

DIMETHYLAMINE (aqueous solution)**1485**
May 2003

CAS No: 124-40-3 Methanamine, N-methyl (aqueous solution)
RTECS No: IP8750000 DMA (aqueous solution)
UN No: 1160 (CH₃)₂NH / C₂H₇N
EC No: 612-001-01-6 Molecular mass: 45.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Water in large amounts, alcohol-resistant foam, dry powder, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Use non-sparking handtools.	In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE	AVOID ALL CONTACT!		
Inhalation	Burning sensation. Cough. Headache. Sore throat. Laboured breathing. Shortness of breath.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
Skin	Redness. Pain. Serious skin burns.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes	Redness. Pain. Blurred vision. Severe deep burns.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Burning sensation. Shock or collapse.	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	
Evacuate danger area! Remove all ignition sources. Cover the spilled material with foam. Collect leaking liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Personal protection: filter respirator for organic gases and vapours.	F+ Symbol C Symbol R: 12-20/22-34 S: (1/2-)3-16-26-29-36/37/39-45 Note: B UN Hazard Class: 3 UN Subsidiary Risks: 8 UN Pack Group: II	Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30GFC-II NFPA Code: H3; F4; R0	Fireproof. Cool. Separated from strong acids, oxidants, aluminium, copper and its alloys, mercury, zinc, food and feedstuffs. Well closed.

IMPORTANT DATA

Physical State; Appearance

SOLUTION IN WATER, WITH PUNGENT ODOUR.

Physical dangers

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

Chemical dangers

The solution in water is a strong base, it reacts violently with acid and is corrosive. Reacts violently with strong oxidants and mercury causing fire and explosion hazard. Attacks aluminium, copper, zinc alloys, galvanized surfaces and plastic.

Occupational exposure limits

TLV: 5 ppm as TWA; 15 ppm as STEL; A4 (not classifiable as a human carcinogen); (ACGIH 2004).

EU OEL: 2 ppm, 3.8 mg/m³, as TWA; 5 ppm, 9.4 mg/m³, as STEL; (EU 1998).

Routes of exposure

The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

Inhalation risk

A harmful contamination of the air will on evaporation of this substance at 20/C be reached very quickly.

Effects of short-term exposure

The substance is corrosive to the eyes and the skin. The vapour is severely irritating to the respiratory tract. Corrosive on ingestion.

PHYSICAL PROPERTIES

Boiling point: 51/C

Melting point: -37/C

Relative density (water = 1): 0.9

Vapour pressure, kPa at 20/C: 26.3

Relative vapour density (air = 1): 1.6

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.14

Flash point: -18/C

Auto-ignition temperature: 400/C

Explosive limits, vol% in air: 2.8-14.4

Octanol/water partition coefficient as log Pow: -0.2

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

NOTES

Toxicity information applies to aqueous solutions containing dimethylamine over 15%, and physical properties will vary according to concentration. Physical properties of this card are for the 40% solution.

See ICSC 0260 Dimethylamine gas in a cylinder.

Card has been partly updated in April 2005. See sections Occupational Exposure Limits, EU classification.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible