

METHYLACETOACETATE**1086**

November 2003

CAS No: 105-45-3
RTECS No: AK5775000
EC No: 607-137-00-0Acetoacetic acid methyl ester
Butanoic acid, 3-oxo-, methyl ester
1-Methoxybutane-1,3-dione
C₅H₈O₃
Molecular mass: 116.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Alcohol-resistant foam, powder, carbon dioxide.
EXPLOSION	Above 77°C explosive vapour/air mixtures may be formed.	Above 77°C use a closed system, ventilation.	

EXPOSURE			
Inhalation	Cough. Dizziness. Drowsiness. Headache. Sore throat.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin		Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion		Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water. (Extra personal protection: filter respirator for organic gases and vapours.)	Xi Symbol R: 36 S: (2-)26

EMERGENCY RESPONSE	STORAGE
NFPA Code: H2; F2; R0	Separated from oxidants.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Chemical dangers

The substance decomposes on burning producing irritating fumes. Reacts with oxidants.

Occupational exposure limits

TLV not established.
MAK not established.

Routes of exposure

The substance can be absorbed into the body by inhalation of its vapour.

Inhalation risk

No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20°C.

Effects of short-term exposure

The substance is irritating to the eyes and the respiratory tract. Exposure may result in lowering of consciousness.

PHYSICAL PROPERTIES

Boiling point: 171.7°C

Melting point: -27°C

Relative density (water = 1): 1.08

Solubility in water, g/100 ml: 50

Vapour pressure, kPa at 20°C: 0.17

Relative vapour density (air = 1): 4.0

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.01

Flash point: 77°C c.c.

Auto-ignition temperature: 280°C

Explosive limits, vol% in air: 1.4-14.5

Octanol/water partition coefficient as log Pow: -0.26

ENVIRONMENTAL DATA

NOTES

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