



# SAFETY DATA SHEET

## ISOPHORONE

### 1.IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name:	ISOPHORONE
Recommended use:	Chemical for industrial
Manufacturer/Supplier:	<b>MODERN CHEMICAL CO.,LTD.</b> 82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63, Klong Tan Nuea, Watthana, Bangkok 10110
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### 2. HAZARDS IDENTIFICATION

#### Label elements

Pictogram



Signal word

Warning

#### Hazard statement(s):

- 1.) Harmful if swallowed.
- 2.) Harmful in contact with skin.
- 3.) Causes serious eye irritation.
- 4.) May cause respiratory irritation.
- 5.) Suspected of causing cancer.

#### Precautionary statement(s):

- 1.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- 2.) Wear protective gloves/protective clothing/eye protection/face protection.



- 3.) Use personal protective equipment as required.
- 4.) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 5.) Store locked up.
- 6.) Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonym:** 3,5,5-Trimethyl-2-cyclohexen-1-one, Isoacetophorone, Alpha-isophorone,

Ingredients	% (w/w)	CAS NO.
ISOPHORONE	100	78-59-1

### 4. FIRST AID MEASURES

- General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- Inhalation:** If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
- Skin contact:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
- Eye contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and consult a physician.
- Ingestion:** **INDUCE VOMITING** by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Carbon dioxide, chemical powder or water spray, alcohol-resistant foam.

**Unsuitable Extinguishing Media:**

Water jet.



#### Specific hazards arising from Chemicals:

May form Carbon oxides.

#### Special protective equipment for fire-fighters:

Wear self contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURE

**Precautions:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions:** Do not allow to enter sewers / surface or ground water.

#### Methods and Material for Containment and Clean Up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling & Product Transfer:

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

#### Conditions for Safe Storage & Unsuitable Materials:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Always store away from incompatible compounds such as oxidizing agents, acid, alkalis (bases).

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits:** No data available.

**Appropriate Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work station location.

#### Individual Protection Measures

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose 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:** Protective gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation.

**Eye protection:** Tightly sealed goggles.

**Skin and body protections:** Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measure:** Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form, Color and Odor :</b> Colorless to light yellow liquid and Peppermint-like	<b>Evaporation rate :</b> 0.02 ( n-Bu Acetate = 1)
<b>Melting Point :</b> -8.1 °C	<b>Specific gravity :</b> 0.918 – 0.923 g/cm <sup>3</sup> at 20 °C
<b>pH :</b> N/A	<b>Solubility in water :</b> 12 g/l
<b>Boiling point :</b> 215°C	<b>Viscosity :</b> 2.83 mm <sup>2</sup> /s at 20 °C
<b>Vapour pressure :</b> 0.33 hPa at 20 °C	<b>Vapour density (air=1) :</b> 4.77
<b>Lower explosive limits :</b> 0.8 %Vol	<b>Upper explosive limits :</b> 3.8 %Vol
<b>Auto-ignition temperature :</b> 470°C	<b>Flash point:</b> 96 °C
<b>Odour threshold:</b> 0.2 ppm	<b>Flammability (solid, gas):</b> N/A
<b>Decomposition temperature:</b> N/A	<b>Solubility in other solvents:</b> N/A
<b>n-octanol/water partition coefficient (log P<sub>ow</sub>):</b> 2.86	

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions of use.

**Reactions:** No known hazardous reactions.

**Possibility of Hazardous Reactions:** No known hazardous reactions.

**Conditions to avoid:** Avoid excessive heating.

**Materials to avoid:** Strong oxidizing agents, strong acids, strong alkalis (bases).

**Hazardous decomposition products:** Carbon oxides.



## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50 (Oral, rat): 2330 mg/kg LC50 (Inhalation, rat): 7000 mg/m <sup>3</sup> LD50 (Dermal, rabbit): 1500 mg/kg
<b>Sensitization:</b>	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
<b>Chronic toxicity:</b>	Not classifiable as to its carcinogenicity to humans (Carc. Cat. 3)
<b>Further toxicological information:</b>	No data available.

## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish:	LC50 - Fathead minnow, 96h: 228 mg/l
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna, 48h: 120 mg/l
Toxicity to algae:	No data available.
Toxicity to bacteria:	No data available.
Biodegradability Remarks:	Probability of rapid biodegradation. (95% degradation within 28 days)
Bioaccumulative Potential:	Very low potential for bioaccumulation.
Mobility:	Soil Adsorption Coefficient: Koc : 58.32
Affected in any other way:	No data available

## 13. DISPOSAL CONSIDERATIONS

<b>Material Disposal:</b>	Observe all federal, state, and local environmental regulation. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
<b>Container Disposal:</b>	Disposal must be made according to official regulations.



## 14. TRANSPORT INFORMATION

### ADR/ADNR

Not dangerous goods in transport regulations

### IMGD

Not dangerous goods in transport regulations

### IATA

Not dangerous goods in transport regulations

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulation/legislation specific for the substance or mixture

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

### Hazard pictogram Please refer sections 2

Signal word Warning

### Hazard statements Please refer section 2

Labeling according to EU guidelines:

### Code letter and hazard designation of product: Xn; Harmful

### Risk phrase: Please refer section 2

**Chemical safety assessment** A Chemical Safety Assessment has not been carried out.

### National regulations:

### Other regulations, limitations and prohibitive regulations

**Substances of very high concern (SVHC) according to REACH, Article 57:** The substance is not listed as SVHC.

## 16. Other Information

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