

# SAFETY DATA SHEET

CYCLOHEXANONE

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Compilation date: 11/05/2015

Revision No: 1

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

### 1.1. Product identifier

**Product name:** CYCLOHEXANONE

**CAS number:** 108-94-1

**EINECS number:** 203-631-1

**Index number:** 606-010-00-7

**Product code:** GPS7861

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of substance / mixture:** Laboratory chemicals. Manufacture of substances.

### 1.3. Details of the supplier of the safety data sheet

Select School Supplies  
The Old Granary  
Berghill House  
Oswestry  
SY11 4PD  
01691 770366  
sales@selectschoolsupsupplies.co.uk



## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Flam. Liq. 3: H226; Acute Tox. 4: H302+312+332; Eye Dam. 1: H318; Eye Irrit. 2: H319;  
Skin Irrit. 2: H315

**Most important adverse effects:** Flammable liquid and vapour. Harmful if swallowed, in contact with skin or if inhaled.  
Causes skin irritation. Causes serious eye damage.

### 2.2. Label elements

#### Label elements under CLP:

**Hazard statements:** H226: Flammable liquid and vapour.

H302+312+332: Harmful if swallowed, in contact with skin or if inhaled.

H315: Causes skin irritation.

H318: Causes serious eye damage.

[cont...]

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**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS05: Corrosion

GHS07: Exclamation mark



**Precautionary statements:** P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

**Other hazards:** 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.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** CYCLOHEXANONE

**CAS number:** 108-94-1

**EINECS number:** 203-631-1

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor.

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

**Skin contact:** Irritation or pain may occur at the site of contact.

**Eye contact:** Causes serious eye damage

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Consult a doctor. Show this safety data sheet to the doctor in attendance.

[cont...]

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Carbon oxides.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

### 6.4. Reference to other sections

**Reference to other sections:** For waste disposal, see section 13.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool place. 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. Storage class (TRGS 510): Flammable liquids.

### 7.3. Specific end use(s)

**Specific end use(s):** No other specific uses stipulated other than the uses mentioned in section 1.2.

## Section 8: Exposure controls/personal protection

[cont...]

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## 8.1. Control parameters

### Workplace exposure limits:

### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	10 ppm	20 ppm	-	-

## 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

## 8.2. Exposure controls

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practise. Wash hands before breaks and at the end of the workday.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with application laws and good laboratory practises. Wash and dry hands. Full contact - Material: butyl rubber. Minimum layer thickness: 0.3mm. Break through time: 8hrs. Splash contact - Material: Nature/chloroprene. Minimum layer thickness: 0.6mm. Break through time: 35 min.

**Eye protection:** Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection:** Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Colourless

**Solubility in water:** 86 g/l at 20C

**Boiling point/range °C:** 155

**Melting point/range °C:** -47

**Flammability limits %: lower:** 1.1

**upper:** 9.4

**Flash point °C:** 44

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Autoflammability°C: 420

Relative density: 0.947

Part.coeff. n-octanol/water: log Pow: 0.81

Vapour pressure: 4.5 hPa at 20C

## 9.2. Other information

Other information: Relative vapour density - 3.39 (Air = 1.0) Surface tension - 35.05 mN/m at 20C

## Section 10: Stability and reactivity

### 10.1. Reactivity

Reactivity: No data available.

### 10.2. Chemical stability

Chemical stability: Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous reactions: No data available.

### 10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks

### 10.5. Incompatible materials

Materials to avoid: Oxidising agents. Plastics.

### 10.6. Hazardous decomposition products

Haz. decomp. products: No data available. In the event of fire: see section 5

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH DRM ING	Based on test data
Serious eye damage/irritation	OPT	Based on test data

### Symptoms / routes of exposure

**Skin contact:** Irritation or pain may occur at the site of contact.

**Eye contact:** Causes serious eye damage

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Other information:** RTECS: GW1050000 Prolonged or repeated exposure to skin causes defatting and dermatitis. Cough, shortness of breath, headache, nausea, vomiting, incoordination. Inhalation of high concentrations may cause; CNS depression. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
Daphnia magna	48H EC50	820	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Rapidly biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

### 12.4. Mobility in soil

**Mobility:** No data available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

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

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1915

### 14.2. UN proper shipping name

**Shipping name:** CYCLOHEXANONE

### 14.3. Transport hazard class(es)

**Transport class:** 3

### 14.4. Packing group

**Packing group:** III

[cont...]

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## 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

## 14.6. Special precautions for user

Tunnel code: D/E

Transport category: 3

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Specific regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** For this product a chemical safety assessment was not carried out.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H226: Flammable liquid and vapour.

H302+312+332: Harmful if swallowed, in contact with skin or if inhaled.

H315: Causes skin irritation.

H318: Causes serious eye damage.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.