



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:	MODERN CHEMICAL CO.,LTD. 82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63, Klong Tan Nuea, Watthana, Bangkok 10110
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Emergency Telephone No:	0-2715-0897-9, 0-2392-3410-3

2. HAZARDS IDENTIFICATION

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

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

Precautionary statement(s)

- 1.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.



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

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 breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- Skin contact:** Wash off with soap and plenty of water. Consult a physician.
- Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion:** **Do NOT induce vomiting.** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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 MEASURE

Precautions: Use personal protective equipment. Avoid breathing vapors, 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.

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

Methods and Material for Containment and Clean Up:

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

7. HANDLING AND STORAGE

Precautions for Safe Handling & Product Transfer:

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.

Conditions for Safe Storage & Unsuitable Materials:

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: TWA 10 ppm (55 mg/m³), OEL 10 ppm (50 mg/m³)

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

Individual Protection Measures

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: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace



worn or damaged gloves. The types of gloves to be considered for this material include: Chemical resistant gloves are recommended. Nitrile, CEN standards EN 420 and EN 374 provide general requirements and lists of glove types.

Eye protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protections:

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 Fluka - 40858 Page 4 of 7 contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form, Color and Odor : liquid, Colorless , Characteristic	Evaporation rate : 3 (n-Bu Acetate = 100)
Melting Point : -95°C	Specific gravity : 0.922 g/cm ³ at 20 °C
pH : N/A	Solubility in water : Soluble
Boiling point : 215°C	Viscosity : 2.6 mPa.sec
Vapour pressure : 0.04 mbar at 20 °C	Vapour density (air=1) : 4.77 g/l
Lower explosive limits : 0.8 %Vol	Upper explosive limits : 3.8 %Vol
Auto-ignition temperature : 462°C	Flash point: 84 °C
Odour threshold: N/A	Flammability (solid, gas): N/A
Decomposition temperature: N/A	Solubility in other solvents: N/A
n-octanol/water partition coefficient (log P_{ow}): N/A	

10. STABILITY AND REACTIVITY**Chemical Stability:**

Stable under normal conditions of use.

Reactions:

No data available

Possibility of Hazardous Reactions:

No data available

Conditions to avoid:

No data available

Materials to avoid:

Strong oxidizing agents

Hazardous decomposition products:

Other decomposition products - no data available



11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral - rat - 1.500 mg/kg LC50 Inhalation - guinea pig - 8 h - 4600 ppm LD50 Dermal - rabbit - 1.382 mg/kg
Sensitization:	May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. Causes eye irritation.
Chronic toxicity:	No data available
Further toxicological information:	No data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish:	NOEC - Cyprinodon variegatus (sheepshead minnow) - 170 mg/l - 96 h LC50 - Pimephales promelas (fathead minnow) - 145 mg/l - 96 h
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Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 120 mg/l - 48 h

Toxicity to algae No data available

Toxicity to bacteria No data available

Biodegradability Remarks: No data available

Bioaccumulative Potential: Lepomis macrochirus (Bluegill) -14 d

Bioconcentration factor (BCF): 7

Mobility: No data available

Affected in any other way: No data available

13. DISPOSAL CONSIDERATIONS

Material Disposal:	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.
Container Disposal:	Dispose of as unused product.



14. TRANSPORT INFORMATION

ADR/ADNR

Not dangerous goods

IMGD

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

GHS-Labeling

Hazard statement(s):

H319 Causes serious eye irritation.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

Precautionary statement(s)

None

Hazard symbol(s)

Xn Harmful

R-pharse(s)

R21/22 Harmful in contact with skin and if swallowed.

R36/37 Irritating to eyes and respiratory system.

S-pharse(s)

S13 Keep away from food, drink and animal feedingstuffs.

S23 Do not breathe gas/fumes/vapour/spray.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.



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16. Other Information

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