



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : E 11629
Product Name : ETHYL METHYL KETONE

Manufacturer / supplier identification

Company : NICE Chemicals (P) Ltd. , Cochin , India
Tel - 0484 2800212 , 2802755

Contact For Information : Tel . No. – 0484 2802536 Fax : 0484 2802483
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms:

2-Butanone, Methyl ethylketone, MEK

CAS-No : 78-93-3 EC-Index-No.: 606-002-00-3 EC -No. 201-159-0

M : 72.11 g/mol Formula Hill : C₄H₈O

Chemical formula: CH₃ COC₂H₅

3. HAZARDS IDENTIFICATION

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

4. FIRST AID MEASURES

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact : Rinse out with plenty of water for at least 10 minutes
with the eyelid held wide open. Call in ophtalmologist .



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After inhalation: fresh air. If necessary apply mouth to mouth resuscitation or mechanical ventilation. Keep airways free.

After swallowing : Immediately make victim drink plenty of water. Subsequently administer: activated charcoal (20- 40 g in 10% slurry). Risk of aspiration . Do not induce vomiting. No milk. No digestible oils. Keep airways free. Call in physician.

Laxative : sodium sulfate (1table spoon/ ¼ l water). Instructions for the doctor:
After ingestion of large amounts: gastric lavage.

5. FIRE – FIGHTING MEASURES

Suitable extinguishing media : Water, powder, foam.

Special risks : Combustible. Vapours heavier than air. Formation of explosible mixtures possible with air. Development of hazardous combustion gases or vapours possible in the event of fire. Keep away from sources of ignition. Take measures to prevent electrostatic charging.

Special protective equipments for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other information: Cool container with spray water from a safe distance. Prevent fire-fighting water from entering surface water or ground water.



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6. ACCIDENTAL RELEASE MEASURES

Person -related precautionary measures: Do not inhale vapours/aerosols.

Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental –protection measures:

Do not allow to enter sewerage system ; risk of explosion.

Procedures for cleaning/absorption: Take up with liquid-absorbent material (e.g. Chemizorb). Forward for disposal. Clean up effected area.

7. HANDLING AND STORAGE

Handling : Notes for prevention of fire and explosion:

Keep away from sources of ignition. Take measures to prevent electrostatic charging.

Notes for safe handling : Avoid generation of vapours/aerosols. Work under hood. Do not inhale substance.

Storage : Tightly closed . In a well-ventilated place. Keep away from sources of ignition and heat .

storage temperature : no restrictions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Specific control parameter

EC Name 2- Butanone

Value 200 ml/m³

600 mg/m³



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Personal protective equipment

Respiratory protection : Required when dusts are generated.

Eye protection : Required

Hand protection : Required

Protective clothing should be selected specifically For the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene : Change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance. Work under hood. Do not inhale substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid
Colour : Colourless
Odour : Of solvents
PH value (20°C) : Neutral
Viscosity dynamic (20°C) : 0.40 mPa*s
Melting temperature : 86 ° C
Boiling temperature(1013 hPa) : 79.6 ° C
Ignition temperature : 514 ° C (DIN 51794)
Flash point : 4 ° C (DIN 51755)
Explosion limits lower : 1.8 vol%
Upper : 11.5 vol%
Vapour pressure (20° C) : 105 hPa
Relative vapour density : 2.48
Density (20°C) : 0.805 g/cm³
Solubility in water(20°C) : 292 g/l



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Ethanol : Soluble
Ether : Soluble
Log Pow : : 0.29 (experimental)

10. STABILITY AND REACTIVITY

Conditions to be avoided : Heating.
Substance to be avoided : Oxidizing agent (i.e. CrO₃, hydrogen peroxide/ nitric acid, hydrogen peroxide/ conc. Sulfuric acid), chloroform/alkali hydroxides..
Hazardous decomposition products : Peroxides.
Further information : Highly inflammable;
Explosible with air in a vapours/gaseous state.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

LC₅₀ (inhalation, rat) : 40 g/m³/2h.

LD₅₀ (dermal, rabbit): >8000 mg/kg.

