1. IDENTIFICATION

Product identifier

Product code: HP532
Product Name: CYCLOHEXANE, HPLC GRADE

Other means of identification
Synonyms:
- Benzene, hexahydro-
- Hexahydrobenzene
- Hexamethylene
- Hexanaphthene
- Ciclohexano (Spanish)

CAS #: 110-82-7
RTECS #: GU6300000
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: Solvent.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| Acute toxicity - Inhalation (Vapors) | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2B |
| Specific target organ toxicity (single exposure) | Category 3 |
| Aspiration toxicity | Category 1 |
| Flammable liquids | Category 2 |

Label elements

Danger

Product code: HP532
Product name: CYCLOHEXANE, HPLC GRADE
Hazard statements
Harmful if inhaled
Causes skin irritation
Causes eye irritation
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Highly flammable liquid and vapor

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Avoid breathing mist or vapors
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response
In case of fire: Use CO2, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
If skin irritation occurs: Get medical attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or physician
Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>100</td>
</tr>
</tbody>
</table>

Product code: HP532  Product name: CYCLOHEXANE, HPLC GRADE
4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms
- Causes skin irritation
- Causes eye irritation
- May cause drowsiness or dizziness
- Aspiration hazard if swallowed - can enter the lungs and cause damage
- May cause digestive (gastrointestinal) tract irritation
- Ingestion may cause nausea, vomiting, and diarrhea
- May cause chemical pneumonitis
- Central nervous system effects
- It may affect the kidneys
- May affect the liver

Indication of any immediate medical attention and special treatment needed

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products: Carbon monoxide. Carbon dioxide (CO2).

Specific hazards: Highly flammable. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier
than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Fire may produce irritating, corrosive and/or toxic gases.

**Special Protective Actions for Firefighters**

**Specific Methods:**
No information available

**Special Protective Equipment for Firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:**
Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not let this chemical enter the environment. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment**
Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up**
Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Technical Measures/Precautions:**
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

**Safe Handling Advice:**
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.
### Incompatible Materials:
Oxidizing agents
Dinitrogen tetraoxide

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

#### National occupational exposure limits

##### United States

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>1050 mg/m³ TWA</td>
<td>300 ppm TWA</td>
<td>100 ppm TWA</td>
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##### Canada

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<th>Canada - British Columbia</th>
<th>Canada - Ontario</th>
<th>Canada - Quebec</th>
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<tbody>
<tr>
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<td>110-82-7</td>
<td>100 ppm TWA</td>
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<td>None</td>
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</table>

##### Australia and Mexico

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<th>Mexico</th>
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</thead>
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<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>300 ppm STEL</td>
<td>100 ppm TWA</td>
</tr>
</tbody>
</table>

#### Appropriate engineering controls

**Engineering measures to reduce exposure:**
Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

#### Individual protection measures, such as personal protective equipment

**Personal Protective Equipment**

**Eye protection:**
Goggles

**Skin and body protection:**
Chemical resistant apron
Long sleeved clothing
Gloves

**Respiratory protection:**
Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:**
Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Odor:</td>
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<td></td>
<td></td>
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<tr>
<td><strong>Product code:</strong> HP532</td>
<td><strong>Product name:</strong> CYCLOHEXANE, HPLC GRADE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 10. STABILITY AND REACTIVITY

**Reactivity**
It can react vigorously, violently or explosively with oxidizers. When mixed hot with liquid dinitrogen tetraoxide an explosion can result.

**Chemical stability**

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Oxidizing agents
Dinitrogen tetraoxide

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

**Other Information**

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

### Properties

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<th>Value</th>
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<td>Molecular/Formula weight (g/mole)</td>
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<td>Flammability (solid, gas)</td>
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<td>Flash Point Tested according to</td>
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<tr>
<td>Closed cup</td>
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</tr>
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<td>Autoignition Temperature (°C/°F)</td>
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<td>Upper Explosion Limit (%)</td>
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<td>Melting point/range(°C/°F)</td>
<td>6.47 °C/43.6 °F</td>
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<td>Lower Explosion Limit (%)</td>
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<td>Boiling point/range(°C/°F)</td>
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<tr>
<td>Stability:</td>
<td>Stable under recommended storage conditions.</td>
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<tr>
<td>Possibility of Hazardous Reactions:</td>
<td>Hazardous polymerization does not occur</td>
</tr>
<tr>
<td>Incompatible Materials:</td>
<td>Oxidizing agents</td>
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<tr>
<td>Dinitrogen tetraoxide</td>
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<tr>
<td>Hazardous decomposition products:</td>
<td>Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.</td>
</tr>
<tr>
<td>Other Information:</td>
<td></td>
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<tr>
<td>Corrosivity:</td>
<td>No information available</td>
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<tr>
<td>Special Remarks on Corrosivity:</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Product code:** HP532  **Product name:** CYCLOHEXANE, HPLC GRADE
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Skin. Inhalation.

Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>LD50/oral/rat</th>
<th>LD50/oral/mouse</th>
<th>LD50/dermal/rabbit</th>
<th>LD50/dermal/rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>12705 mg/kg</td>
<td>813 mg/kg</td>
<td>&gt; 2000 mg/kg</td>
<td>No info avail.</td>
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<tr>
<td></td>
<td></td>
<td>Oral LD50 Rat(LOLI); &gt;5000 mg/kg (RTECS)</td>
<td>Dermal LD50Rabbit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LC50/inhalation/rat = 13.9 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/rabbit = 70000 mg/m³ 2 h
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = > 5000 mg/kg

LD50/oral/mouse =
Value - Acute Tox = 813 mg/kg

LD50/dermal/rabbit
Value - Acute Toxicity = > 2000 mg/kg

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat
VALUE-Vapor = 13.9 mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = 70000 mg/m³ 2 h
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. It may be absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation May cause irritation of respiratory tract. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May cause nausea and headache. It may affect respiration (respiratory depression, respiratory paralysis). It may affect behavior/central nervous system (ataxia, general anesthetic, drowsiness). It may affect behavior/central nervous system (convulsions/seizures). May affect
behaviour/central nervous system (central nervous system depression, somnolence, analgesia, headache, dizziness, weakness, fatigue, loss of coordination, personality changes and passing out). May affect vision (blurred vision). May affect the brain.

**Ingestion**

Aspiration hazard if swallowed. Aspiration into the lungs can cause chemical pneumonitis. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. It may affect behavior/central nervous system (drowsiness). May affect urinary system (kidneys).

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity**

Prolonged skin contact may defat the skin and produce dermatitis. Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated ingestion may affect the kidneys. Prolonged or repeated inhalation may cause central nervous system effects.

**Sensitization:**

No information available.

**Mutagenic Effects:**

May affect genetic material. Experiments with bacteria and/or yeast have shown mutagenic effects.

**Carcinogenic effects:**

Not considered carcinogenic.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
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</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

**ACGIH (American Conference of Governmental Industrial Hygienists)**

**IARC (International Agency for Research on Cancer)**

**NTP (National Toxicology Program)**

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

**Reproductive toxicity**

No data is available.

**Reproductive Effects:**

No information available.

**Developmental Effects:**

No information available.

**Teratogenic Effects:**

No information available.

**Specific Target Organ Toxicity**

**STOT - single exposure**

central nervous system.

**STOT - repeated exposure**

No information available.

**Target Organs:**


### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Ecotoxicity effects:**

Aquatic environment.

**Product code:** HP532  
**Product name:** CYCLOHEXANE, HPLC GRADE
Cyclohexane - 110-82-7

Algae/aquatic plants
EC50: >500mg/L (72h, Desmodesmus subspicatus)

Fish
LC50: 3.96 - 5.18mg/L (96h, Pimephales promelas)
LC50: 23.03 - 42.07mg/L (96h, Pimephales promelas)
LC50: 24.99 - 44.69mg/L (96h, Lepomis macrochirus)
LC50: 48.87 - 68.76mg/L (96h, Poecilia reticulata)

Crustacea
EC50: >400mg/L (24h, Daphnia magna)

Persistence and degradability: It is highly resistant to biodegradation

Bioaccumulative potential: Potential for bioconcentration in aquatic organisms is moderate.

