

Safety data sheet

Methyl Ethyl Ketone 99.5%

Revision date : 2006/01/06

Version: 1.0

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(30082888/CDU_GEN_US/EN)

1. Substance/preparation and company identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932

24 Hour Emergency Response Information

CHEMTREC: (800) 424-9300
BASF HOTLINE: (800) 832-HELP

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS Number	Content (weight%)
methyl ethyl ketone	78-93-3	90 - 100
OSHA PEL 200 ppm 590 mg/m ³		
ACGIH STEL 300 ppm; TWA 200 ppm		

3. HAZARD IDENTIFICATION

HMIS III RATING

Health: 2* Flammability: 3 Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

EMERGENCY OVERVIEW

WARNING

EXTREMELY FLAMMABLE LIQUID AND VAPOUR

HARMFUL IF INHALED

CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE

CAN CAUSE LIVER DAMAGE

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION

INGESTION MAY CAUSE GASTRIC DISTURBANCES

POTENTIAL HEALTH EFFECTS

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute toxicity:

Inhalation may cause CNS depression, blurred vision, dizziness and

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drowsiness.

Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

Information on: methyl ethyl ketone

Inhalation of high concentrations of methyl ethyl ketone may produce irritation to the nose, throat and eyes; CNS effects and peripheral neuropathy. Ingestion of high oral doses may produce liver damage.

Irritation:

Skin contact may result in irritation, defatting and dermatitis. Vapors cause irritation to the respiratory tract and the eyes. Prolonged inhalation of product vapor can result in irritation of the mucous membranes.

Repeated dose toxicity:

Information on: methyl ethyl ketone

Methyl ethyl ketone was teratogenic and embryotoxic to rats by inhalation at concentrations of 1,000 and 3,000 ppm. Repeated skin contact may result in dermatitis.

4. FIRST-AID MEASURES

General advice:

Remove contaminated clothing.

Contact the local poison control center or call BASF Emergency Response at 1-800-832-HELP (4357).

If inhaled:

Keep patient calm, remove to fresh air.

If breathing difficulties develop, aid in breathing and seek immediate medical attention.

If on skin:

Wash affected areas with water for at least 15 minutes.

If irritation develops, seek medical attention.

If in eyes:

Flush with copious amounts of water for at least 15 minutes.

Hold eyelids open to facilitate rinsing.

Seek medical attention.

If swallowed:

Rinse mouth and then drink plenty of water.

Do not induce vomiting due to aspiration hazard.

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Immediate medical attention is required.

Ingestion may cause irritation of the gastrointestinal tract.

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Aspiration may result in chemical pneumonitis, which may be fatal.

5. FIRE FIGHTING MEASURES

Flash point: 16 °F (-9 °C) (closed cup)

Lower explosion limit: 1.8 VOL%

Upper explosion limit: 11.5 VOL%

Suitable extinguishing media:

Use alcohol type aqueous foam for large fires.

Use carbon dioxide or dry chemical for small fires.

Unsuitable extinguishing media for safety reasons:

Water spray

Hazards during firefighting:

Flammable gases/vapors.

Vapors and/or decomposition products are irritants and/or toxic.

If product is heated above decomposition temperatures, acrid smoke and fumes will be released.

Protective equipment for firefighting:

Wear self-contained breathing apparatus and turn-out gear.

Further information:

Vapors are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Flash fire may occur.

Remove product from areas of fire or otherwise cool sealed containers with water in order to avoid pressure build-up due to heat.

Do not flood burning material with water due to potential spreading of fire.

Contain contaminated water/firefighting water.

Run-off water from fire may cause pollution.

Notify proper authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Extinguish sources of ignition nearby and downwind.

Wear suitable personal protective clothing and equipment.

Ensure adequate ventilation.

Avoid prolonged inhalation.

Avoid contact with skin and eyes.

Use antistatic tools.

Environmental precautions:

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Do not discharge into drains/surface waters/groundwater.
A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities.

Cleanup:

Dike spillage.

