

**Iso Butyl Methyl Ketone
CAS No 108-10-1****MATERIAL SAFETY DATA SHEET
SDS/MSDS****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**Product name : **Iso Butyl Methyl Ketone**

CAS-No. : 108-10-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheetCompany : Pallav Chemicals & Solvents Pvt. Ltd
253, Shiv Shakti Industrial Estate, Opp Mittal Estate
Andheri Kurla Road, Andheri (E), Mumbai - 400050
INDIATelephone : +91 22 4928 4000
Email : sales@pallavchemicals.com**1.4 Emergency telephone number**

Emergency Phone # : +91 22 4928 4000 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No****1272/2008** Flammable liquids (Category 2), H225

Acute toxicity, Inhalation (Category 4), H332

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system,

H335 For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

| | | |
|----|------------------|--------|
| F | Highly flammable | R11 |
| | | R66 |
| Xi | Irritant | R36/37 |
| Xn | Harmful | R20 |

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements**Labelling according Regulation (EC) No 1272/2008**

Pictogram

Signal word : Danger

| | |
|--------------------------------------|--|
| Hazard statement(s) | |
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| Precautionary statement(s) | |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing vapours. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental Hazard information (EU) | |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

| | | |
|---------------------|---|--|
| Synonyms | : | Isobutyl methyl ketone Methyl isobutyl ketone Isopropylacetone |
| | | C |
| Formula | : | 6H12O |
| Molecular weight | : | 100,16 g/mol |
| CAS-No. | : | 108-10-1 |
| EC-No. | : | 203-550-1 |
| Index-No. | : | 606-004-00-4 |
| Registration number | : | 01-2119473980-30-XXXX |

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | | Classification | Concentration |
|-----------------------------|--------------|---|---------------|
| 4-Methylpentan-2-one | | | |
| CAS-No. | 108-10-1 | Flam. Liq. 2; Acute Tox. 4; Eye Irrit. 2; STOT SE 3; H225, H319, H332, H335, EUH066 | <= 100 % |
| EC-No. | 203-550-1 | | |
| Index-No. | 606-004-00-4 | | |

Hazardous ingredients according to Directive 1999/45/EC

| Component | | Classification | Concentration |
|-----------------------------|--------------|---------------------------------|---------------|
| 4-Methylpentan-2-one | | | |
| CAS-No. | 108-10-1 | F, Xn, R11 - R20 - R36/37 - R66 | <= 100 % |
| EC-No. | 203-550-1 | | |
| Index-No. | 606-004-00-4 | | |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

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

5.2 Special hazards arising from the substance or mixture Carbon oxides**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, 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. For personal protection see section 8.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning 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 (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

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.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face 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 protection

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 contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|--------------------|-------------------|
| a) Appearance | Form: liquid |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |

| | |
|---|--|
| e) Melting point/freezing point | Melting point/range: -80 °C - lit. |
| f) Initial boiling point and boiling range | 117 - 118 °C |
| g) Flash point | 14 °C - closed cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 8 %(V) Lower explosion limit: 1,2 %(V) |
| k) Vapour pressure | 20 hPa at 20 °C |
| l) Vapour density | 3,46 - (Air = 1.0) |
| m) Relative density | 0,801 g/cm ³ at 25 °C |
| n) Water solubility | ca.20 g/l |
| o) Partition coefficient: n-octanol/water | log Pow: 1,31 |
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

| | |
|-------------------------|--------------------|
| Surface tension | 23,6 mN/m at 20 °C |
| Relative vapour density | 3,46 - (Air = 1.0) |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Strong bases

10.6 Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2.080 mg/kg

LC50 Inhalation - Rat - 4 h - 8,2 - 16,4 mg/m³

LD50 Dermal - Rabbit - > 16.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Moderate eye irritation - 24 h

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (4-Methylpentan-2-one)

Reproductive toxicity

Developmental Toxicity - Mouse - Inhalation

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - Mouse - Inhalation

Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: SA9275000

Blurred vision, Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC0 - Leuciscus idus melanotus - 480 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 1.550 - 3.623 mg/l - 24 h

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 980 - 2.000 mg/l - 48 h

12.2 Persistence and degradability

Biodegradability Biotic/Aerobic - Exposure time 7 d

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1245

IMDG: 1245

IATA: 1245

14.2 UN proper shipping name

ADR/RID: METHYL ISOBUTYL KETONE

IMDG: METHYL ISOBUTYL KETONE

IATA: Methyl isobutyl ketone

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.

Acute toxicity

EUH066

Repeated exposure may cause skin dryness or cracking.

Eye Irrit.

Eye irritation

Flam. Liq.

Flammable liquids

| | |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |

Full text of R-phrases referred to under sections 2 and 3

| | |
|--------|---|
| F | Highly flammable |
| Xn | Harmful |
| R11 | Highly flammable. |
| R20 | Harmful by inhalation. |
| R36/37 | Irritating to eyes and respiratory system. |
| R66 | Repeated exposure may cause skin dryness or cracking. |

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Pallav Chemicals & Solvents Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.pallavchemicals.com for additional terms and conditions of sale.