Mobility in soil: No information available

Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>U056 ignitable waste</td>
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</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-No: UN1145
Proper Shipping Name: Cyclohexane
Hazard Class: 3
Subsidiary Class: No information available
Packing group: II
Emergency Response Guide Number: 128
Marine Pollutant: No data available
DOT RQ (lbs): 1000
Special Provisions: IB2, T4, TP1
Symbol(s): [DOT]: (R4) - Identifies a material that is a hazardous substance that has a reportable quantity (RQ) of 1000 pounds (454 Kilograms).
Description: UN1145, Cyclohexane, 3, II

TDG (Canada)

UN-No: UN1145
Proper Shipping Name: Cyclohexane
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No Information available
Description: UN1145, Cyclohexane, 3, II

ADR

UN Number: UN1145

Product code: HP532
Product name: CYCLOHEXANE, HPLC GRADE
Proper Shipping Name: Cyclohexane
Transport hazard class(es) 3
Packing group II
Subsidiary Risk: No information available
Description: UN1145, Cyclohexane, 3, II, ENVIRONMENTALLY HAZARDOUS

IMDG
UN-No: UN1145
Proper Shipping Name: Cyclohexane
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No information available
EMS: F-E
Description: UN1145, Cyclohexane, 3, II, Marine pollutant

RID
UN Number: UN1145
Proper Shipping Name: Cyclohexane
Transport hazard class(es) 3
Subsidiary Risk: 3
Packing Group: II
Description: UN1145, Cyclohexane, 3, II

ICAO (air)
UN-No: UN1145
Proper Shipping Name: Cyclohexane
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: UN1145, Cyclohexane, 3, II

IATA
UN Number: UN1145
Proper Shipping Name: Cyclohexane
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing Group: II
Precautionary Statements - Response 3H
Special Provisions: No information available
Description: UN1145, Cyclohexane, 3, II

15. REGULATORY INFORMATION

International Inventories

<table>
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<tr>
<th>Component</th>
<th>CAS No</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>China IECSC</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
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<td>Present KE-18562</td>
<td>Present (3)-2233</td>
<td>Present</td>
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<td>203-806-2</td>
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</table>

U.S. Regulations

Cyclohexane
Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0565
New Jersey (EHS) List: 0565 500 lb TPQ

Product code: HP532  Product name: CYCLOHEXANE, HPLC GRADE
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
  1000 lb RQ
  1 lb RQ
Louisiana Reportable Quantity List for Pollutants: 1000lbfinal RQ
454kgfinal RQ
California Directors List of Hazardous Substances: Present
FDA - 21 CFR - Total Food Additives 175.105, 176.200, 178.3620, 73.1
- List Sourced from EAFUS


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
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<tr>
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CERCLA/SARA

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<tr>
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<th>CAS No</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>1000 lb final RQ 454 kg final RQ</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>1.0 % de minimis concentration</td>
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U.S. TSCA

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<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<tr>
<td>Cyclohexane</td>
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Canada

WHIMIS 2015 - GHS Classifications

WHIMIS 2015 Hazard Classification Information:

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<th>Component</th>
<th>WHIMIS 2015 Hazard Classification</th>
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<tbody>
<tr>
<td>Cyclohexane</td>
<td>Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Aspiration hazard - Category 1: H304 May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

Canada Hazardous Products Regulation: This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Product code: HP532
Product name: CYCLOHEXANE, HPLC GRADE
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<table>
<thead>
<tr>
<th>Component</th>
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<th>CEPA Schedule I - Toxic Substances</th>
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</thead>
<tbody>
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<td>Cyclohexane</td>
<td>110-82-7</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

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<tr>
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**EU Classification**

**EU GHS - SV - CLP 1272/2008**

<table>
<thead>
<tr>
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<th>CAS No</th>
<th>EU GHS - SV - CLP (1272/2008)</th>
</tr>
</thead>
</table>

**R-phrase(s)**

- R11 - Highly flammable
- R38 - Irritating to skin
- R65 - Harmful: may cause lung damage if swallowed
- R67 - Vapors may cause drowsiness and dizziness.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**S-phrase(s)**

- S 9 - Keep container in a well-ventilated place.
- S16 - Keep away from sources of ignition - No smoking
- S25 - Avoid contact with eyes
- S33 - Take precautionary measures against static discharges
- S60 - This material and its container must be disposed of as hazardous waste
- S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
- S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>F; R11, Xi; R38, N; R50-53, Xn; R65, R67</td>
<td>No information</td>
<td>S9, S16, S25, S33, S60, S61, S62</td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Product code:** HP532  **Product name:** CYCLOHEXANE, HPLC GRADE
Indication of danger:
F - Highly flammable
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

16. OTHER INFORMATION

Preparation Date: 6/29/15
Revision date 07/17/2019
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet