## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product information**

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Product Name</td>
<td>Synfluid® PAO 2.5 cSt</td>
</tr>
<tr>
<td>Material</td>
<td>1079862, 1079691</td>
</tr>
<tr>
<td>Use</td>
<td>Synthetic Lubricants</td>
</tr>
<tr>
<td>Company</td>
<td>Chevron Phillips Chemical Company LP</td>
</tr>
<tr>
<td></td>
<td>10001 Six Pines Drive</td>
</tr>
<tr>
<td></td>
<td>The Woodlands, TX 77380</td>
</tr>
<tr>
<td>Emergency telephone:</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>866.442.9628 (North America)</td>
</tr>
<tr>
<td></td>
<td>1.832.813.4984 (International)</td>
</tr>
<tr>
<td>Transport</td>
<td>CHEMTREC 800.424.9300 or 703.527.3887(int'l)</td>
</tr>
<tr>
<td></td>
<td>Asia: +800 CHEMCALL (+800 2436 2255) China:</td>
</tr>
<tr>
<td></td>
<td>EUROPE: BIG +32.14.584545 (phone) or +32.14</td>
</tr>
<tr>
<td></td>
<td>South America SOS-Cotec Inside Brazil:</td>
</tr>
<tr>
<td></td>
<td>0800.111.767 Outside Brazil: +55.19.3467.1600</td>
</tr>
<tr>
<td>Responsible Department</td>
<td>Product Safety and Toxicology Group</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:SDS@CPChem.com">SDS@CPChem.com</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.CPChem.com">www.CPChem.com</a></td>
</tr>
</tbody>
</table>

## SECTION 2: Hazards identification

### Classification of the substance or mixture

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

#### Emergency Overview

| Danger                      | Physical state: Liquid | Color: Clear, colorless | Odor: Odorless          |
|                            | OSHA Hazards            | Aspiration hazard, Harmful by inhalation. |

Classification:

- Acute toxicity, Category 4, Inhalation
- Aspiration hazard, Category 1
Labeling

Symbol(s): [Image of hazard symbols]

Signal Word: Danger

Hazard Statements: H304: May be fatal if swallowed and enters airways. H332: Harmful if inhaled.

Precautionary Statements: Prevention:
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P331 Do NOT induce vomiting.

Storage:
P405 Store locked up.

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

Carcinogenicity:

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3: Composition/information on ingredients

Synonyms: Polyalphaolefin

Molecular formula: UVCB

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Dodecene, Dimer Hydrogenated</td>
<td>151006-61-0</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice: Move out of dangerous area. Show this material safety data

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If inhaled: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point: 186 °C (367 °F)
Method: Cleveland Open Cup

Autoignition temperature: 324 °C (615 °F)

Unsuitable extinguishing media: High volume water jet.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and explosion protection: Normal measures for preventive fire protection.

SECTION 6: Accidental release measures

Personal precautions: Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide
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**Sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.**

**Advice on protection against fire and explosion:**  
Normal measures for preventive fire protection.

**Storage**

**Requirements for storage areas and containers:**  
Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

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**SECTION 8: Exposure controls/personal protection**

**Hazardous components without workplace control parameters**

**Engineering measures**

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**Personal protective equipment**

**Respiratory protection:**  
Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection:**  
The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Eye protection:**  
Eye wash bottle with pure water. Tightly fitting safety goggles.

**Skin and body protection:**  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Protective suit. Safety shoes.

**Hygiene measures:**  
When using do not eat or drink. When using do not smoke.

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Wash hands before breaks and at the end of workday.

### SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

**Appearance**

- Physical state: Liquid
- Color: Clear, colorless
- Odor: Odorless

**Safety data**

- Flash point: 186 °C (367 °F)
  - Method: Cleveland Open Cup
- Lower explosion limit: Not applicable
- Upper explosion limit: Not applicable
- Oxidizing properties: no
- Autoignition temperature: 324 °C (615 °F)
- Molecular formula: UVCB
- Molecular weight: Varies
- pH: Not applicable
- Freezing point: -52 °C (-62 °F)
- Boiling point/boiling range: 277 °C (531 °F)
- Vapor pressure: 1.00 MMHG
  - at 150 °C (302 °F)
- Relative density: 0.81
  - at 15.6 °C (60.1 °F)
- Density: 806.8 g/l
- Water solubility: Soluble in hydrocarbon solvents; insoluble in water.
- Partition coefficient: n-octanol/water
  - log Pow: > 4.82
  - at 21 °C (70 °F)
- Viscosity, kinematic: 8.3 cSt
  - at 40 °C (104 °F)
- Relative vapor density: 10
  - (Air = 1.0)
- Evaporation rate: No data available
SECTION 10: Stability and reactivity

**Chemical stability**: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Possibility of hazardous reactions**
- **Conditions to avoid**: No data available.
- **Other data**: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

**Acute oral toxicity**
- **1-Dodecene, Dimer Hydrogenated**: LD50 Oral: > 5,000 mg/kg
  - Species: Rat
  - Test substance: yes

**Acute inhalation toxicity**
- **1-Dodecene, Dimer Hydrogenated**: LC50: 1.71 mg/l
  - Exposure time: 4 h
  - Species: Rat
  - Sex: female
  - Test atmosphere: dust/mist
  - Test substance: yes

- **LC50**: > 5.06 mg/l
  - Exposure time: 4 h
  - Species: Rat
  - Sex: male
  - Test atmosphere: dust/mist
  - Test substance: yes

**Acute dermal toxicity**
- **1-Dodecene, Dimer Hydrogenated**: LD50 Dermal: >2000 milligram per kilogram
  - Species: Rat
  - Test substance: yes

**Skin irritation**
- **1-Dodecene, Dimer Hydrogenated**: No skin irritation

**Eye irritation**
- **1-Dodecene, Dimer Hydrogenated**: No eye irritation

**Sensitization**
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1-Dodecene, Dimer Hydrogenated: Did not cause sensitization on laboratory animals.

Repeated dose toxicity

1-Dodecene, Dimer Hydrogenated: Species: Rat
Application Route: oral gavage
Dose: 0 up to 1000 mg/kg
Exposure time: 28 day
Number of exposures: daily
NOEL: 1,000 mg/kg

Aspiration toxicity

1-Dodecene, Dimer Hydrogenated: May be fatal if swallowed and enters airways.

Synfluid® PAO 2.5 cSt Further information: Solvents may degrease the skin.

SECTION 12: Ecological information

Toxicity to fish

1-Dodecene, Dimer Hydrogenated: LL50: > 1,000 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.

Toxicity to daphnia and other aquatic invertebrates

1-Dodecene, Dimer Hydrogenated: EL50: > 1,000 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.

Toxicity to algae

1-Dodecene, Dimer Hydrogenated: EbC50: > 1,000 mg/l
Exposure time: 96 h
Species: Selenastrum capricornutum (algae)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.

Biodegradability

1-Dodecene, Dimer Hydrogenated: Expected to be inherently biodegradable.

Ecotoxicology Assessment
SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.
Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product:
- Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging:
- Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).
Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
- NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
- NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
- NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
- NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
- NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.
ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>National legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SARA 311/312 Hazards</strong></td>
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<tr>
<td><strong>CERCLA Reportable Quantity</strong></td>
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<tr>
<td><strong>SARA 302 Reportable Quantity</strong></td>
</tr>
<tr>
<td><strong>SARA 302 Threshold Planning Quantity</strong></td>
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<tr>
<td><strong>SARA 304 Reportable Quantity</strong></td>
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<td><strong>SARA 313 Ingredients</strong></td>
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</table>

Clean Air Act

<table>
<thead>
<tr>
<th>Ozone-Depletion Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).</td>
</tr>
</tbody>
</table>

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
Synfluid® PAO 2.5 cSt

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489).

US State Regulations

Pennsylvania Right To Know : No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know : No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Ingredients : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Europe REACH</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Switzerland CH INV</td>
<td>Not in compliance with the inventory</td>
</tr>
<tr>
<td>United States of America TSCA</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Canada DSL</td>
<td>On the inventory, or in compliance with the inventory</td>
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<tr>
<td>Australia AICS</td>
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<tr>
<td>New Zealand NZIoC</td>
<td>Not in compliance with the inventory</td>
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<tr>
<td>Japan ENCS</td>
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<tr>
<td>Korea KECI</td>
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<tr>
<td>Philippines PICCS</td>
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</tr>
<tr>
<td>China IECSC</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

NFPA Classification : Health Hazard: 1
                      : Fire Hazard: 1
                      : Reactivity Hazard: 0

Further information

Legacy SDS Number : 5939

NSF H1, HX-1 Registered, meets USDA 1998 H1 Guidelines
Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

<table>
<thead>
<tr>
<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
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<td>CAS</td>
<td>Chemical Abstract Service</td>
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<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<td>EC50</td>
<td>Effective Concentration</td>
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<td>No Observed Effect Concentration</td>
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<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
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<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
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<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
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<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
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<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<td>GHS</td>
<td>Globally Harmonized System</td>
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<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
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<td>&gt;=</td>
<td>Greater Than or Equal To</td>
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<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<td>IC50</td>
<td>Inhibition Concentration 50%</td>
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<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
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<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<td>TLV</td>
<td>Threshold Limit Value</td>
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<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
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<td>TWA</td>
<td>Time Weighted Average</td>
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<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
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<td>TSCA</td>
<td>Toxic Substance Control Act</td>
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<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
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<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
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<td>Less Than or Equal To</td>
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<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<td>LC50</td>
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</table>

SDS Number:100000013639