



## SAFETY DATA SHEET

### METHYL ISOBUTYL KETONE

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

Product name: METHYL ISOBUTYL KETONE  
Recommended use: Chemical for industrial  
Manufacturer/Supplier: **MODERN CHEMICAL CO.,LTD.**  
82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63,  
Klong Tan Nuea, Watthana, Bangkok 10110  
Telephone No: 0-2715-0897-9, 0-2392-3410-3  
Fax No: 0-2715-0908-9, 0-2391-1571-2  
Emergency Telephone No: 0-2715-0897-9, 0-2392-3410-3

#### 2. HAZARDS IDENTIFICATION

##### Label elements

Pictogram



Signal word

Danger

##### Hazard statement(s)

- 1.) Highly flammable liquid and vapour.
- 2.) Causes skin irritation.
- 3.) May be fatal if swallowed and enters airways.
- 4.) May cause drowsiness or dizziness.
- 5.) Toxic to aquatic life with long lasting effects.
- 6.) May damage the unborn child. Suspected of damaging fertility.

##### Precautionary statement(s)

- 1.) Keep away from heat/sparks/open flames/hot surfaces. - No smoking.



- 2.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- 3.) Avoid release to the environment.
- 4.) IF SWALLOWED: call a doctor/physician. Do NOT induce vomiting.
- 5.) IF IN EYES: Rinse cautiously with water for 15 minutes.
- 6.) IF ON SKIN Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonym:** Isopropylacetone, Isobutyl methyl ketone, MIBK, 2-Methyl-4-pentanone, Shell mibk, Methyl-2-pentanone, Isohexanone, Methyl Isobutyl Ketone (Hexone)

Ingredients	% (w/w)	CAS NO.
METHYL ISOBUTYL KETONE	100	108-10-1

### 4. FIRST AID MEASURES

- General advice:** Show this safety data sheet to the doctor in attendance.
- Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision.
- Skin contact:** Remove contaminated clothing and wash affected skin with soap and water. Consult a physician.
- Eye contact:** If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. Obtain medical attention.
- Ingestion:** Rinse mouth. **Do not induce vomiting.** Keep patient warm, In case of shortness of breath, give oxygen. Apply respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Never give anything by mouth to an unconscious person.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media:**

No data available



### Specific hazards arising from Chemicals:

No data available

### Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Remove all sources of ignition. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

**Environmental precautions:** Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil or vegetation, advise police.

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

Spillage: May react with combustible substances creating fire or explosion hazard and formation of toxic fumes. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Soak up with inert absorbent material (e.g. sand, silicagel). Prevent liquid entering sewers, basements and workpits; vapor may create explosive atmosphere. Transfer to covered steel drums. Dispose promptly.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling & Product Transfer:

Keep container tightly closed. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist.

Avoid contact with skin, eyes and clothing. Do not empty into drains.

### Conditions for Safe Storage & Unsuitable Materials:

Keep tightly closed at room temperature in a dry, cool and well ventilated place. Keep away from heat and sources of ignition. Keep out of direct sunlight and away from incompatible material. Store in original container. Electrical equipment should be protected to the appropriate standard.



## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits:** TWA 83 mg/m<sup>3</sup>, STEL 208 mg/m<sup>3</sup>.

**Appropriate Engineering Controls:** The product should only be used in ventilation hoods and fans.

### Individual Protection Measures

**Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter A (according to DIN3181) for vapors of organic compounds.

**Hand protection:** Handle with gloves. In case full contact and splash contact wear gloves from butyl rubber material. The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

**Eye protection:** Goggles giving complete protection to eyes.

**Skin and body protections:** Chemical resistant apron / flame retardant antistatic protective clothing, heavy duty work shoes.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end workday. Keep away from food, drink.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form, Color and Odor:</b> liquid, colourless, characteristic	<b>Evaporation rate :</b> 165 ( n-Bu Acetate = 100)
<b>Melting Point:</b> -84 °C	<b>Specific gravity :</b> 0.799-0.803 g/cm <sup>3</sup> at 20 °C
<b>pH:</b> N/A	<b>Solubility in water :</b> Soluble
<b>Boiling:</b> 114-117 °C	<b>Viscosity :</b> 0.61 mPa.s
<b>Vapor pressure:</b> 15 mmHg at 20 °C	<b>Vapor density:</b> 3.5 g/l
<b>Lower explosion limits:</b> 1.2 %Vol	<b>Upper explosive limit:</b> 8.0 %Vol
<b>Auto-ignition temperature:</b> 458 °C	<b>Flash point:</b> 16.1 °C
<b>Odour threshold:</b> N/A	<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> N/A	



## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Reactions:</b>	No data available
<b>Possibility of Hazardous Reactions:</b>	No data available
<b>Conditions to avoid:</b>	Heat, flames and sparks.
<b>Materials be avoid:</b>	Rubber, various plastics ,copper
<b>Hazardous decomposition products:</b>	Peroxide

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50 Oral – rat - 2080 mg/kg.
<b>Sensitization:</b>	After inhalation Irritations of mucous membranes coughing and dyspnoea. Drowsiness, dizziness. After skin contact: Slight irritations. Drying out effect resulting in rough and chapped skin. of skin absorption. After eyes contact: Irritations. After swallowing: Nausea and vomiting. After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting) can result in a condition resembling pneumonia (chemical pneumonitis). After absorption of large quantities: CNS disorders, drowsiness, dizziness, inebriation, drop in blood pressure, narcosis. Causes impaired function of respiratory tract, heart.
<b>Chronic toxicity:</b>	No data available
<b>Further toxicological information:</b>	No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish:	LC50- Pimephales promelas (fathead minnow) - 505 -540 mg/l/96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 - Daphnia magna: 170 mg/l /48h
Toxicity to algae	IC5 - Scenedesmus quadricauda (Green algae) -725 mg/l/7 d
Toxicity Bacterial;	EC5 - Ps.putida 275 mg/l/16h EC5 - Photobacterium phosphoreum 80 mg/l/5 min



<b>Biodegradability remark:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available
<b>Mobility:</b>	No data available
<b>Affected in any other way:</b>	No data available

### 13. DISPOSAL CONSIDERATIONS

<b>Material Disposal:</b>	Contact a licensed professional waste disposal service to dispose of this material. 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.
<b>Container Disposal:</b>	Dispose of as unused product.

### 14. TRANSPORT INFORMATION

#### ADR

UN-No: 1245	Class: 3	Packing group: II
Proper shipping group:	METHYL ISOBUTYL KETONE	

#### IMD

UN-No: 1245	Class: 3	Packing group: II
Marine pollutant:	NO	
Proper shipping group:	METHYL ISOBUTYL KETONE	

#### IATA

UN-No: 1245	Class: 3	Packing group: II
Proper shipping group:	METHYL ISOBUTYL KETONE	

### 15. REGULATORY INFORMATION

#### GHS-Labeling

##### Hazard statement (s):

No data available

##### Precautionary statement (s) :

No data available

##### Labelling according to EC Directives:



**R - phrase(s):**

No data available

**S - phrase(s):**

No data available

**16. Other Information**

Modern Chemical Co.,Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensive or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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