



## SAFETY DATA SHEET

### DIETHANOLAMINE

#### 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: DIETHANOLAMINE

Recommended use: Chemical for industrial

Manufacturer/Supplier: **MODERN CHEMICAL CO.,LTD.**  
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#### 2. HAZARDS IDENTIFICATION

##### Label elements

Pictogram



Signal word

Danger

##### Hazard statement(s)

- 1.) Causes skin irritation.
- 2.) May be fatal if swallowed and enters airways.
- 3.) May cause drowsiness or dizziness.
- 4.) Toxic to aquatic life with long lasting effects.
- 5.) Suspected to damaging fertility or the unborn child.

##### Precautionary statement(s)

- 1.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- 2.) Avoid release to the environment.
- 3.) IF SWALLOWED: call a doctor/physician.



4.) IF IN EYES: Rinse cautiously with water for 15 minutes.

5.) IF ON SKIN Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonym:** No data available

Ingredients	% (w/w)	CAS NO.
DIETHANOLAMINE	100	111-42-2

### 4. FIRST AID MEASURES

**Inhalation:**

When exposed to large amounts of steam and mist, move to fresh air. Take specific treatment if needed. Get medical attention immediately. If breathing is stopped or irregular give artificial respiration and supply oxygen.

**Skin contact:**

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Laundering enough contaminated clothing before reuse. Get medical attention immediately. Remove contaminated clothing, shoes and isolate. Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

**Eye contact:**

Do not rub your eyes. Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician. Get medical attention immediately.

**Ingestion:**

About whether I should induce vomiting. Take the advice of a doctor. Rinse your mouth with water immediately. Get medical attention immediately.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media**

No data available

**Specific hazards arising from Chemicals**

No data available

**Special protective equipment for fire-fighters.**

Wear full protective clothing and positive pressure breathing apparatus.



## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Use personal protective equipment. Avoid breathing vapor, mist or gas. Ensure adequate ventilation.

### Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods and Material for Containment and Clean Up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling & Product Transfer:

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

### Conditions for Safe Storage & Unsuitable Materials:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits:** TWA 2 mg/m<sup>3</sup> (0.46 ppm)

**Appropriate Engineering Controls:** The product should only be used in ventilation hoods and fans.

### Individual Protection Measures

#### Respiratory protection:

Where air-filtering respirators are suitable.

#### Hand protection:

Wear impervious chemical resistant gloves.

#### Eye protection:

Avoid eye contact. Chemical type goggles should be worn. Do not wear contact lenses

#### Skin and body protections:

Workers should be wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry - cleaned.

#### Hygiene measures:

Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form, Color and Odor:</b> liquid, Clear liquid, ammonia-like	<b>Evaporation rate:</b> N/A
<b>Melting Point:</b> 27°C	<b>Specific gravity:</b> 1.0919 g/cm <sup>3</sup> at 20 °C
<b>pH:</b> 11.5	<b>Solubility in water:</b> Miscible
<b>Boiling point:</b> 269.9°C	<b>Viscosity:</b> N/A
<b>Vapour pressure :</b> 0.028 hPa at 25°C	<b>Vapour density:</b> N/A
<b>Lower explosive limits:</b> 1.0%Vol	<b>Upper explosive limits:</b> 17%Vol
<b>Auto-ignition temperature:</b> N/A	<b>Flash Point:</b> 154.4 °C
<b>Odor threshold:</b> N/A	<b>Flammability (solid, gas):</b> N/A
<b>Decomposition temperature:</b> N/A	<b>Solubility in other solvents:</b> N/A
<b>n-octanol/water partition coefficient (log P<sub>ow</sub>):</b> N/A	

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	No data available
<b>Reactions:</b>	No data available
<b>Possibility of Hazardous Reactions:</b>	No data available
<b>Conditions to avoid:</b>	This material reacts violently with acids.
<b>Materials to avoid:</b>	Strong oxidizing agents. This material is corrosive to copper, zinc, aluminum and their alloys.
<b>Hazardous decomposition products:</b>	Toxic levels of ammonia, combustion products of nitrogen, carbon dioxide, carbon monoxide, irritating aldehydes and ketones may be formed on burning in a limited air supply.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50 (Oral, rat): 1.41 g/kg LD50 (Dermal, rat): >5.00 g/kg
<b>Sensitization:</b>	No data available
<b>Chronic toxicity:</b>	In a chronic (two years) exposure study, sponsored by the National Toxicology Program (NTP), rats and mice were dermally exposed to Diethanolamine (DEA). Both male and female mice showed an increased incidence of liver tumors, and male mice showed an



increased incidence of kidney tumors. In contrast, male and female rats did not show any increased incidence of tumors. NTP concluded, using their standard classification scheme, that there is “no evidence” of cancer in male and female rats, and “clear evidence” of liver and kidney cancer in male mice and “clear evidence” of liver cancer in female mice.

**Further toxicological information:** No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish: DEA is expected to have low toxicity to aquatic species.

Toxicity to algae No data available

Toxicity to aquatic invertebrates: No data available

Toxicity to bacteria No data available

Biodegradability Remarks: DEA is ready biodegradable and is not expected to persist in the environment.

Bioaccumulative Potential: DEA is not expected to bioaccumulate (log Kow= -1.43)

Mobility: DEA is not expected to selectively partition and absorb to soil or sediments.

Affected in any other way: No data available

## 13. DISPOSAL CONSIDERATIONS

**Material Disposal:** Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber.

**Container Disposal:** Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### ADR/DOT

Not regulated



## IMGD

Not regulated

## IATA

Not regulated

## 15. REGULATORY INFORMATION

### GHS-Labeling

#### Hazard statement(s):

No data available

#### Precautionary statement(s):

No data available

#### R - phrase(s):

No data available

#### S - phrase(s):

No data available

## 16. OTHER INFORMATION

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