

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### Product identifier

Trade name	Methyl Isobutyl Ketone
Synonyms	2-methylpropyl methyl ketone, Hexone, Isobutyl methyl ketone, 4-methylpentan-2-one, Isopropyl acetone.
Product code	2111
CAS-No.	108-10-1

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

Use	Solvent.
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#### Manufacturer or supplier's details

Company	Sasol Chemicals, a division of Sasol South Africa Ltd
Address	Sasol Place, 50 Katherine Street Sandton 2090 South Africa
Telephone	+27103445000
E-mail address	sasolchem.info.sa@sasol.com
Emergency telephone number	+44 (0)1235 239 670 (Europe, Israel, Africa, Americas) +44(0)1235 239 671 (Middle East, Arabic African countries) +65 3158 1074 (Asia Pacific) +86 400 120 6011 (China) +27 (0)17 610 4444 (South Africa) 0800 112 890 RSA-Local only +61 (2) 8014 4558 (Australia)

### SECTION 2. Hazards identification

#### Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Classification

Flammable liquids

Category 2

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

Acute inhalation toxicity	Category 4
Eye irritation	Category 2
Specific target organ toxicity - single exposure (Respiratory system)	Category 3
Carcinogenicity	Category 2

### Label elements

#### REGULATION (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.

#### Supplemental Hazard Statements

EUH066 Repeated exposure may cause skin dryness or cracking.

### Precautionary statements

## Safety Data Sheet

### Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

#### Prevention

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
- P243 Take precautionary measures against static discharge.
- P271 Use only outdoors or in a well-ventilated area.
- P240 Ground and bond container and receiving equipment.
- P242 Use non-sparking tools.
- P203 Obtain, read and follow all safety instructions before use.

#### Response

- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P317 If eye irritation persists: Get medical advice/ attention.
- P318 IF exposed or concerned, get medical advice.

#### Storage

- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

#### Disposal

- P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

### SECTION 3. Composition/information on ingredients

#### HAZARDOUS INGREDIENTS

**4-methylpentan-2-one**

**Contents:** 100.00 %W/W

**CAS-No.** 108-10-1

**Index-No.** 606-004-00-4

**EC-No.** 203-550-1

**Hazard statements** *H225 H319 H332 H336 H351*



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## Safety Data Sheet

### Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

#### SECTION 4. First aid measures

##### Description of necessary first-aid measures

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, get medical attention immediately.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. When symptoms persist or in all cases of doubt seek medical advice.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Call a physician immediately.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Seek medical advice.

##### Most important symptoms/effects, acute and delayed

Refer to SECTION 11

#### SECTION 5. Firefighting measures

<b>Suitable extinguishing media</b>	Water spray. Dry powder. Alcohol-resistant foam.
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective suit.

#### SECTION 6. Accidental release measures

<b>Personal precautions</b>	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist. Use non-sparking tools.
<b>Environmental precautions</b>	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

**Methods for cleaning up** Soak up with inert absorbent material and dispose of as hazardous waste.

**Reference to other sections** Refer to section 8 and 13

### SECTION 7. Handling and storage

**Safe handling advice** Avoid inhalation of vapour or mist. Wear personal protective equipment.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition. Use only explosion-proof equipment.

**Requirements for storage areas and containers** Keep away from sources of ignition - No smoking.

**Advice on common storage** Keep in a cool, well-ventilated place.

### SECTION 8. Exposure controls/personal protection

Components with workplace control parameters

#### NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
ISOBUTYL METHYL KETONE	TWA	205 mg/m <sup>3</sup>	1995	South Africa RELs
METHYL ISOBUTYL KETONE (MIBK)	TWA	50 ppm	1995	South Africa RELs
HEXONE	STEL	300 mg/m <sup>3</sup>	1995	South Africa RELs
HEXONE	STEL	75 ppm	1995	South Africa RELs

**Exposure controls**

**Engineering measures**

Provide sufficient air exchange and/or exhaust in work rooms.

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## Safety Data Sheet

### Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

#### Personal protective equipment

<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Hand protection</b>	Gloves suitable for permanent contact: Material: butyl-rubber Break through time: 4 h Material thickness: 0.5 mm
<b>Eye protection</b>	Safety glasses with side-shields.
<b>Skin and body protection</b>	Protective suit. Safety shoes.
<b>Hygiene measures</b>	Wash hands before breaks and immediately after handling the product.

