SAFETY DATA SHEET

Cyclohexane
Version 2.5
Revision Date 2019-11-19

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

Product information
Product Name: Cyclohexane
Material: 1015388, 1098296, 1080331, 1059057, 1026806, 1025303, 1026803, 1026805

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

Local: CHEVRON PHILLIPS CHEMICALS ASIA PTE. LTD.
C/O DONG WOO CORPORATION
#B-2601,JEONGJAIL-RO,
BUNDANG-GU,SEONGNAMI-SI,
GYEONGGI-DO,13557
SOUTH KOREA
Telephone no.: +612-9186-1132

Emergency telephone:
Health: 866.442.9628 (North America)
1.832.813.4984 (International)
Transport:
CHEMTREC 800.424.9300 or 703.527.3887(int'l)
Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
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

Classification of the substance or mixture
Standards for classification and labeling of chemical substances and material safety data sheet (ministry of employment and labor public notice No. 2016-19) (GHS 2011)
Cyclohexane

SAFETY DATA SHEET

Classification

: Flammable liquids, Category 2
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2
Reproductive toxicity, Category 2
Specific target organ toxicity - single exposure, Category 2, blood vessel system
Specific target organ toxicity - single exposure, Category 3, Respiratory system, Central nervous system
Aspiration hazard, Category 1
Short-term (acute) aquatic hazard, Category 1

Labeling

Symbol(s): 

Signal Word: Danger

Hazard Statements: 
H225: Highly flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H371: May cause damage to organs (blood vessel system).
H400: Very toxic to aquatic life.

Precautionary Statements: 

Prevention: 
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash the contact area thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: 
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
**Cyclohexane**

**Section 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Not Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>C6H12</td>
</tr>
<tr>
<td>Chemical name</td>
<td>CAS-No.</td>
</tr>
<tr>
<td></td>
<td>Concentration</td>
</tr>
<tr>
<td></td>
<td>KECI Number</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
</tr>
</tbody>
</table>

**Section 4: First aid measures**

**General advice**: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.

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

**In case of skin contact**: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

**In case of eye contact**: Flush eyes with water as a precaution.

**If swallowed**: Keep respiratory tract clear. Do NOT induce vomiting. Do not...
Cyclohexane

SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>-18.3°C (-0.9°F) (Method: closed cup)</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>260°C (500°F)</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>High volume water jet.</td>
</tr>
<tr>
<td>Specific hazards during firefighting</td>
<td>Do not allow run-off from fire fighting to enter drains or water courses.</td>
</tr>
<tr>
<td>Special protective equipment for firefighters</td>
<td>Wear self-contained breathing apparatus for firefighting if necessary.</td>
</tr>
<tr>
<td>Further information</td>
<td>Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.</td>
</tr>
<tr>
<td>Fire and explosion protection</td>
<td>Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon Dioxide. Carbon oxides.</td>
</tr>
</tbody>
</table>

SECTION 6: Accidental release measures

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>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.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>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).</td>
</tr>
</tbody>
</table>
Cyclohexane

SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient. Review all operations, which have the potential to generating and accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106 “Flammable and Combustible Liquids”; National Fire Protection Association (NFPA 77), “Recommended Practice on Static Electricity”; and/or the American Petroleum Institute (API) Recommended Practice 2003, “Protection Against Ignitions Arising Out of Static, Lightning, and stray Currents”.

Advice on protection against fire and explosion: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers: No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>KR</th>
<th>Components</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>KR OEL</td>
<td>TWA</td>
<td>200 ppm.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 Organic Vapors. 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: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene measures : When using do not eat or drink. When using do not smoke. 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 : Colorless
Odor : chlorform-like, irritating

Safety data
Flash point : -18.3°C (-0.9°F)
   Method: closed cup
Lower explosion limit : 1.3 %(V)
Upper explosion limit : 8 %(V)
Oxidizing properties : no
Autoignition temperature : 260°C (500°F)
Molecular formula : C6H12
Molecular weight : 84.18 g/mol
pH : Not applicable

SDS Number: 100000068314 6/14
# Cyclohexane

SAFETY DATA SHEET

**Version 2.5**

**Revision Date 2019-11-19**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pour point</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>6.59°C (43.86°F)</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>80.7°C (177.3°F)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>3.26 PSI</td>
</tr>
<tr>
<td></td>
<td>at 37.8°C (100.0°F)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>at 15.6 °C (60.1 °F)</td>
</tr>
<tr>
<td>Density</td>
<td>0.8 g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in hydrocarbon solvents, natural oils, fats, and waxes; insoluble in water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>0.953 cSt</td>
</tr>
<tr>
<td></td>
<td>at 37.8°C (100.0°F)</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>(Air = 1.0)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>1.95</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>&gt; 99 %</td>
</tr>
<tr>
<td>Conductivity</td>
<td>&lt; 5 pSm</td>
</tr>
</tbody>
</table>

## SECTION 10: Stability and reactivity

**Reactivity**

Stable at normal ambient temperature and pressure.

