



Safety Data Sheet

Methyl Ethyl Ketone

Version 1.10

Revision Date 14.02.2012

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

Trade name	Methyl Ethyl Ketone
Synonyms	Methyl Ethyl Ketone, 2-Butanone, 3-Butanone, Methyl acetone, Ethyl methyl ketone
Product code	2120
Use	Solvent, raw material for printing inks and printing ink additives, Paint related material, For industrial use only.
Company	Sasol Solvents A Division of Sasol Chemical Industries 2 Sturdee Avenue Rosebank 2196 Republic of South Africa
Information (Product safety)	Telephone: +27 11 280 0000 Fax: +27 11 280 0198 E-mail address msds.info@sasol.com
Emergency telephone number	Europe, Israel, Africa, Americas +44 (0)1235 239 670 Middle East, Arabic African countries +44 (0)1235 239 671 Asia Pacific +65 3158 1074 China +86 10 5100 3039 South Africa +27 (0)17 610 4444 Australia +61 2 9032 0460

2. Hazards identification

Identification of the risks

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

butanone; ethyl methyl ketone

Contents: <= 99.50 %W/W

CAS-No. 78-93-3

Symbol(s) F, Xi

Index-No. 606-002-00-3

R-phrase(s) -R11 -R36 -R66 -R67

EC-No. 201-159-0

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



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4. First aid measures

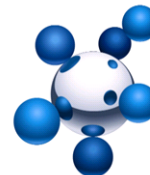
General advice	<i>When symptoms persist or in all cases of doubt seek medical advice.</i>
Inhalation	<i>Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.</i>
Skin contact	<i>Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.</i>
Eye contact	<i>Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.</i>
Ingestion	<i>If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.</i>

5. Firefighting measures

Suitable extinguishing media	<i>Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO₂)</i>
Extinguishing media which shall not be used for safety reasons	<i>No information available.</i>
Specific hazards during firefighting	<i>Vapours may form explosive mixtures with air. Flash back possible over considerable distance.</i>
Special protective equipment for firefighters	<i>Wear self-contained breathing apparatus and protective suit.</i>
Further information	<i>Cool containers / tanks with water spray.</i>

6. Accidental release measures

Personal precautions	<i>Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist. Material can create slippery conditions.</i>
Environmental precautions	<i>Should not be released into the environment. Prevent further leakage or spillage if safe to do so.</i>
Methods for cleaning up	<i>Soak up with inert absorbent material and dispose of as hazardous waste.</i>



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7. Handling and storage

Handling

Safe handling advice Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Take precautionary measures against static discharges.

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

Storage

Requirements for storage areas and containers Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
BUTANONE	TWA	600 mg/m ³	12 2009	EU Exposure Limit Values
	TWA	200 ppm	12 2009	EU Exposure Limit Values
	STEL	900 mg/m ³	12 2009	EU Exposure Limit Values
	STEL	300 ppm	12 2009	EU Exposure Limit Values

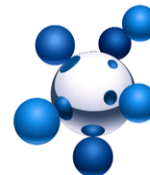
Engineering measures

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

Personal protective equipment

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



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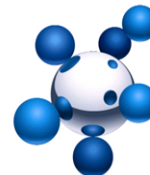
Eye protection	Safety glasses with side-shields
Skin and body protection	Protective suit, Safety shoes
Hygiene measures	Wash hands before breaks and immediately after handling the product.
Protective measures	Wear suitable protective equipment.

9. Physical and chemical properties

Form	Liquid
State of matter	Liquid
Colour	Colourless
Odour	mint-like
pH	No data available
Melting point/range	-86.3 °C
Boiling point/boiling range	79.6 °C
Flash point	-9 °C; Closed cup
Flash point	9 °C; open cup
Autoignition temperature	515 °C
Lower explosion limit	1.4 %(V)
Upper explosion limit	11.4 %(V)
Vapour pressure	121.323 hPa; 25 °C
Density	0.805 g/cm ³
Water solubility	partly miscible
Viscosity, dynamic	0.41 mPa.s
Viscosity, kinematic	0.51 mm ² /s
Relative vapour density	2.5(Air = 1.0)

10. Stability and reactivity

Materials to avoid	Strong oxidizing agents, Incompatible with acids., Halogenated compounds
Hazardous decomposition products	Carbon oxides
Hazardous reactions	Hazardous polymerisation does not occur.



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11. Toxicological information

Acute oral toxicity	LD50 rat: 2,737 mg/kg; literature value
Acute inhalation toxicity	LC50 rat: 23,500 mg/m ³ ; ; 8 h; literature value
Acute dermal toxicity	LD50 rabbit: 6,480 mg/kg; literature value
Skin irritation	rabbit: moderately irritating; literature value
Eye irritation	rabbit: irritating; literature value

12. Ecological information

Ecotoxicity effects

Toxicity to fish	LC50 <i>Lepomis macrochirus</i> (Bluegill sunfish): 4,467 mg/l; 96 h; literature value LC50 <i>Poecilia reticulata</i> : 5,700 mg/l; 24 h; literature value LC50 <i>Pimephales promelas</i> : 3,200 mg/l; 96 h; literature value
Toxicity to daphnia and other aquatic invertebrates.	LC50 <i>Daphnia magna</i> : < 520 mg/l; 48 h; literature value

13. Disposal considerations

Product	In accordance with local and national regulations., Do not contaminate ponds, waterways or ditches with chemical or used container., The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	Do not burn, or use a cutting torch on, the empty drum., Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

14. Transport information

ADR	UN number: 1193; Class: 3; Packaging group: II; F1; Description of the goods: ETHYL METHYL KETONE
RID	UN number: 1193; Class: 3; Packaging group: II; F1; Description of the goods: ETHYL METHYL KETONE
ADNR	UN number: 1193; Class: 3; Packaging group: II; F1; Description of the goods: ETHYL METHYL KETONE
IMDG	UN number: 1193; Class: 3; EmS: F-E, S-D; Packaging group: II; Description of the goods: ETHYL METHYL KETONE
ICAO/IATA	UN number : 1193; Class: 3; Packaging group: II; Description of the goods: Methyl ethyl ketone



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15. Regulatory information

Labelling



Regulatory base

67/548/EEC

Symbol(s)

F: Highly flammable
Xi: Irritant

R-phrases(s)

R11: Highly flammable.
R36: Irritating to eyes.
R66: Repeated exposure may cause skin dryness or cracking.
R67: Vapours may cause drowsiness and dizziness.

S-phrase(s)

S 2: Keep out of the reach of children.
S 9: Keep container in a well-ventilated place.
S 16: Keep away from sources of ignition - No smoking.

**Hazardous components
which must be listed on
the label**

butanone; ethyl methyl ketone

16. Other information

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

R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.



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All reasonable efforts were exercised to compile this SDS in accordance with ISO 11014 and ANSIZ400.1.1993. The SDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which the 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 the 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 as regards 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 the product.

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

The MSDS was created by: F. SHAI

The MSDS was approved by: M. HUYSER