

 **MATERIAL SAFETY DATA SHEET**

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**PRODUCT: ISOPHORONE**

**PRODUCT NAMES:** ISOPHORONE  
**OTHER NAMES:** 3,5,5-trimethyl-2-cyclohexenone

**UN NUMBER:** Not applicable  
**HAZCHEM CODE:** Not applicable  
**PACKAGING GROUP:** Not applicable  
**USES:** Bakes on paints and varnishes.

**DANGEROUS GOODS:**  
**CLASS & SUB RISK:** Not applicable  
**POISONS SCHEDULE:** Not applicable

**STATEMENT OF HAZARDOUS NATURE:**

Classified as hazardous according to criteria of Worksafe Australia

**PHYSICAL DESCRIPTION/PROPERTIES:**

**APPEARANCE/ODOUR** : Slightly yellow liquid with a camphorated odour.  
**MELTING POINT** : -8.1°C  
**BOILING POINT** : NA  
**FLASH POINT** : 80-85°C  
**VAPOUR DENSITY** : 0.921 kg/m<sup>3</sup> at 20°C  
**VAPOUR PRESSURE** : 0.4 mbar at 20°C  
**WATER SOLUBILITY** : Insoluble  
**FLAMMABILITY LIMITS** : LEL: 0.8 UEL: 3.8

**INGREDIENTS:**

| CHEMICAL ENTITY | CAS No. | PROPORTION |
|-----------------|---------|------------|
| Isophorone      | 78-59-1 | >99%       |
| Water           |         | <1%        |

**1. HEALTH HAZARD INFORMATION****Health Effects:****Swallowed**

The liquid is irritating to the gastro-intestinal tract and is harmful if swallowed.

**Eyes**

Possibility of burns to the cornea.

**Skin**

This liquid is mildly irritating to the skin.

**Inhaled**

The vapour/mist is irritating to the upper respiratory tract beginning with a concentration of 25 ppm.

Principal routes of exposure are by skin contact and inhalation of vapour. The liquid is a moderate irritant to the mucous membranes of the eyes and can cause inflammation of the eyelids and conjunctivitis. Skin contact can lead to burning sensations while prolonged contact may lead to defatting, irritation and dermatitis. Symptoms of exposure through inhalation include headache, dizziness, faintness, inebriation, feelings of suffocation, wheezing, shortness of breath, nausea and vomiting. Chronic exposure may cause liver and kidney damage.

**MATERIAL SAFETY DATA SHEET****PRODUCT: ISOPHORONE****2. FIRST AID****Swallowed**

Transport to a medical centre without delay.

**Eyes**

Immediately irrigate with copious quantity of water for at least 15 minutes. Get medical attention.

**Skin**

Wash contaminated areas with soap and water, remove contaminated clothing. If irritation occurs, seek medical attention.

**Inhaled**

Under fire conditions, remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get medical attention.

**Toxicity Data:**

|                           |   |                              |
|---------------------------|---|------------------------------|
| Oral (rat) LD50           | : | 2.33 g/Kg                    |
| Inhalation (human) TCLo   | : | 25 ppm                       |
| Inhalation (rat) LCLo     | : | 1840 ppm / 4 hours           |
| Dermal (rabbit) LD50      | : | 1500 mg/kg                   |
| Irritation: Skin (rabbit) | : | 100 mg / 24 hours            |
| Eye (human):              |   | 25 ppm / 15 minutes          |
| Eye (rabbit):             |   | 0.92 mg – severe             |
| Eye (rabbit):             |   | 100 mg / 24 hours - moderate |

**3. PRECAUTIONS FOR USE****Exposure standards**

TLV: 25 mg/m<sup>3</sup>.

TLV is the time weighted average concentration of the work atmosphere over a normal 8-hour work and day and a 40-hour work week. Nearly all workers may be repeatedly exposed to this level, day after day, without adverse effect.

**Engineering controls**

Use only in a well ventilated area. Use local exhaust ventilation. Ensure ventilation is adequate to maintain air concentrations below exposure standards.

**Personal protection**

Protective goggles

Protective PVC or rubber gloves

Standard protective clothing and shoes.

**Flammability**

This product is combustible.

Flashpoint: 80-85°C. Use flameproof equipment and fittings to prevent flammability risk. Earth all containers to reduce the possibility of sparks from static electricity.

**4. SAFE HANDLING INFORMATION****Storage conditions**

Avoid all sources of ignition. Maximum storage temperature is 50°C. Store outside or in a well-ventilated area. Earth all containers. Use flameproof equipment and fittings to prevent flammability risk. Avoid contact with concentrated oxidising agents. Do not pack in plastics, synthetic rubber, and aluminium-galvanised metals.

**Spills & disposal**

Contain using sand or earth – and prevent run-off into drains and waterways. Pump into original container for disposal. Absorb remainder on sand or sawdust, and recover into original container. Incineration is recommended for material and empty containers, in accordance with local authorities.

**MATERIAL SAFETY DATA SHEET****PRODUCT: ISOPHORONE****Fire/Explosion Hazard**

Moderate flammable and explosion hazard. Hazardous reaction with concentrated oxidising agents, Possibility of polymerisation to a solid in the presence of caustic and heat. In the case of fire use powder, anti-alcohol foam or water spray. Do not use water in the form of a jet.

**CONTACT POINT: Emergency response No. 0419 341 095 (all hours)**

**DISCLAIMER:** The information given in this data sheet is based on data supplied by the manufacturer and is, to the best of our knowledge, true and accurate, but any recommendations or suggestions that may be made are without guarantee, since the conditions of use are beyond our control. The information and recommendations offered are for the user's consideration and it is the user's responsibility to satisfy themselves that they are suitable and complete for this particular purpose. We recommend that the safety and handling information presented in this data sheet be passed on, in an appropriate format, to your customers and handlers.