**Chemical stability**

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

**Possibility of hazardous reactions**

**Hazardous reactions**

Hazardous reactions: Hazardous polymerization does not occur.

Further information: No decomposition if stored and applied as directed.

Hazardous reactions: Vapors may form explosive mixture with air.

**Conditions to avoid**

Heat, flames and sparks.
Materials to avoid: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous decomposition products: Carbon Dioxide
Carbon oxides

Other data: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Acute oral toxicity
Cyclohexane: LD50: > 5,000 mg/kg
Species: Rat
Sex: male and female
Method: OECD Test Guideline 401

Acute inhalation toxicity
Cyclohexane: LC50: >32,880 mg/m3 Expiration time: 4 h
Species: Rat
Sex: male and female
Test atmosphere: vapor
Method: OECD Test Guideline 403

Cyclohexane Skin irritation: May cause skin irritation in susceptible persons.

Cyclohexane Eye irritation: No adverse effects expected. Vapors may cause irritation to the eyes, respiratory system and the skin.

Sensitization
Cyclohexane: Did not cause sensitization on laboratory animals.

Repeated dose toxicity
Cyclohexane: Species: Rat
 Application Route: Inhalation
 Dose: 0, 500, 2000, 7000 ppm
 Exposure time: 90 day
 Number of exposures: 6 h/d, 5 d/wk
 NOEL: 2000 ppm
### Cyclohexane

#### Species: Rat, Male and female
- **Sex:** Male and female
- **Application Route:** Inhalation
- **Dose:** 0, 500, 2,000, 7000 ppm
- **Exposure time:** 13-14 wk
- **Number of exposures:** 6 hr/d, 5 d/wk
- **NOEL:** 7000 ppm

#### Species: Mouse, Male and female
- **Sex:** Male and female
- **Application Route:** Inhalation
- **Dose:** 0, 500, 2000, 7000 ppm
- **Exposure time:** 13-14 wk
- **Number of exposures:** 6 hr/d, 5 d/wk
- **NOEL:** 2000 ppm

#### Target Organs: Blood

---

### Genotoxicity in vitro

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Test Type: Ames test</td>
<td>Metabolic activation: with and without metabolic activation</td>
</tr>
<tr>
<td></td>
<td>Method: Mutagenicity (Escherichia coli - reverse mutation assay)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test Type: Mouse lymphoma assay</td>
<td>Metabolic activation: with and without metabolic activation</td>
</tr>
<tr>
<td></td>
<td>Method: OECD Guideline 476</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test Type: Mouse lymphoma assay</td>
<td>Metabolic activation: with and without metabolic activation</td>
</tr>
<tr>
<td></td>
<td>Method: OECD Guideline 476</td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

---

### Genotoxicity in vivo

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Species</th>
<th>Cell type</th>
<th>Dose</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Test Type: Cytogenetic assay</td>
<td>Species: Rat</td>
<td>Cell type: Bone marrow</td>
<td>96.6, 307.2, 10141.6 ppm</td>
</tr>
</tbody>
</table>

---

### Reproductive toxicity

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Species</th>
<th>Application Route</th>
<th>Dose</th>
<th>Number of exposures</th>
<th>Method</th>
<th>NOAEL Parent</th>
<th>NOAEL F1</th>
<th>NOAEL F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td></td>
<td>Inhalation</td>
<td>0, 500, 2000, 7000 ppm</td>
<td>6 hr/d, 5 d/wk</td>
<td>OECD Test Guideline 416</td>
<td>500 ppm</td>
<td>7000 ppm</td>
<td>7000 ppm</td>
</tr>
</tbody>
</table>

---

### Developmental Toxicity

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Species</th>
<th>Application Route</th>
<th>Dose</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td></td>
<td>Inhalation</td>
<td>0, 500, 2,000, 7,000 PPM</td>
<td></td>
</tr>
</tbody>
</table>

---
Cyclohexane

Number of exposures: 6 hr/d  
Test period: GD 6-15  
Method: OECD Guideline 414  
NOAEL Teratogenicity: 7,000 ppm  
NOAEL Maternal: 500 ppm

Species: Rabbit  
Application Route: Inhalation  
Dose: 0, 500, 2,000, 7,000 PPM  
Number of exposures: 6 hr/d  
Test period: GD 6-18  
Method: OECD Guideline 414  
NOAEL Teratogenicity: 7,000 ppm  
NOAEL Maternal: 500 ppm

Cyclohexane  
**Aspiration toxicity**: 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.

