

## Monoethanolamine (MEA)

### SECTION 1: PRODUCT DESCRIPTION

<b>TRADE NAME</b>	Monoethanolamine Pure (MEOA PURE)
<b>SYNONYM</b>	MEOA
<b>ARPC Product Code</b>	3301
<b>CHEMICAL NAME</b>	2 - Aminoethanol
<b>FORMULA</b>	C2 H7 NO

### SECTION 2: HAZARDS IDENTIFICATION

<b>INHALATION</b>	Inhalation of vapors or mist will cause burns to the respiratory tract.
<b>SKIN CONTACT</b>	Contact will cause corrosive burns of tissues.
<b>EYE CONTACT</b>	Contact will cause corrosive burns of tissues.
<b>INGESTION</b>	Ingestion will cause adverse health effects.

### SECTION 3: FIRST AID MEASURES

<b>INHALATION</b>	Remove to fresh air. Assist breathing if necessary. Consult a physician.
<b>SKIN CONTACT</b>	Rinse with flowing water for at least 15 minutes. Consult a physician immediately.
<b>EYE CONTACT</b>	Flush immediately with water for at least 15 minutes. Consult a physician immediately.
<b>INGESTION</b>	Give water or milk. Do not induce vomiting. Consult a physician immediately.

### SECTION 4: FIRE AND EXPLOSION HAZARS

<b>FLASHPOINT</b>	95 °C
<b>LOWER FLAMMABLE LIMITS</b>	2.5
<b>UPPER FLAMMABLE LIMITS</b>	13.1
<b>AUTO – IGNITION TEMP</b>	410 °C
<b>BURNING RATE</b>	-
<b>EXPLOSION POWER</b>	-
<b>EXTINGUISHING MEDIA</b>	[x]WATER [x]WATER FOG [x]CO2 [x]FOAM [x]DRY CHEMICAL
<b>FIRE FIGHTING PROCEDURES</b>	Wear self-contained breathing apparatus in confined areas or when exposed to combustion products.

**SECTION 5: TOXICOLOGICAL INFORMATION: -**
**SECTION 6: PHYSICAL DATA**

<b>APPEARANCE AND ODOR:</b> Colorless liquid, ammonia-like odor	<b>VAPOR PRESSURE:</b> 0.58 mbar @ 26.9 C
<b>SOLUB. In WATER:</b>	<b>BOILING POINT:</b> 168-172°C
<b>SOLUB: in OTHER:</b>	<b>MELTING POINT:</b> 10.5
<b>EVAPORATION RATE:</b>	<b>MOLECULAR WEIGHT:</b> 61.08
<b>DECOMO. TEMP:</b>	<b>VISCOSITY:</b> 25.6cp

**SECTION 7: HAZARDOUS INGREDIENTS**

INGREDIENTS	% (W/W)	T.L.V	TOXICOLIGICAL	CAS NO.
Monoethanol amine	90-100		LD50 Oral-rat: 1510 mg/kg	141-43-5

**SECTION 8: HEALTH DATA:**
**TOXICITY:**

Acute oral LD50: 1510 mg/kg Tested on Rat

Acute dermal LD50: 1000 mg/kg Tested on Rabbit

Acute inhalation (rat): No mortality after 8 hours exposure in a highly enriched and/or saturated atmosphere at ambient temperatures.

**ROUTE OF ENTRY:** [x] EYE [x] SKIN [x] INGESTION [ ] INHALATION

**EFFECTS OF ACUTE EXPOSURE:**
**EFFECTS OF CHRONIC EXPOSURE:**
**SECTION 9: PROTECTION INFORMATION**

\*VENTILATION\*

GENERAL MECHANICAL: N/A

**LOCAL EXHAUST:** Preferred

**OTHER:** N/D

**RESPIRATORY:** Approved respirator if TLV is exceeded.

**PROTECTIVE GLOVES:** Rubber or plastic.

**EYE PROTECTION:** Goggles and face shield.

**OTHER MEASURES:** Impermeable apron and boots to prevent skin contact.

**SECTION 10: REACTIVITY DATA**

<b>STABILITY</b>	Stable.
<b>CONDITIONS TO AVOID</b>	Heat, sparks, open flames.
<b>INCOMPATIBILITY</b>	Acids (exothermic reaction). Corrodes aluminum, copper, magnesium, zinc and alloys containing them.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Unknown other than CO, CO2 and NOx.
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur.

### SECTION 11: SPILL AND DISPOSAL PROCEDURES.

Contain large spills and pump away. Small spills can be covered with absorbent material. Wear full protective gear.

**WASTE DISPOSAL:** Incinerate in a licensed facility. Observe local regulations.

### SECTION 12: HANDLING AND STORAGE

Avoid eye and skin contact. Avoid inhaling. Store in a cool, dry and well ventilated location.

Keep containers tightly closed. Protect opened containers with dry inert gas before reclosing. Store away from ignition sources.

### SECTION 13: ECOLOGICAL INFORMATION

#### BIODEGRADABILITY:

BOD5-Value: 800 mg/g

ANALYSIS METHOD

>70% BOD of the ThOD

METHOD OECD 301C/ ISO 9408/ EEC 84/ 449/ V, C.7

#### AQUATIC TOXICITY:

LC50: 224-225 mg/l TIME: 48 hrs SPECIES: Leuciscus idus

LC50: 120-140 mg/l TIME: 24 hrs SPECIES: Daphnae

**INHIBITION OF BACTERIA IN EFFLUENT:** None, if properly introduced into acclimated biological treatment facility.

### SECTION 13: ECOLOGICAL INFORMATION:

**ECOTOXICITY:** This material is highly soluble in water. Laboratory toxicity tests indicate that is not significantly toxic to fish and aquatic invertebrates, although amphibians may be more sensitive. Wildlife species may be more susceptible since mammals and birds do not readily metabolize this material. The odor and flavor of this material may attract some wildlife and cause them to consume spilled material.

**ENVIRONMENTAL FATE AND PATHWAY:** This material will biodegrade relatively rapidly in both soil and water, and will not persist in the environment. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems. Persistence and Degradability Bioaccumulation: Because of this material's high solubility and rapid biodegradability, it is unlikely that bioaccumulation will occur in aquatic or terrestrial systems. Models estimate that this material will preferentially partition to water versus air or soil.

### SECTION 14: HAZARDS CLASSIFICATION:

<b>SHIPPING NAME</b>	Ethanolamine
<b>HAZARD CLASS</b>	8
<b>UN/NA NUMBER</b>	2491
<b>PACKING GROUP</b>	3
<b>SUBSIDIARY HAZARD</b>	

**SECTION 15: ACCIDENTAL RELEASE MEASURES:**

**RELEASE RESPONSE**

Do not touch or walk through spilled material. Stop leak if you can do it without risk. Soak up small spills with inert solids and shovel into suitable disposal containers. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spills, soak up with absorbent material and place in properly labeled containers for disposal. Prevent entry into waterways, sewers, basements or confined areas.

**SECTION 16: OTHER INFORMATION:**

Prepared by Marketing and sales service Department