

Safety Data Sheet

According to 91/155 EEC

Printing date 24.06.2009

Revision: 24.06.2009

1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** cyclohexanone

Manufacturer/Supplier:

Asiatic Chemicals Pakistan



Address

30-Mussa Market 2nd Floor,
Opp Sindh Madarsah
Shakrah-e-Liaquat

Mobile

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asiatic@asiatic.com.pk

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0092-21-3241554

2 Composition/information on ingredients

· **Chemical characterization:**

· **CAS No. Description**

108-94-1 cyclohexanone

· **Identification number(s)**

· **EINECS Number:** 203-631-1

· **Index number:** 606-010-00-7

3 Hazards identification

· **Hazard description:**



Xn Harmful

· **Information concerning particular hazards for human and environment:**

R 10 Flammable.

R 20 Harmful by inhalation.

4 First aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

5 Fire-fighting measures

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
 - Dilute with plenty of water.
 - Dispose contaminated material as waste according to item 13.
 - Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
 - **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
 - **Information about fire - and explosion protection:**
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** Keep container tightly sealed.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

108-94-1 cyclohexanone

PEL (USA)	200 mg/m ³ , 50 ppm
REL (USA)	100 mg/m ³ , 25 ppm
	Skin
TLV (USA)	50 mg/m ³ , 20 ppm
	Skin
IOELV (EU)	Short-term value: 81.6 mg/m ³ , 20 ppm
	Long-term value: 40.8 mg/m ³ , 10 ppm
	Skin
WEL (Great Britain)	Short-term value: 20 ppm
	Long-term value: 10 ppm
	Sk

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
 - **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Wash hands before breaks and at the end of work.
 - **Respiratory protection:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

- **Change in condition**

Melting point/Melting range: ca. - 26°C

Boiling point/Boiling range: 153 - 156°C

- **Flash point:** 43°C

- **Ignition temperature:** 420°C

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower: 1.3 Vol %

Upper: 9.4 Vol %

- **Vapour pressure at 20°C:** 5 hPa

- **Density at 20°C:** 0.95 g/cm³

- **Solubility in / Miscibility with water at 20°C:** 80 g/l

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Dangerous reactions** No dangerous reactions known.

- **Dangerous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Oral	LD50	1535 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8000 mg/l (rat)

· **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

· **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· **Product:**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1915
- **Packaging group:** III
- **Hazard label:** 3
- **Description of goods:** 1915 CYCLOHEXANONE

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1915
- **Label:** 3

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- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** CYCLOHEXANONE

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1915
- **Label:** 3
- **Packaging group:** III
- **Proper shipping name:** CYCLOHEXANONE

15 Regulatory information

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xn Harmful

- **Risk phrases:**

10 Flammable.
20 Harmful by inhalation.

- **Safety phrases:**

2 Keep out of the reach of children.
25 Avoid contact with eyes.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department
- **Contact:** Mr. Menon