

# 2-(DIMETHYLAMINO)-ETHANOL FOR SYNTHESIS MSDS

CAS-No.: 108-01-0 MSDS



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
:  
EC Index-No. : 603-047-00-0  
EC-No. : 203-542-8  
CAS-No. : 108-01-0  
Product code : B-01029  
Formula : C4H11NO  
Synonyms : N,N-Dimethylethanolamine

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Bio-Chem Chemicals  
5455, Nicholson Road Science Market,  
Ambala Cantt. 133001 Haryana (India)  
+91-82952 41953  
[info@biofinechemical.com](mailto:info@biofinechemical.com) - [www.biofinechemical.com](http://www.biofinechemical.com)

#### 1.4. Emergency telephone number

Emergency number : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H226  
Category 3  
Acute toxicity (oral), H302  
Category 4  
Acute toxicity (dermal), H312  
Category 4  
Acute toxicity (inhal.), H332  
Category 4  
Skin corrosion/irritation, H314  
Category 1B

Full text of H statements : see section 16

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### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R20/21/22

C; R34

R10

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H226 - Flammable liquid and vapour.  
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER/doctor

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : 2-(DIMETHYLAMINO)-ETHANOL FOR SYNTHESIS

CAS-No. : 108-01-0

EC-No. : 203-542-8

EC Index-No. : 603-047-00-0

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Wash with plenty of water/.... Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Causes severe skin burns and eye damage.
- Symptoms/effects after inhalation : Harmful if inhaled.
- Symptoms/effects after skin contact : Harmful in contact with skin.
- Symptoms/effects after ingestion : Harmful if swallowed.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

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Precautions for safe handling	: Avoid contact with skin and eyes.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Comply with applicable regulations.
Storage conditions	: Keep container tightly closed. Store in a well-ventilated place.
Incompatible materials	: Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or face shield
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: [In case of inadequate ventilation] wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Molecular mass	: 89.14 g/mol
Colour	: Clear Colorless.
Odour	: amine like.
Odour threshold	: No data available
pH	: 10.5 - 11.0 at 100 g/l at 20 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -70 °C
Freezing point	: No data available
Boiling point	: 134 - 136 °C
Flash point	: 39 °C
Auto-ignition temperature	: 295 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour.

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Vapour pressure	: 8.16 hPa at 20 °C
Relative vapour density at 20 °C	: 3.03
Relative density	: No data available
Density	: 0.89 g/cm <sup>3</sup>
Solubility	: Water: Miscible in water
Log Pow	: 0.55
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.014 - 0.122 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled.

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: 10.5 - 11.0 at 100 g/l at 20 °C

Serious eye damage/irritation : Serious eye damage, category 1, implicit  
pH: 10.5 - 11.0 at 100 g/l at 20 °C

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

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Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if swallowed. Harmful in contact with skin.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

<b>2-(DIMETHYLAMINO)-ETHANOL FOR SYNTHESIS (108-01-0)</b>	
Log Pow	0.55

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
Additional information : Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 2051  
UN-No. (IMDG) : 2051  
UN-No. (IATA) : 2051

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UN-No. (ADN) : 2051

UN-No. (RID) : 2051

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : 2-DIMETHYLAMINOETHANOL

Proper Shipping Name (IMDG) : 2-DIMETHYLAMINOETHANOL

Proper Shipping Name (IATA) : 2-Dimethylaminoethanol

Proper Shipping Name (ADN) : 2-DIMETHYLAMINOETHANOL

Proper Shipping Name (RID) : 2-DIMETHYLAMINOETHANOL

Transport document description (ADR) : UN 2051 2-DIMETHYLAMINOETHANOL, 8 (3), II, (D/E)

Transport document description (IMDG) : UN 2051 2-DIMETHYLAMINOETHANOL, 8 (3), II (31°C o.c.)

Transport document description (IATA) : UN 2051 2-Dimethylaminoethanol, 8 (3), II

Transport document description (ADN) : UN 2051 2-DIMETHYLAMINOETHANOL, 8 (3), II

Transport document description (RID) : UN 2051 2-DIMETHYLAMINOETHANOL, 8 (3), II

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 8 (3)

Danger labels (ADR) : 8, 3



#### IMDG

Transport hazard class(es) (IMDG) : 8 (3)

Danger labels (IMDG) : 8, 3



#### IATA

Transport hazard class(es) (IATA) : 8 (3)

Hazard labels (IATA) : 8, 3



#### ADN

Transport hazard class(es) (ADN) : 8 (3)

Danger labels (ADN) : 8, 3



#### RID

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Transport hazard class(es) (RID) : 8 (3)  
Danger labels (RID) : 8, 3



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II  
Packing group (ADN) : II  
Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : CF1  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02  
Mixed packing provisions (ADR) : MP15  
Portable tank and bulk container instructions (ADR) : T7  
Portable tank and bulk container special provisions (ADR) : TP2  
Tank code (ADR) : L4BN  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 83  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •2W  
APP code : A(fl)

#### - Transport by sea

Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP2  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-C  
Stowage category (IMDG) : A  
Flash point (IMDG) : 31°C o.c.



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Properties and observations (IMDG) : Colourless, flammable liquid with a fishy odour. Flashpoint: 31°C o.c. Miscible with water. Causes burns to skin, eyes and mucous membranes.

MFAG-No : 132

### - Air transport

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y840

PCA limited quantity max net quantity (IATA) : 0.5L

PCA packing instructions (IATA) : 851

PCA max net quantity (IATA) : 1L

CAO packing instructions (IATA) : 855

CAO max net quantity (IATA) : 30L

ERG code (IATA) : 8F

### - Inland waterway transport

Classification code (ADN) : CF1

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E2

Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, EX, A

Ventilation (ADN) : VE01

Number of blue cones/lights (ADN) : 1

### - Rail transport

Classification code (RID) : CF1

Limited quantities (RID) : 1L

Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02

Mixed packing provisions (RID) : MP15

Portable tank and bulk container instructions (RID) : T7

Portable tank and bulk container special provisions (RID) : TP2

Tank codes for RID tanks (RID) : L4BN

Transport category (RID) : 2

Colis express (express parcels) (RID) : CE6

Hazard identification number (RID) : 83

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

2-(DIMETHYLAMINO)-ETHANOL FOR SYNTHESIS is not on the REACH Candidate List

2-(DIMETHYLAMINO)-ETHANOL FOR SYNTHESIS is not on the REACH Annex XIV List

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### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to water (Classification according to AwSV; ID No. 738)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 <H226;H302+H312+H332;H314>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
R10	Flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R34	Causes burns
C	Corrosive

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Xn	Harmful
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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*