

METHYL ETHYL KETONE MSDS

Methyl Ethyl Ketone

PRODUCT NAME Methyl Ethyl Ketone

2 HAZARDS IDENTIFICATION

Highly flammable. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Irritating to eyes.

CLASSIFICATION Xi;R36. F;R11. R66, R67.

3 COMPOSITION/INFORMATION ON INGREDIENTS

EU INDEX NO. 606-002-00-3

EC (EINECS) NO. 201-159-0

CAS-NO. 78-93-3

4 FIRST-AID MEASURES

INHALATION

Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

INGESTION

Provide rest, warmth and fresh air. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention.

SKIN CONTACT

Remove contaminated clothing immediately and wash skin with soap and water.

EYE CONTACT

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical

attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

SPECIFIC HAZARDS

Oxides of: Carbon.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

Methyl Ethyl Ketone

PERSONAL PRECAUTIONS

Follow precautions for safe handling described in this safety data sheet. Do not smoke, use naked flames or other sources of

ignition. Take precautionary measures against static discharges. Provide adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other

appropriate regulatory body.

SPILL CLEAN UP METHODS

Absorb with inert, damp, non-combustible material, then flush area with water. Collect spillage in containers, seal securely and

deliver for disposal according to local regulations.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Eliminate all sources of ignition.

Static

electricity and formation of sparks must be prevented. Provide good ventilation.

STORAGE PRECAUTIONS

Keep containers tightly closed. Keep in original container. Keep away from heat, sparks and open flame.

STORAGE CLASS

Flammable liquid storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name Std LT - ppm LT - mg/m³ ST - ppm ST - mg/m³

Methyl Ethyl Ketone WEL 200 ppm 600 mg/m³ 300 ppm 866 mg/m³

PROTECTIVE EQUIPMENT

ENGINEERING MEASURES

Well-ventilated area.

RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION

Butyl rubber gloves are recommended.

EYE PROTECTION

Wear approved safety goggles.

OTHER PROTECTION

Wear rubber apron. Wear rubber footwear.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Clear liquid

COLOUR Colourless

ODOUR Characteristic

SOLUBILITY Soluble in water

MOL. WEIGHT 72 BOILING POINT (°C) 79 - 81

RELATIVE DENSITY 0.805 20 VAPOUR DENSITY (air=1) >1

VAPOUR PRESSURE 9.3 kPa 20 EVAPORATION RATE 6

VISCOSITY 0.52 cSt 25 FLASH POINT (°C) -4

AUTO IGNITION

TEMPERATURE (°C)

>450 FLAMMABILITY LIMIT - LOWER(%) 1.8

FLAMMABILITY LIMIT - UPPER(%) 11.5 SOLUBILITY VALUE (g/100g 26.3

VOLATILE ORGANIC COMPOUND

(VOC)

YES

H₂O@20°C)

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10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.

HAZARDOUS POLYMERISATION

Will not polymerise.

MATERIALS TO AVOID

Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of: Carbon.

11 TOXICOLOGICAL INFORMATION

INHALATION

Vapours may irritate throat and respiratory system and cause headache, dizziness and dullness.

INGESTION

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

SKIN CONTACT

Irritating to skin. Repeated exposure may cause skin dryness or cracking.

EYE CONTACT

Irritating to eyes.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

The product is not expected to be hazardous to the environment.

MOBILITY

The product is soluble in water.

DEGRADABILITY

The product is expected to be biodegradable.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste

Disposal

Authority. Do not puncture or incinerate even when empty. Rags and the like, moistened with flammable liquids, must be

discarded into designated fireproof bucket.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

UK ROAD CLASS 3

PROPER SHIPPING NAME ETHYL METHYL KETONE (METHYL ETHYL KETONE)

UN NO. ROAD 1193 UK ROAD PACK GR.

ADR CLASS NO. 3 ADR CLASS Class 3: Flammable liquids.

ADR PACK GROUP II HAZARD No. (ADR) 33

II

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ADR LABEL NO. 3 HAZCHEM CODE 2YE

CEPIC TEC(R) NO. 30GF1-I+II RID CLASS NO. 3

RID PACK GROUP II UN NO. SEA 1193

IMDG CLASS 3 IMDG PACK GR.

EMS F-E, S-D MFAG See Guide
MARINE POLLUTANT No. UN NO. AIR 1193
AIR CLASS 3 AIR PACK GR.

15 REGULATORY INFORMATION

LABELLING

Highly Flammable Irritant

RISK PHRASES

R11 Highly flammable.

R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition - No smoking.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations

Dangerous for Supply. DSEAR

GUIDANCE NOTES

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

16 OTHER INFORMATION

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REV. NO./REPL. SDS GENERATED 06

SDS NO. M011

SAFETY DATA SHEET STATUS

Methyl Ethyl Ketone

Product Specification - Version 5a

Specifications Minimum Maximum Test Method

Purity (wt%) 99.5 GC

Specific Gravity @ 20/20C 0.805 0.807 ASTM D1298/D4052

Specific Gravity @ 25/25C 0.801 0.803 ASTM D1298/D4052

Water (wt%) 0.1 ASTM D1364

Acidity as Acetic Acid (wt%) 0.003 ASTM D1613

Color (Pt-Co) 10 ASTM D1209

Distillation Range (degrees C) ASTM D1078

Initial Boiling Point 79.0

Dry Point 80.5

Non-Volatile Residue (mg/100ml) 2 ASTM D1353

Appearance Clear and free Visual

Notes: Sasol's MEK meets ASTM D740 requirements.

Reason for revision:

Version 2a dated 7/20/06 GAT– Residue on Evaporation restated to 2mg/100ml max.

Version 4a dated 12/25/06 GAT – Specification layout revised for posting on website.

Version 5a dated 2/1/07 GAT – Sasol's MEK meet ASTM D740 requirements.