

ACETONE

0087
April 1994

CAS No: 67-64-1
RTECS No: AL3150000
UN No: 1090
EC No: 606-001-00-8

2-Propanone
Dimethyl ketone
Methyl ketone
 $C_3H_6O / CH_3-CO-CH_3$
Molecular mass: 58.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water in large amounts, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE			
Inhalation	Sore throat. Cough. Confusion. Headache. Dizziness. Drowsiness. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Dry skin.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain. Blurred vision. Possible corneal damage.	Safety spectacles or face shield. Contact lenses should not be worn.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Nausea. Vomiting. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Personal protection: self-contained breathing apparatus. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Then wash away with plenty of water.	EU classification F Symbol Xi Symbol R: 11-36-66-67 S: (2-)9-16-26 UN classification UN Hazard Class: 3 UN Pack Group: II

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30S1090 NFPA Code: H 1; F 3; R 0	Fireproof. Separated from strong oxidants. Store in an area without drain or sewer access.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers

The vapour is heavier than air and may travel along the ground; distant ignition possible.

Chemical dangers

The substance can form explosive peroxides on contact with strong oxidants such as acetic acid, nitric acid, hydrogen peroxide. Reacts with chloroform and bromoform under basic conditions, causing fire and explosion hazard. Attacks plastic.

Occupational exposure limits

TLV: 500 ppm as TWA, 750 ppm as STEL; A4 (not classifiable as a human carcinogen); BEI issued; (ACGIH 2004).
MAK: 500 ppm 1200 mg/m³ Peak limitation category: I(2); Pregnancy risk group: D; (DFG 2006).

Routes of exposure

The substance can be absorbed into the body by inhalation and through the skin.

Inhalation risk

A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20/C ; on spraying or dispersing, however, much faster.

Effects of short-term exposure

The vapour irritates the eyes and the respiratory tract. The substance may cause effects on the central nervous system, liver, kidneys and gastrointestinal tract.

Effects of long-term or repeated exposure

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the blood and bone marrow.

PHYSICAL PROPERTIES

Boiling point: 56/C
Melting point: -95/C
Relative density (water = 1): 0.8
Solubility in water: miscible
Vapour pressure, kPa at 20/C: 24
Relative vapour density (air = 1): 2.0

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.2
Flash point: -18/C c.c.
Auto-ignition temperature: 465/C
Explosive limits, vol% in air: 2.2-13
Octanol/water partition coefficient as log Pow: -0.24

ENVIRONMENTAL DATA

NOTES

Use of alcoholic beverages enhances the harmful effect.
Card has been partially updated in July 2007: see Occupational Exposure Limits.
Card has been partially updated in January 2008: see Storage.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information