Place into appropriately labeled waste containers.

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. HANDLING AND STORAGE

HANDLING

General advice:

Ensure adequate ventilation.

Do not puncture, drop or slide containers.

Use static lines when mixing and transferring material.

Handle and open container with care.

Avoid contact with the skin, eyes and clothing.

WARNING: Empty containers may still contain hazardous residue.

Do not apply to hot surfaces.

Proper ventilation and respiratory protection is required when sanding, flame cutting, welding or brazing coated surfaces.

Protection against fire and explosion:

Use antistatic tools.

Exhaust fans should be explosion proof.

Provide adequate ventilation to remove solvent vapors from lower levels or work areas and to prevent solvent contact with ignition sources.

Sealed containers should be protected against heat as this results in pressure build-up.

Risk of explosion if heated under confinement.

Avoid all sources of ignition: heat, sparks, or open flame.

STORAGE

General advice:

Store in a cool, dry, well ventilated area.

Keep away from heat and ignition sources.

Keep container tightly closed.

Protect from direct sunlight.

Consult local fire marshal for storage requirements.

Storage incompatibility:

General: Segregate from incompatible substances.

Segregate from oxidizing agents.

Segregate from strong bases.

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Segregate from strong acids.
Segregate from amines, ammonia, aldehydes, halogens.
Segregate from hydrogen peroxide.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

See section 2.

ADVICE ON SYSTEM DESIGN

Provide local exhaust ventilation to maintain recommended P.E.L.
General mechanical ventilation should comply with OSHA 1910.94.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided.

Wear respiratory protection if ventilation is inadequate.

Wear NIOSH-certified (or equivalent) organic vapor respirator.

Particulate filters should be added during spray operations.

Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Use appropriate chemically resistant gloves as determined by an evaluation of glove performance characteristics and the hazards and potential hazards identified, including but not limited to butyl, natural and synthetic rubber, nitrile, or neoprene.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen based on activity level and exposure.

General safety and hygiene measures:

Work place should be equipped with a shower and eye wash.

Contact lenses should not be worn.

Remove contaminated clothing.

Contaminated equipment or clothing should be cleaned after each use or disposed of.

Hands and/or face should be washed before breaks and at the end of the shift.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form: liquid
Odour: ketone
Colour: colourless
Boiling range: 174 - 177 °F
Vapour pressure: 77.50 mmHg (20 °C)
Relative density: 0.81
Vapour density: heavier than air

10. STABILITY AND REACTIVITY

Conditions to avoid:

Avoid all sources of ignition: heat, sparks or open flames.
Avoid electrostatic discharge.

Substances to avoid:

Strong bases
Strong oxidizing agents
Strong acids
Amines, ammonia, aldehydes, halogens, hydrogen peroxide.

Hazardous reactions:

This product is chemically stable.

Decomposition products:

Carbon monoxide
Carbon dioxide

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal of substances:

Dispose of in accordance with national, state and local regulations.

The use and processing of this product, or addition of other constituents, may cause it to be considered a hazardous waste.

It is the waste generators responsibility to determine if a particular waste is hazardous under RCRA.

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Do not discharge into drains/surface waters/groundwater.
Incinerate or dispose of in a RCRA licensed facility.
Do not incinerate closed containers.

Contaminated packaging:
Dispose of in accordance with national, state and local
regulations.
Do not reuse containers without commercial reconditioning.

14. TRANSPORT INFORMATION

Reference Bill of Lading.

15. REGULATORY INFORMATION

FEDERAL REGULATIONS

TSCA, US released/listed

STATE REGULATIONS

State RTK:

CAS Number
78-93-3

Chemical name
methyl ethyl ketone

16. OTHER INFORMATION

Recommended use: FOR INDUSTRIAL USE ONLY.

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LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN
OR RESULTS OBTAINED. ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR
RISK.

FULL DISCLOSURE

Chemical name

CAS Number

Content (weight%)

methyl ethyl ketone

78-93-3

90 - 100