

ROSS CHEM COMPANY LIMITED.

Revision number: 1

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# SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product name:** Cyclohexanone  
**Company:** ROSS CHEM COMPANY LIMITED  
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**Revision number:** 1

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

### PHYSICAL HAZARDS

Flammable liquids Category 3

### HEALTH HAZARDS

Acute toxicity (Oral) Category 4  
Acute toxicity (Dermal) Category 3  
Acute toxicity (Inhalation) Category 3  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Germ cell mutagenicity Category 2  
Carcinogenicity Category 2  
Reproductive toxicity Category 2  
Specific target organ toxicity  
- Single exposure [Category 1] Liver Central nervous system Spleen  
- Single exposure [Category 2] Lung  
- Single exposure [Category 3] Respiratory tract irritation, Narcotic effects  
- Repeated exposure [Category 1] Liver Kidney Central nervous system

Aspiration hazard Category 2

ENVIRONMENTAL HAZARDS Not classified

Label elements

Pictograms or hazard symbols



Signal word

Hazard statements

Danger  
Flammable liquid and vapour  
Harmful if swallowed  
Toxic in contact with skin or if inhaled  
Causes skin irritation  
Causes serious eye irritation  
Suspected of causing genetic defects  
Suspected of causing cancer  
Suspected of damaging fertility or the unborn child

Causes damage to organs : Liver Central nervous system  
Spleen

May cause damage to organs : Lung

Causes damage to organs through prolonged or repeated exposure : Liver Kidney Central nervous system

May cause respiratory irritation

May cause drowsiness or dizziness

May be harmful if swallowed and enters airways

### Precautionary statements

#### [Prevention]

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.  
Keep away from heat, sparks, open flames and hot surfaces. -No smoking.  
Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Do not breathe mist, vapors or spray.

Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Wash hands and face thoroughly after handling.

Wear protective gloves, protective clothing, face protection.

#### [Response]

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor.

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 advice or attention.

If exposed or concerned: Call a POISON CENTER or doctor.

#### [Storage]

In case of fire: Use dry chemical, dry sand or foam to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

#### [Disposal]

Dispose of contents and container in accordance with local, regional, national regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Substance/mixture:</b>	Substance
<b>Components:</b>	Cyclohexanone
<b>Percent:</b>	>99.0%(GC)
<b>CAS RN:</b>	108-94-1
<b>Chemical Formula:</b>	C <sub>6</sub> H <sub>10</sub> O

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
<b>Skin contact:</b>	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
<b>Eye contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Call a POISON CENTER or doctor/physician.
<b>Ingestion:</b>	Call a POISON CENTER or doctor/physician. Rinse mouth.
<b>Protection of first-aiders:</b>	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media:** Dry chemical, foam, carbon dioxide.
- Unsuitable extinguishing media:** Water (It may scatter and spread fire.)
- Precautions for firefighters:** Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so.
- Special protective equipment for firefighters:** When extinguishing fire, be sure to wear personal protective equipment

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures:** Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
- Environmental precautions:** Prevent product from entering drains.
- Methods and materials for containment and cleaning up:** Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
- Prevention of secondary hazards:** Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

**7. HANDLING AND STORAGE****Precautions for safe handling**

- Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.

- Advice on safe handling:** Avoid all contact!

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

- Storage conditions:** Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
- Packaging material:** Comply with laws.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath.
- Exposure limits:**
- ACGIH TLV(TWA):** 20 ppm (skin)
- ACGIH TLV(STEL):** 50 ppm
- Personal protective equipment**
- Respiratory protection:** Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
- Hand protection:** Impervious gloves.
- Eye protection:** Safety goggles. A face-shield, if the situation requires.
- Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state (20°C):</b>	Liquid
<b>Form:</b>	Clear
<b>Colour:</b>	Colorless - Very pale yellow
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	0.88 ppm
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	No data available
<b>Boiling point/range:</b>	157°C
<b>Flash point:</b>	44°C
<b>Flammability or explosive limits:</b>	
<b>Lower:</b>	1.1%
<b>Upper:</b>	9.4%
<b>Vapour pressure:</b>	500Pa/20°C
<b>Vapour density:</b>	3.4
<b>Relative density:</b>	0.95
<b>Solubility(ies):</b>	
<b>[Water]</b>	Soluble (8.7g/100mL, 20°C)
<b>[Other solvents]</b>	
<b>Soluble:</b>	Ether, Alcohols, Acetone
<b>Log Pow:</b>	0.81
<b>Autoignition temperature:</b>	420°C

**10. STABILITY AND REACTIVITY**

<b>Chemical stability:</b>	Stable under proper conditions.
<b>Possibility of hazardous reactions:</b>	No special reactivity has been reported.
<b>Conditions to avoid:</b>	Spark, Open flame, Static discharge
<b>Incompatible materials:</b>	Oxidizing agents, Reducing agents
<b>Hazardous decomposition products:</b>	Carbon dioxide, Carbon monoxide

**11. TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity:</b>	ihl-hmn TCLo:75 ppm ihl-rat LC50:8000 ppm/4H orl-mus LD50:1400 mg/kg orl-rat LD50:1620 uL/kg
<b>Skin corrosion/irritation:</b>	skn-rbt 500 mg open MLD
<b>Serious eye damage/irritation:</b>	eye-rbt 250 ug/24H SEV eye-rbt 20 mg SEV eye-hmn 75 ppm
<b>Germ cell mutagenicity:</b>	mmo-bcs 200 uL/L (-S9) mmo-sat 20 uL/L (-S9) sce-ham-ovr 7500 uL/L
<b>Carcinogenicity:</b>	
<b>IARC =</b>	Group 3 (Not classifiable as carcinogenic to humans)
<b>NTP =</b>	No data available
<b>Reproductive toxicity:</b>	ihl-rat TCLo: 105 mg/m <sup>3</sup> /4H (1-20D preg)
<b>RTECS Number:</b>	GW1050000

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

<b>Fish:</b>	No data available
<b>Crustacea:</b>	No data available
<b>Algae:</b>	No data available
<b>Persistence / degradability:</b>	87% (by BOD) , 91% (by TOC) , 100% (by GC)
<b>Bioaccumulative potential(BCF):</b>	No data available
<b>Mobility in soil</b>	
<b>Log Pow:</b>	0.81
<b>Soil adsorption (Koc):</b>	No data available
<b>Henry's Law (PaM<sup>3</sup>/mol):</b>	No data available

## 13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

## 14. TRANSPORT INFORMATION

<b>Hazards Class:</b>	3: Flammable liquid.
<b>UN-No:</b>	1915
<b>Proper shipping name:</b>	Cyclohexanone
<b>Packing group:</b>	III

## 15. REGULATORY INFORMATION

**Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011):** Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

**This product is included in the list of dangerous chemicals(2015)/Serial No.:** 952

## 16. OTHER INFORMATION

### The reference company name of written contents

<b>Company:</b>	ROSS CHEM COMPANY LIMITED
<b>Address:</b>	No. 227.NanYi Road, Dongying City, Shandong Province, China 257091
<b>Emergency telephone:</b>	86 546 8275057
<b>Fax:</b>	86 546 8275058

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.