**CMR effects**  
Cyclohexane  
Carcinogenicity: Not classifiable as a human carcinogen.  
Mutagenicity: Did not show mutagenic effects in animal experiments.  
Teratogenicity: Did not show teratogenic effects in animal experiments.  
Reproductive toxicity: No toxicity to reproduction

Cyclohexane  
**Further information**: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

### SECTION 12: Ecological information

**Ecotoxicity effects**  
**Toxicity to fish**  
Cyclohexane  
LC50: 4.53 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 203

**Toxicity to daphnia and other aquatic invertebrates**  
Cyclohexane  
EC50: 0.9 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

**Toxicity to algae**
Cyclohexane

Cyclohexane : EbC50: 3.4 mg/l
Exposure time: 72 h
Species: Selenastrum capricornutum (algae)

NOEC: 0.925 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (microalgae)
Method: OECD Test Guideline 201

**M-Factor**
cyclohexane : M-Factor (Acute Aquat. Tox.) 1

**Biodegradability**
Cyclohexane : 77 %
Testing period: 28 d
Method: OECD Test Guideline 301
This material is expected to be readily biodegradable.

**Elimination information (persistence and degradability)**

**Bioaccumulation**
Cyclohexane : Bioconcentration factor (BCF): 167
This material is not expected to bioaccumulate.

**Mobility**
No data available

Results of PBT assessment
Cyclohexane : Non-classified PBT substance, Non-classified vPvB substance

**Additional ecological information**
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life with long lasting effects.

**Ecotoxicology Assessment**

Short-term (acute) aquatic hazard
Cyclohexane : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard
Cyclohexane : Very toxic to aquatic life with long lasting effects.

**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**

- The product should not be allowed to enter drains, water courses or the soil. 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. Do not burn, or use a cutting torch on, the empty drum.

### 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)

- UN1145, CYCLOHEXANE, 3, II, RQ (CYCLOHEXANE)

#### IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

- UN1145, CYCLOHEXANE, 3, II, (-18.3°C), MARINE POLLUTANT, (CYCLOHEXANE)

#### IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

- UN1145, CYCLOHEXANE, 3, II

#### ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

- UN1145, CYCLOHEXANE, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS, (CYCLOHEXANE)

#### RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

- UN1145, CYCLOHEXANE, 3, II, ENVIRONMENTALLY HAZARDOUS, (CYCLOHEXANE)

#### ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

- UN1145, CYCLOHEXANE, 3, II, ENVIRONMENTALLY HAZARDOUS, (CYCLOHEXANE)
Cyclohexane

Version 2.5

Revision Date 2019-11-19

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

**Other information**: Cyclohexane, S.T. 2, Cat. Y

**SECTION 15: Regulatory information**

**National legislation**

**Regulation under the Occupational Safety and Health Act**
A Material Safety Datasheet (MSDS) has to be prepared and provided for this product according to article 41 of ISHA.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Chemical name</th>
<th>Threshold limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful Substances</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Prohibited from Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmful Substances Required</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Permission for Manufacture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Chemical name</th>
<th>Threshold limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxic Chemicals</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Prohibited Chemicals</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Observational chemicals</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Restricted Chemicals</td>
<td>Not relevant</td>
<td></td>
</tr>
<tr>
<td>Toxic Release Inventory</td>
<td>cyclohexane</td>
<td>&gt; 1 %</td>
</tr>
</tbody>
</table>

**Dangerous Substances Safety Management Act**

Dangerous Substances: Flammable liquids, Type 1 petroleums, Water insoluble liquid

Safety Management Act:

**Notification status**

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe REACH</td>
<td>This product is in full compliance according to REACH regulation 1907/2006/EC.</td>
</tr>
<tr>
<td>Switzerland CH INV</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>United States of America (USA)</td>
<td>On or in compliance with the active portion of the TSCA inventory</td>
</tr>
<tr>
<td>Canada DSL</td>
<td>All components of this product are on the Canadian DSL</td>
</tr>
<tr>
<td>Australia AICS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>New Zealand NZIoC</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Japan ENCS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Korea KECI</td>
<td>A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance.</td>
</tr>
<tr>
<td>Philippines PICCS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>China IECSC</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Taiwan TCSI</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
</tbody>
</table>
SECTION 16: Other information

Further information

Legacy SDS Number : 895

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>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
</tbody>
</table>

SDS Number:100000068314