
</tbody>
</table>

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact

Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

If exposed or concerned: Get medical advice/attention.

Eye Contact

If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

Ingestion

Immediately call a POISON CENTER/doctor.

If exposed or concerned: Get medical advice/attention.

Most Important Symptoms/Effects, Acute and Delayed

No data available

Indication of Immediate Medical Attention and Special Treatment Needed

No data available

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.
Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide, unidentified organic and inorganic compounds.

Oxides of C, Zn, Ca, P and S. Additional byproducts include hydrogen sulfide, alkyl mercaptan and other sulfides

Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray or fog may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Collect with absorbent, non-combustible material into suitable containers. Transfer to a container for disposal.

Large spills, once contained, may be picked up using explosion proof, non sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. Local authorities should be advised if significant spillages cannot be contained.

Spill procedures (water): Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended equipment

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe vapors or mists.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.
Remove contaminated clothing and protective equipment before entering eating areas.
Do not swallow.
Wear appropriate respirator when ventilation is inadequate.
Do not enter storage areas and confined spaces unless adequately ventilated.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.
**SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Eye protection**
Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

**Skin protection**
Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Chemical-resistant clothing is recommended to avoid prolonged contact. Avoid unnecessary skin contact.

Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. If handling hot material use insulated protective equipment.

**Respiratory protection**
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours.

**Appropriate Engineering Controls**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of gas, vapors or dusts below their respective threshold limit value.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA TWA (ppm)</th>
<th>OSHA TWA (mg/m³)</th>
<th>OSHA STEL (ppm)</th>
<th>OSHA STEL (mg/m³)</th>
<th>OSHA Tables (Z1, Z2, Z3)</th>
<th>OSHA Skin designation</th>
<th>OSHA Carcinogen</th>
<th>NIOSH TWA (ppm)</th>
<th>NIOSH TWA (mg/m³)</th>
<th>NIOSH STEL (ppm)</th>
<th>NIOSH STEL (mg/m³)</th>
<th>NIOSH Carcinogen</th>
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<tbody>
<tr>
<td>DIPHENYLAMINE</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td>LUBRICATING OILS (PETROLEUM), HYDROTREATED SPENT</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>NAPHTHALENE</td>
<td>10</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>50</td>
<td>15</td>
<td>75</td>
<td></td>
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<td>2000</td>
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<td>Severely hydrotreated paraffinic oil and additive</td>
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<td>2000</td>
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<table>
<thead>
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<th>ACGIH TWA (ppm)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH STEL (ppm)</th>
<th>ACGIH STEL (mg/m³)</th>
<th>ACGIH Carcinogen</th>
<th>ACGIH Notations</th>
<th>ACGIH TLV Basis</th>
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<tr>
<td>DIPHENYLAMINE</td>
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<td></td>
<td>A4</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Liver &amp; kidney dam; hematological eff</td>
</tr>
<tr>
<td>NAPHTHALENE</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>A3</td>
<td>Skin; A3</td>
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<tr>
<td>PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>URT ir; cataracts; hemolytic anemia</td>
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<tr>
<td>Severely hydrotreated paraffinic oil and additive</td>
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SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Density @15.6°C</td>
<td>7.12 lb/gal</td>
</tr>
<tr>
<td>Specific Gravity @15.6°C</td>
<td>0.85</td>
</tr>
<tr>
<td>Appearance</td>
<td>Amber</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N.A.</td>
</tr>
<tr>
<td>Odor Description</td>
<td>Mild petroleum hydrocarbon odor</td>
</tr>
<tr>
<td>pH</td>
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<tr>
<td>Water Solubility</td>
<td>Negligible</td>
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<tr>
<td>Flammability</td>
<td>Flash Point at or above 200 °F</td>
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<tr>
<td>Flash Point Symbol</td>
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<tr>
<td>Flash Point, COC</td>
<td>214.0°C (417.20°F)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>22.09 cSt at 40°C (104°F) 4.43 cSt at 100°C (212°F)</td>
</tr>
<tr>
<td>Lower Explosion Level</td>
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<td>Upper Explosion Level</td>
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<tr>
<td>Vapor Pressure</td>
<td>Negligible at STP</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;1 at STP</td>
</tr>
<tr>
<td>Pour Point</td>
<td>-26.0°C (-14.80°F)</td>
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<tr>
<td>Melting Point</td>
<td>N.A.</td>
</tr>
<tr>
<td>Low Boiling Point</td>
<td>Expected to be &gt; 260°C (500°F)</td>
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<tr>
<td>High Boiling Point</td>
<td>N.A.</td>
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<tr>
<td>Auto Ignition Temp</td>
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<tr>
<td>Decomposition Pt</td>
<td>N.A.</td>
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<tr>
<td>Evaporation Rate</td>
<td>Negligible at STP</td>
</tr>
<tr>
<td>Partition Coefficient: n-Octanol/Water</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

SECTION 10) STABILITY AND REACTIVITY

Stability

Stable

Conditions to Avoid

Avoid direct sunlight, extremes of temperatures and contact with incompatible materials.