#### SECTION 9. Physical and chemical properties

##### Information on basic physical and chemical properties

<b>Form</b>	Liquid
<b>State of matter</b>	Liquid; at 20 ° C; 1,013 hPa
<b>Colour</b>	Colourless
<b>Odour</b>	Sweet
<b>Odour Threshold</b>	No data available.
<b>pH</b>	Not applicable.
<b>Melting point/range</b>	-80 ° C
<b>Boiling point/boiling range</b>	115.9 ° C; ASTM D86
<b>Flash point</b>	14 ° C; ASTM D 93 - 85; closed cup;
<b>Evaporation rate</b>	No data available.
<b>Flammability (solid, gas)</b>	No data available.
<b>Auto-ignition temperature</b>	No data available.
<b>Decomposition</b>	No data available.
<b>Temperature</b>	
<b>Lower explosion limit</b>	1.2 %(V)
<b>Upper explosion limit</b>	8 %(V)
<b>Vapour pressure</b>	18.8 hPa; 20 ° C
<b>Relative vapour density</b>	3.46(Air = 1.0)
<b>Density</b>	0.799 g/cm <sup>3</sup> ; 20 ° C; ASTM D4052

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## Safety Data Sheet

### Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

Water solubility	Insoluble
Partition coefficient: n-octanol/water	No data available.
Viscosity, kinematic	0.777 mm <sup>2</sup> /s; 20 ° C; ASTM D 445

#### SECTION 10. Stability and reactivity

Reactivity	Stable under recommended storage conditions.
Chemical stability	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Oxidizing agents. Reducing agents.
Hazardous decomposition products	Carbon oxides.

#### SECTION 11. Toxicological information

Acute dermal toxicity	4-methylpentan-2-one: LD50 Rat: 2,000 mg/kg; (literature value)
Skin irritation	4-methylpentan-2-one: Rabbit: Slightly irritating; (literature value)
Eye irritation	4-methylpentan-2-one: Rabbit: Irritating (literature value)
Sensitisation	No data available.
Carcinogenicity	Suspected of causing cancer.
Mutagenicity	No data available. No data available.;
Eye contact	Irritating to eyes
Skin contact	Repeated exposure may cause skin dryness or cracking
Inhalation	Harmful by inhalation
Ingestion	No data available.

#### SECTION 12. Ecological information

Toxicity to fish	4-methylpentan-2-one: static test; Pimephales promelas; 96 h; LC50; > 100 mg/l;
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# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

	(literature value)
<b>Toxicity to daphnia and other aquatic invertebrates</b>	4-methylpentan-2-one: static test; Daphnia magna; 48 h; EC50; > 100 mg/l(literature value)
<b>Toxicity to algae</b>	4-methylpentan-2-one: static test; Desmodesmus subspicatus (green algae)EC50; > 100 mg/l; (literature value)
<b>Biodegradability</b>	4-methylpentan-2-one: aerobic; Activated sludge, domestic, non-adapted; 100 mg/l; Biochemical oxygen demand; > 70 %; 7 d; Readily biodegradable.; OECD Guideline 301 E; (literature value)
<b>Bioaccumulation</b>	No data available.
<b>Other adverse effects</b>	No data available.

### SECTION 13. Disposal considerations

<b>Product</b>	Dispose of in accordance with local regulations.
<b>Packaging</b>	Dispose of spent product packaging responsibly and lawfully with due consideration for health, safety and the environment.

### SECTION 14. Transport information

DG Pictogram



<b>ADR</b>	
<b>UN number:</b>	1245
<b>Class:</b>	3
<b>Packaging group:</b>	II; F1;
<b>Proper shipping name:</b>	METHYL ISOBUTYL KETONE

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

### RID

UN number: 1245  
 Class: 3  
 Packaging group: II; F1  
 Proper shipping name: METHYL ISOBUTYL KETONE

### ADNR

UN number: 1245  
 Class: 3  
 Packaging group: II; F1  
 Proper shipping name: METHYL ISOBUTYL KETONE

### IMDG

UN number: 1245  
 Class: 3  
 EmS: F-E, S-D  
 Packaging group: II  
 Proper shipping name: METHYL ISOBUTYL KETONE

### ICAO/IATA

UN number : 1245  
 Class: 3  
 Packaging group: II  
 Proper shipping name: METHYL ISOBUTYL KETONE

Transport in bulk according to Annex II of MARPOL

73/78 and the IBC Code Pollution Category: Z

Ship Type: 3

## SECTION 15. Regulatory information

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

**Inv. of Exist. Chem. Substances in China** All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See chapter 3)

**USA TSCA Inventory** All chemical constituents are listed in: USA TSCA Inventory (See chapter 3)

# Safety Data Sheet

## Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

<b>Canadian Domestic Substances List (DSL)</b>	All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)
<b>Australian Inv. of Chem. Substances (AICS)</b>	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
<b>Jap. Inv. of Exist. &amp; New Chemicals (ENCS)</b>	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
<b>Japan. Industrial Safety &amp; Health Law (ISHL)</b>	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
<b>Korea. Existing Chemicals Inventory (KECI)</b>	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
<b>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</b>	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
<b>China Inv. Existing Chemical Substances (IECSC)</b>	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)

### SECTION 16. Other information

#### Full text of H-Statements

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety and environmental hazards at the date of issue, to facilitate the safe receipt, use and handling of this product in the workplace and does not replace any product information or product specifications. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which this product may be handled, used and



## Safety Data Sheet

### Methyl Isobutyl Ketone

Version 1.09

Revision Date 17.11.2022

received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which this product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place with respect to health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of this product.

Although all reasonable efforts were exercised in the compilation of this SDS, Sasol does not expressly warrant the accuracy of, or assume any liability for incomplete information contained herein or any advice given. When this product is sold, risk passes to the purchaser in accordance with the specific terms and conditions of sale.