LD₅₀ (oral, rat) : > 2600 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Severe irritations.

Skin irritation test(rabbit): Slight irritations.

Subacute to chronic toxicity: Sensitization :

Sensitization test (guinea pig): No sensitising effect.

Bacterial mutagenicity : Ames test : negative.



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Further toxicological information:

After inhalation : Irritations of the mucous membranes, coughing, and dyspnoea. Drowsiness, drowsiness.

After skin contact : Slight irritations. Drying-out effect resulting in rough and chapped skin. Danger of skin absorption.

After eye contact : Irritations.

After swallowing : Nausea and vomiting . After accidental swallowing the substance may pose a risk of aspiration . Passage into the lung (vomiting) can result in a condition resembling pneumonia (chemical pneumonitis).

After absorption of large quantities: CNS disorders, drowsiness,dizziness,inebriation, drop in blood pressure,narcosis. Causes impaired function of : respiratory tract, heart.

Other notes: The following applies to Ketones in general :
When vapours/aerosols occur, mucosal irritations, coughing, and dyspnoea after inhalation. The absorption of large quantities leads to : CNS depression(narcosis). Repeated skin contact leads to a degreasing effect,with secondary inflammation possible.

Toxic effects on the liver and kidneys cannot be excluded after high doses. The inhalation of droplets may result in the formation of oedemas in the respiratory tract.

Further data: The product should be handled with the care usual when dealing with chemicals.



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12. ECOLOGICAL INFORMATION

Abiotic degradation : Rapid degradation.(air).

Biologic degradation : Readily biodegradable (reduction : DOC>70%;
BOD >60 % BOD₅ to COD >50%).

Behavior in environmental compartments:

Distribution : log p(o/w): 0.29 (experimental).

No bioaccumulation is to be expected (log p(o/w) <1).

Ecotoxic effects : Biological effects:

Fish toxicity : P.promelas LC₅₀ : 3220 mg/l /96 h.

Daphnia toxicity : Daphnia magna EC₅₀ : 5091 mg/l/48 h.

Algeal toxicity : Sc. Quadricauda IC₅ : >- 4300 mg/l/7d.

Bacterial toxicity : Ps.putida EC₅: 1150 mg/l/16h.

Further ecologic data : TOD: 2.44 g/g; BOD76% from TOD/5d; COD 95% from TOD.

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. DISPOSAL METHOD

Product : Chemicals must be disposed of in compliance with the respective national regulations. Under [www. Retrologistik. De](http://www.Retrologistik.de) you will find country- and substance-specific information as well as contact partners.

Packaging : Nice product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www. retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.



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14. TRANSPORT INFORMATION

Transport over land ADR/RID and GGVS/GGVE

GGVS/GGVE class : 3 Number and letter : 3 b

ADR/RID class : 3 Number and letter : 3 b

Name of material : 1193 METHYL ETHYL KETONE(ETHYL
METHYL KETONE)

Rriver transport AND/ADNR : not examined

Sea transport IMDG

IMDG class : 3 UN-No.: 1193 Packaging group: 11

EMS : 3-06 MFAG : ----

Correct technical name : ETHYL METHYL KETONE

Air transport ICAO-TI and IATA-DGR

ICAO/IATA class: 3 UN/ID-No.: 1193 Packaging group : 11

Correct technical name : ETHYL METHYL KETONE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : F Highly inflammable

Xi Irritant

R-phrases : 11-36-66-67 Highly flammable . Irritating to eyes .
Repeated exposure may cause skin dryness
or cracking. Vapours may cause droesiness
and dizziness.



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S-phrases : 9-16 Keep container in a well –ventilated place.
Keep away from sources of ignition- No smoking.

EC-No. : 201-159-0 EC label
Water pollution class : ----

16. OTHER INFORMATION

Reason for alteration

- Chapter 8 : specific control parameter.
- Chapter 9 : change/ addition in physical /chemical properties.
- Chapter 11 : toxicological information.
- Chapter 12 : ecological information.

General update.

Regional representation :

The information is given on the authorised Safety Data Sheet for your country.

The information contained here in is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
