



Safety Data Sheet

Methyl Isobutyl Ketone

Version 1.02

Revision Date 08.08.2019

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

Product code 2111

CAS-No. 108-10-1

EINECS-No. 203-550-1

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

Use Solvent.

Manufacturer or supplier's details

Company Sasol Chemicals, a division of Sasol South Africa Ltd

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Sandton
2090
South Africa

Telephone +27103445000

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+44(0)1235 239 671 (Middle East, Arabic African countries)
+65 3158 1074 (Asia Pacific)
+86 10 5100 3039 (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

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REGULATION (EC) No 1272/2008

Classification	Flammable liquids	Category 2
	Acute toxicity	Category 4
	Eye irritation	Category 2
	Specific target organ toxicity - single exposure (Respiratory system)	Category 3

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.
 H335 May cause respiratory irritation.

Supplemental Hazard Statements

:

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements



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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.

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.

Storage

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

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

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

Substance

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 H335*



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SECTION 4. First aid measures

Description of necessary first-aid measures

Inhalation	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
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. When symptoms persist or in all cases of doubt seek medical advice.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Call a physician immediately.
Ingestion	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

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

SECTION 6. Accidental release measures

Personal precautions	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.
Environmental precautions	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste.



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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 ³	1995	South Africa RELs
METHYL ISOBUTYL KETONE (MIBK)	TWA	50 ppm	1995	South Africa RELs
HEXONE	STEL	300 mg/m ³	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.

Personal protective equipment

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

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Form	Liquid
State of matter	Liquid; at 20 ° C; 1,013 hPa
Colour	Colourless
Odour	Pleasant
Odour Threshold	No data available
Melting point/range	-84 ° C
Boiling point/boiling range	115.9 ° C
Flash point	14 ° C; closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Auto-ignition temperature	448 ° C
Lower explosion limit	1.4 %(V)
Upper explosion limit	7.5 %(V)
Vapour pressure	15.7 hPa; 20 ° C
Relative vapour density	3.45
Density	0.80 g/cm ³ ; 20 ° C
Water solubility	Immiscible.
Partition coefficient: n-octanol/water	log Pow: 1.2



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Viscosity, dynamic 0.575 mPa.s; 20 ° C

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	No data available
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; (literature value)
Toxicity to daphnia and other aquatic invertebrates	4-methylpentan-2-one: static test; Daphnia magna; 48 h; EC50; > 100 mg/l(literature



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	value)
Toxicity to algae	4-methylpentan-2-one: static test; Desmodesmus subspicatus (green algae)EC50; > 100 mg/l; (literature value)
Biodegradability	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)
Bioaccumulation	No data available
Other adverse effects	No data available

SECTION 13. Disposal considerations

Product	Dispose of in accordance with local regulations.
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SECTION 14. Transport information

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



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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	Methyl Isobutyl Ketone 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)
Canadian Domestic Substances List (DSL)	All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)
Australian Inv. of Chem. Substances (AICS)	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
New Zealand Inventory of Chemicals (NZIoC)	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
Jap. Inv. of Exist. & New Chemicals (ENCS)	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)



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Korea. Existing Chemicals Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
China Inv. Existing Chemical Substances (IECSC)	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.

H335 May cause respiratory irritation.

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 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.

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