Avoid high temperatures and product contamination.

Hazardous Polymerization

Will not occur.

Incompatible Materials

Avoid contact with acids and oxidizing materials.

Hazardous Decomposition Products

Smoke, carbon monoxide and dioxide and other aldehydes of incomplete combustion. Oxides of C, Zn, Ca, P and S. Hydrogen sulfide and alkyl mercaptans and other sulfides may be released.

SECTION 11) TOXICOLOGICAL INFORMATION
Likely route of exposure
   Inhalation, ingestion, skin absorption

Skin Corrosion/Irritation
   May cause mild irritation of the skin.

Serious Eye Damage/Irritation
   Can be slightly irritating to eyes.

Respiratory or Skin Sensitization
   Hot vapors may cause respiratory irritation.
   Prolonged or repeated contact may make skin more sensitive to other skin sensitzers.

Respiratory/Skin Sensitization
   No Data Available

Germ Cell Mutagenicity
   No data available.

Carcinogenicity
   No data available.

Reproductive Toxicity
   No data available.

Specific Target Organ Toxicity - Single Exposure
   No data available.

Specific Target Organ Toxicity - Repeated Exposure
   No data available.

Aspiration Hazard
   Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Acute Toxicity
   If inhalation: Overexposure by inhalation of hot material may cause nonspecific discomfort, such as nausea, headache or weakness.
   Caution should be taken to prevent forming aerosol or misting of this product without proper respiratory protection.
   Harmful if inhaled

0064742-55-8       PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC
   LC50 (Rodent - rat, Inhalation): 3900 mg/m3/4H

0000122-39-4       DIPHENYLAMINE
   LD50 (oral, guinea pig): 300 mg/kg (2)
   LD50 (oral, rat): 2000 mg/kg (2)
   LD50 (oral, mouse): 1750 mg/kg (2)

0000091-20-3       NAPHTHALENE
   LC50: Insufficient data
   LD50 (oral, mouse): 533 mg/kg (male); 710 mg/kg (female) (1)
   LD50 (oral, rat): 1780 mg/kg (2)

Potential Health Effects - Miscellaneous
   0000091-20-3       NAPHTHALENE

   Is an IARC, NTP or OSHA carcinogen. Tests in some laboratory animals demonstrate carcinogenic activity. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: kidneys, liver. Recurrent overexposure may result in liver and kidney injury. WARNING: This chemical is known to the State of California to cause cancer.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity
   No Data Available.
Harmful to aquatic life

Persistence and Degradability
No Data Available.

Other Adverse Effects
No Data Available.

Bio-accumulative Potential
0064742-55-8 PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC
Contains constituents with the potential to bioaccumulate.

Mobility in Soil
0064742-55-8 PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC
Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal
Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information
Bulk Shipping Description: Does not apply to bulk oil shipping.
Non-Bulk Shipping Description: Does not apply to non-bulk oil shipping.
Identification Number: Not applicable.
Hazard Classification: Not applicable.
Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

IMDG Information
This material is not classified as dangerous under IMDG regulations.

IATA Information
This material is not classified as dangerous under IATA regulations.

SECTION 15) REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
<th>% By Weight</th>
<th>Regulation List</th>
</tr>
</thead>
<tbody>
<tr>
<td>0064742-58-1</td>
<td>LUBRICATING OILS (PETROLEUM), HYDROTREATED SPENT</td>
<td>84% - 100%</td>
<td>DSL,SARA312,TSCA,TX_ESL,OSHA</td>
</tr>
<tr>
<td>0064742-55-8</td>
<td>PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT PARAFFINIC</td>
<td>0 - 0.1 %</td>
<td>DSL,SARA312,TSCA,TX_ESL,OSHA</td>
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<td>0072623-86-0</td>
<td>Severly hydrotreated paraffinic oil and additive</td>
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<td>0000122-39-4</td>
<td>DIPHENYLAMINE</td>
<td>0 - 0.1 %</td>
<td>DSL,SARA312,TSCA,TX_ESL,ACGIH</td>
</tr>
<tr>
<td>0000091-20-3</td>
<td>NAPHTHALENE</td>
<td>0 - 0.1 %</td>
<td>SARA313, DSL, CERCLA, HAPS, SARA312, TSCA, RCRA, TX, ESL, ACGIH, CA, Prop65 - California Proposition 65, CA, Prop65_Type_Toxicity_Cancer - CA, Proposition65_Type_Toxicity_Cancer, OSHA</td>
</tr>
</tbody>
</table>
Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

NFPA

Version 1.0:
Revision Date: Jun 14, 2017
Version 1.0

DISCLAIMER

This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

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