

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.20.2017

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## Cyclohexane

### SECTION 1: Identification

#### Product identifier

**Product name:** Cyclohexane

**Product code:** S25292A

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Not determined or not applicable.

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

##### Manufacturer:

AquaPhoenix Scientific  
860 Gitts Run Road  
Hanover  
PA 17331  
(717) 632-1291

##### Supplier:

Fisher Science Education  
6771 Silver Crest Road  
Nazareth  
PA 18064  
800 955-1177

#### Emergency telephone number:

##### United States

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard identification

#### GHS classification:

Flammable liquids, category 2

Aspiration hazard, category 1

Skin irritation, category 2

Specific target organ toxicity - single exposure, category 3, central nervous system

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H225 Highly flammable liquid and vapor

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H336 May cause drowsiness or dizziness

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

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### Precautionary statements:

- 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/light/equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P264 Wash skin thoroughly after handling
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P271 Use only outdoors or in a well-ventilated area
- P273 Avoid release to the environment
- P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower
- P370+P378 In case of fire: Use agents recommended in section 5 for extinction
- P331 Do not induce vomiting
- P301+P310 If swallowed: Immediately call a poison center or doctor/physician
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P362 Take off contaminated clothing and wash before reuse
- P302+P352 If on skin: Wash with soap and water
- P332+P313 If skin irritation occurs: Get medical advice/attention
- 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
- P391 Collect spillage
- P405 Store locked up
- P403+P233 Store in a well ventilated place. Keep container tightly closed
- P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 110-82-7	Cyclohexane	100

**Additional Information:** None

## SECTION 4: First-aid measures

### Description of first-aid measures

#### General notes:

Not determined or not available.

#### After inhalation:

- Loosen clothing as necessary and position individual in a comfortable position
- Maintain an unobstructed airway
- Get medical advice/attention if you feel unwell

#### After skin contact:

- Rinse affected area with soap and water
- If symptoms develop or persist, seek medical attention

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Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist

### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention

### After ingestion:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists

### Most important symptoms and effects, both acute and delayed

#### Acute symptoms and effects:

Not determined or not available.

#### Delayed symptoms and effects:

Not determined or not available.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not available.

#### Notes for the doctor:

Not determined or not available.

## SECTION 5: Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

#### Unsuitable extinguishing media:

Do not use a water stream as an extinguisher

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors  
Vapors can flow to distant ignition sources and flashback  
Liquid is volatile and may generate an explosive atmosphere

### Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

### Special precautions:

Shut off sources of ignition  
Carbon monoxide and carbon dioxide may form upon combustion  
Heating causes a rise in pressure, risk of bursting and combustion

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing  
Beware of vapors accumulating to form explosive concentrations  
Vapors can accumulate in low areas

### Environmental precautions:

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Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing  
Use spark-proof tools and explosion-proof equipment  
Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)  
Dispose of contents / container in accordance with local regulations

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Use only with adequate ventilation.  
Avoid breathing mist or vapor.  
Do not eat, drink, smoke or use personal products when handling chemical substances.  
Take precautionary measures against electrostatic discharges.  
Use only non-sparking tools.

### Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.  
Protect from freezing and physical damage.  
Store in a cool, well-ventilated area.  
Store away from all ignition sources (open flames, hot surfaces, direct sunlight, spark sources).

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Cyclohexane	110-82-7	ACGIH TLV TWA 100 ppm
United States (OSHA)	Cyclohexane	110-82-7	OSHA PEL TWA 300 ppm
	Cyclohexane	110-82-7	OSHA PEL TWA 1050 mg/m <sup>3</sup>
NIOSH	Cyclohexane	110-82-7	NIOSH REL TWA 300 ppm
	Cyclohexane	110-82-7	NIOSH REL TWA 1050 mg/m <sup>3</sup>

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.  
Biological monitoring may also be appropriate for some substances.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.  
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

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Use explosion-proof ventilation equipment.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

### General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance (physical state, color):</b>	Clear, colorless liquid
<b>Odor:</b>	Sweet
<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	Not determined or not available.
<b>Melting/Freezing point:</b>	6.5°C
<b>Boiling point/range:</b>	81°C
<b>Flash point:</b>	-17.99°C (-0.38°F) - closed cup
<b>Evaporation rate:</b>	6.1 ( Butyl Actetate = 1)
<b>Flammability (solid, gaseous):</b>	Not determined or not available.
<b>Explosion limit upper:</b>	Not determined or not available.
<b>Explosion limit lower:</b>	Not determined or not available.
<b>Vapor pressure:</b>	104 mBar at 20°C
<b>Vapor density:</b>	2.90 (Air = 1)
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	0.770 g/cm <sup>3</sup>
<b>Solubilities:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not determined or not available.
<b>Auto/Self-ignition temperature:</b>	Not determined or not available.
<b>Decomposition temperature:</b>	Not determined or not available.
<b>Dynamic viscosity:</b>	Not determined or not available.
<b>Kinematic viscosity:</b>	.94 mPas at 20°C
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

### Other information

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### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

Stable under normal conditions of use and storage.

#### Possibility of hazardous reactions:

Vapours may form explosive mixture with air.

#### Conditions to avoid:

Store away from oxidizing agents, strong acids or bases. Incompatible materials, excess heat. Keep away from heat and sources of ignition.

#### Incompatible materials:

Strong acids. Strong bases. Strong oxidizing agents.

#### Hazardous decomposition products:

Carbon oxides (CO, CO<sub>2</sub>).

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Skin corrosion/irritation

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Cyclohexane	May cause skin irritation.

#### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

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**Substance data:** No data available.

### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (single exposure)

**Assessment:** May cause drowsiness or dizziness

**Product data:** No data available.

**Substance data:**

Name	Result
Cyclohexane	May cause drowsiness or dizziness.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

**Assessment:** May be fatal if swallowed and enters airways

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Cyclohexane	Pimephales promelas (fathead minnow) - 4.53 mg/l
	Daphnia magna (Water flea) - 0.9 mg/l - 48 h
	Pseudokirchneriella subcapitata (green algae) - 3.4 mg/l - 72 h

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

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**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.


### SECTION 13: Disposal considerations

#### Disposal methods:


It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

### SECTION 14: Transport information


#### Canadian Transportation of Dangerous Goods (TDG)

UN number	UN1145
UN proper shipping name	Cyclohexane
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None

#### International Maritime Dangerous Goods (IMDG)

UN number	UN1145
UN proper shipping name	Cyclohexane
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN1145
UN proper shipping name	Cyclohexane
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None

### SECTION 15: Regulatory information

#### Canada regulations



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### Domestic substances list (DSL):

110-82-7	Cyclohexane	Listed
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Non-domestic substances list (NDSL): Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-0-0

**HMIS:** 2-0-0-X

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**End of Safety Data Sheet**