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

1.1

Product information

Product Name: Synfluid® PAO 4 cSt
Material: 1111739, 1111738, 1111733, 1079673, 1079928, 1079872, 1079835, 1079712, 1079702

EC-No.Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index No.</th>
<th>Legal Entity Registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Decene, homopolymer, hydrogenated</td>
<td>68037-01-4 500-183-1</td>
<td>Chevron Phillips Chemical Company LP 01-2119486452-34-0000</td>
</tr>
<tr>
<td>1-Decene, homopolymer, hydrogenated</td>
<td>68037-01-4 500-183-1</td>
<td>Chevron Phillips Chemicals International NV 01-2119486452-34-0006</td>
</tr>
<tr>
<td>1-Decene, homopolymer, hydrogenated</td>
<td>68037-01-4 500-183-1</td>
<td>Chevron Phillips Chemical Company LP 01-2119486452-34-0000</td>
</tr>
</tbody>
</table>

1.2

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

Relevant Identified Uses Supported: Manufacture
Use as an intermediate
Formulation
Use in coatings – industrial
Use in coatings – professional
Use in Coatings - Consumer
Lubricants - Industrial
Lubricants - Professional
Lubricants - Consumer
Metal working fluids / rolling oils - Industrial
Metal working fluids / rolling oils – Professional
Functional Fluids - Industrial
Functional Fluids - Professional
Functional Fluids - Consumer
Use in polymer production – industrial
Agrochemical uses
Other consumer uses
Synfluid® PAO 4 cSt

1.3 Details of the supplier of the safety data sheet

Company: Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Local: Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vinci laan 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Technical Information: (832) 813-4862
Responsible Party: Product Safety Group
Email: sds@cpchem.com

1.4 Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
CHEMTREC 800.424.9300 or 703.527.3887 (international)
Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (tel fax)
Mexico CHEMTREC 01-800-681-9531 (24 hours)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
Argentina: +(54)-1159839431

Responsible Department: Product Safety and Toxicology Group
E-mail address: SDS@CPChem.com
Website: www.CPChem.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Aspiration hazard, Category 1
H304: May be fatal if swallowed and enters airways.

2.2 Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

Signal Word: Danger

Hazard Statements: H304 May be fatal if swallowed and enters airways.
Precautionary Statements:

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.

Storage:
P405 Store locked up.

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

Hazardous ingredients which must be listed on the label:
- 68037-01-4 1-Decene, homopolymer, hydrogenated

SECTION 3: Composition/information on ingredients

3.1 - 3.2 Substance or Mixture

Synonyms: Polyalphaolefin PAO

Molecular formula: UVCB

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No.</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [wt%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Decene, homopolymer, hydrogenated</td>
<td>68037-01-4</td>
<td>Asp. Tox. 1; H304</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>500-183-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

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: Do not ingest. If swallowed then seek immediate medical assistance. 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: 219 °C (426 °F)
   Method: Cleveland Open Cup

Autoignition temperature: 343 °C (649 °F)

5.1 Extinguishing media

Unsuitable extinguishing media: High volume water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

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

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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.

6.3 Methods and materials for containment and cleaning up

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.

6.4 Reference to other sections

Reference to other sections: For personal protection see section 8. For disposal considerations see section 13.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling

Advice on safe handling: Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

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

7.2 Conditions for safe storage, including any incompatibilities

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.

German storage class: Combustible liquids

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

DE

<table>
<thead>
<tr>
<th>Inhaltsstoffe</th>
<th>Grundlage</th>
<th>Wert</th>
<th>Zu überwachende Parameter</th>
<th>Bemerkung</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAO 4 - 1-Decene, homopolymer, hydrogenated</td>
<td>DE TRGS 900</td>
<td>AGW</td>
<td>5 mg/m³</td>
<td>DFG, Y, Alveolengängige Fraktion</td>
</tr>
</tbody>
</table>

DFG Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)
Y Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden

8.2 Exposure controls

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 / P100. 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. Wash hands before breaks and at the end of workday.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Form : Liquid
Physical state : Liquid
Color : Clear, Colorless
Odor : Odorless

Safety data
Flash point : 219 °C (426 °F)
Method: Cleveland Open Cup

Autoignition temperature : 343 °C (649 °F)

Molecular formula : UVCB

Boiling point/boiling range : 414 °C (777 °F)

Vapor pressure : 1,70 MMHG
at 177 °C (351 °F)

Relative density : 0,82
at 15,6 °C (60,1 °F)
## Synfluid® PAO 4 cSt

### Version 3.5

#### Viscosity, kinematic

<table>
<thead>
<tr>
<th>Viscosity, kinematic</th>
<th>16 cSt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>at 37.8 °C (100,0 °F)</td>
</tr>
</tbody>
</table>

| Evaporation rate     | No data available                        |

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

- Stable at normal ambient temperature and pressure.

#### 10.2 Chemical stability

- This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

- **Hazardous reactions**: Further information: No decomposition if stored and applied as directed.

#### 10.4 Conditions to avoid

- No data available.

#### 10.5 Materials to avoid

- No data available.

#### 10.6 Other data

- No decomposition if stored and applied as directed.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Synfluid® PAO 4 cSt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td>LD50: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Species: Rat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Synfluid® PAO 4 cSt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
</tr>
<tr>
<td>LC50: &gt; 5,2 mg/l</td>
</tr>
<tr>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td>Species: Rat</td>
</tr>
<tr>
<td>Sex: male and female</td>
</tr>
<tr>
<td>Test atmosphere: dust/mist</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Synfluid® PAO 4 cSt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
</tr>
<tr>
<td>LD50: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Species: Rat</td>
</tr>
</tbody>
</table>
### Synfluid® PAO 4 cSt

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skin irritation</strong></td>
<td>No skin irritation</td>
</tr>
<tr>
<td><strong>Eye irritation</strong></td>
<td>No eye irritation</td>
</tr>
<tr>
<td><strong>Sensitization</strong></td>
<td>1-Decene, homopolymer, hydrogenated Classification: Did not cause sensitization on laboratory animals.</td>
</tr>
<tr>
<td><strong>Aspiration toxicity</strong></td>
<td>May be fatal if swallowed and enters airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.</td>
</tr>
<tr>
<td><strong>CMR effects</strong></td>
<td>1-Decene, homopolymer, hydrogenated Carcinogenicity: Not classifiable as a human carcinogen. Mutagenicity: Animal testing did not show any mutagenic effects. Teratogenicity: Did not show teratogenic effects in animal experiments. Reproductive toxicity: No toxicity to reproduction</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Ecotoxicity effects**

**Toxicity to fish**
- LC50: > 1.000 mg/l
- Exposure time: 96 h
- Species: Salmo gairdneri (Rainbow trout)

- LC50: > 750 mg/l
- Exposure time: 96 h
- Species: Pimephales promelas (fathead minnow)

**Toxicity to daphnia and other aquatic invertebrates**
- EC50: 190 mg/l
- Exposure time: 48 h
- Species: Daphnia magna (Water flea)

**Toxicity to algae**
- NOELR: 1.000 mg/l
- Exposure time: 72 h
- Species: Scenedesmus capricornutum (fresh water algae)
- Static test Method: OECD Test Guideline 201
12.2 Persistence and degradability

Biodegradability

1-Decene, homopolymer, hydrogenated : Expected to be inherently biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation

1-Decene, homopolymer, hydrogenated : This material is not expected to bioaccumulate.

12.4 Mobility in soil

Mobility

1-Decene, homopolymer, hydrogenated : No data available

12.5 Results of PBT and vPvB assessment

Results of PBT assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological information : No data available

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : This material is not expected to be harmful to aquatic organisms.

Long-term (chronic) aquatic hazard : This material is not expected to be harmful to aquatic organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 14: Transport information

14.1 - 14.7
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
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National legislation

15.2 Chemical Safety Assessment
Components: 1-Decene, homopolymer, hydrogenated
A Chemical Safety Assessment has been carried out for this substance.

Major Accident Hazard Legislation: ZEU_SEVES3
Update: Not applicable

Other Registrations
Regulation
Danish PR number: 4155107

Notification status
Europe REACH: On the inventory, or in compliance with the inventory
Switzerland CH INV: On the inventory, or in compliance with the inventory
United States of America (USA) TSCA: On or in compliance with the active portion of the TSCA inventory
Canada DSL: All components of this product are on the Canadian DSL
Australia AICS: On the inventory, or in compliance with the inventory
New Zealand NZIoC: On the inventory, or in compliance with the inventory Notification number: HSR002606
Japan ENCS: On the inventory, or in compliance with the inventory
Korea KECI: All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem’s notifications or if the Importer of Record themselves notified the substances.

Philippines PICCS: On the inventory, or in compliance with the inventory
China IECSC: On the inventory, or in compliance with the inventory
Taiwan TCSI: On the inventory, or in compliance with the inventory
NFPA Classification: Health Hazard: 1
Fire Hazard: 1
Reactivity Hazard: 0

Further information
Legacy SDS Number: 3332

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.

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EC50%</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
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<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
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<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
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<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
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<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<td>OSHA</td>
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<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
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<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<td>RCRA</td>
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<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
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<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
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SDS Number: 100000010950
<table>
<thead>
<tr>
<th>ENCS</th>
<th>Japan, Inventory of Existing and New Chemical Substances</th>
<th>TSCA</th>
<th>Toxic Substance Control Act</th>
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<tbody>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
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<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<td>LC50</td>
<td>Lethal Concentration 50%</td>
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**Full text of H-Statements referred to under sections 2 and 3.**

H304 May be fatal if swallowed and enters airways.