

MONOETHYLAMINE (MEA)

Specifications

CAS NO.

CAS NO.	75-04-7
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COMPOSITION

Composition	It is available as 70% solution in water*
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PHYSICAL PROPERTIES

Empirical Formula	C ₂ H ₇ N
Structural formula	(C ₂ H ₅)NH ₂
Molecular Wt.	45.08
Sp. Gravity at 20 °C	0.79 - 0.81
Boiling Point	38 °C
Freezing Point	-83 °C
Colour (APHA) Max	15
Solubility in Water	Soluble
Flash Point	< -17.8 °C
Autoignition Temperature	384 °C
Flammability Limits	L E L: 3.5 Vol % H E L: 14 Vol %

Vapour Pressures

Pressures in mm of Hg	Temperature in °C
325	20
760	38

SPECIFICATIONS

Purity min. (wt. %) by GC	70.00 min
Water Content (max.) % by wt.	29.86 max
Impurities (max.) % by wt.	00.14 max

MSDS

FIRE PROPERTIES

- Extremely flammable compounds.
- Spontaneous when exposed to flames and moderate when exposed to heat.
- Ignition may take place above 30 deg. cen. when mixed with oxidants.,/ul>

EFFECTS

- They irritate skin, eyes, respiratory system and mucous membranes.
- Strongly alkaline in reaction may directly affect skin, causing severe burns.
- High concentrations may affect nervous system, burning of skin, tear formation feeling of suffocation, etc.
- Assumed to be poisonous and irritating if taken by mouth.

PERSONAL SAFETY AND FIRST AID

- In case of spillage, shut off all possible sources of ignition. Cut off sources of supply. Keep surrounding area cool under water fog. Use water, carbondioxide or dry powder for extinguishing the fire.
- In case of ingestion of liquid and inhalation carry the victim to fresh air. Administer oxygen if available.
- Do not allow the victim to walk and keep him warm.
- In the event of skin contact, immediately remove contaminated clothing and flush the affected areas large amounts of water.2% acetic acid may be used to wash the skin.
- In the event of contact with eyes, flush the eyes thoroughly with water.
- Workers overcome by gas should be removed to fresh air at once.
- Call a doctor or take the victim to the hospital immediately.

Applications

TEXTILES: As a raw material in the manufacture of Carbamate Formaldehyde condensate used for Wash and Wear fabrics.

AGRO CHEMICALS: As a raw material for Herbicides like Atrazine, Simazine and Cyanazine.

PLASTICS: As a catalyst in the production of Urethane foam

DYESTUFF: As intermediate / catalyst in the production of Ethyl cyano Pyrolidone disperse and Reactive Dyes.

STORAGE: Can be handled in a safe manner in containers. Great care should be taken when the containers and vials of sample are to be opened because of its vapour pressure. Avoid contact with copper and its alloys.

HEALTH & SAFETY: Monoethylamine is irritating to skin, eyes and mucous membrane. In case of contact, affected area should be washed with plenty of water. A dilute solution of Acetic Acid (2%) should be used to neutralize the Amine. Continuous inhalation of fumes and ingestion should be avoided. In event of inhalation or ingestion, victim should be moved to fresh air and oxygen should be administered. Vapours of Acetic acid (2%) or vinegar diluted 1:5 with water should be inhaled. To dilute the chemical in stomach, patient should consume copious quantity of milk and water. A medical practitioner should be consulted at once.

PACKAGING: MEA 70% soln. is available in 160kgs. UN Approved Mild Steel Drums.

IMDG CLASS: Class 3

PACKING GROUP AS PER IMO: II

UN CODE NO. : 270

BRUSSELS T.NO. : 2921.11.00