

## Chemical Safety Data Sheet MSDS / SDS

**2-((2-(2-(DIMETHYLAMINO)ETHOXY)ETHYL) METHYLAMINO)ETHANOL, 97**

Revision Date:2026-05-31 Revision Number:1

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name : 2-((2-(2-(DIMETHYLAMINO)ETHOXY)ETHYL) METHYLAMINO)ETHANOL, 97  
CBnumber : CB7504022  
CAS : 83016-70-0  
EINECS Number : 406-080-7  
Synonyms : ZF-10,N,N,N'-trimethyl-N'-(2-hydroxyethyl)bis(2-aminoethyl) ether

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Danger

**Precautionary statements**

P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.  
P330 Rinse mouth.  
P501 Dispose of contents/container to.....  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P501 Dispose of contents/container to.....  
P273 Avoid release to the environment.

P501 Dispose of contents/container to.....

P405 Store locked up.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P321 Specific treatment (see ... on this label).

P310 Immediately call a POISON CENTER or doctor/physician.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

#### **Hazard statements**

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H412 Harmful to aquatic life with long lasting effects

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## SECTION 3: Composition/information on ingredients

### **Substance**

Product name	: 2-((2-(2-(DIMETHYLAMINO)ETHOXY)ETHYL) METHYLAMINO)ETHANOL, 97
Synonyms	: ZF-10,N,N,N'-trimethyl-N'-(2-hydroxyethyl)bis(2-aminoethyl) ether
CAS	: 83016-70-0
EC number	: 406-080-7
MF	: C9H22N2O2
MW	: 190.28

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## SECTION 4: First aid measures

### **First Aid Measures**

#### **General advice**

Consult a physician if necessary. Remove to fresh air.

#### **Eye contact**

Wash with plenty of water.

#### **Skin Contact**

Wash skin with soap and water.

#### **Inhalation**

Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration

#### **Ingestion**

Never give anything by mouth to an unconscious person. Clean mouth with water.

### **Most important symptoms and effects, both acute and delayed**

#### **Symptoms**

No information available.

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

### Note to physicians

Treat symptomatically.

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## SECTION 5: Firefighting measures

### Suitable Extinguishing Media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable Extinguishing Media

No information available.

### Specific hazards arising from the chemical

#### Specific hazards arising from the chemical

No information available.

#### Hazardous combustion products

Carbon oxides. Nitrogen oxides (NO<sub>x</sub>).

### Explosion data

#### Sensitivity to Mechanical Impact

No information available.

#### Sensitivity to Static Discharge

No information available.

### Protective equipment and precautions for firefighters

#### Protective equipment and precautions for firefighters

As in any fire, wear self contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Ensure adequate ventilation, especially in confined areas.

#### Environmental precautions

#### Environmental precautions

See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

#### Methods for containment

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Pick up and transfer to properly labeled containers.

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## SECTION 7: Handling and storage

### **Precautions for safe handling**

#### **Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice.

#### **Conditions for safe storage, including any incompatibilities**

##### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature.

##### **Incompatible materials**

None known based on information supplied.

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## SECTION 8: Exposure controls/personal protection

### **Control parameters**

#### **Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **Appropriate engineering controls**

##### **Engineering Controls**

Showers

Eyewash stations

Ventilation systems

#### **Individual protection measures, such as personal protective equipment**

##### **Eye/face protection**

Wear safety glasses with side shields (or goggles).

##### **Skin and Body Protection**

Wear protective gloves and protective clothing.

##### **Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

##### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 9: Physical and chemical properties

### **Information on basic physicochemical properties**

Physical State	liquid
Appearance	Colorless to light yellow Liquid
Odor	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling point	254-259 °C(lit.)
Flash point	118 °C
Liquid Density	No information available
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	12Pa at 25°C
Vapor density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Density and/or relative density	0.95

## SECTION 10: Stability and reactivity

### Reactivity

Not applicable

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous polymerization

No information available.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong oxidizing agents.

### **Hazardous Decomposition Products**

Carbon oxides. Nitrogen oxides (NOx).

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## SECTION 11: Toxicological information

### **Information on likely routes of exposure**

#### **Inhalation**

Classified based on available data. For more details, see section 2.

#### **Eye contact**

Classified based on available data. For more details, see section 2.

#### **Skin Contact**

Classified based on available data. For more details, see section 2.

#### **Ingestion**

Classified based on available data. For more details, see section 2.

### **Information on toxicological effects**

#### **Symptoms**

Classified based on available data. For more details, see section 2.

### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

#### **Chronic Toxicity**

Classified based on available data. For more details, see section 2.

### **Numerical measures of toxicity - Product Information**

#### **Unknown acute toxicity**

Classified based on available data. For more details, see section 2

The following values are calculated based on chapter 3.1 of the GHS document

#### **ATEmix (oral)**

500 mg/kg

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## SECTION 12: Ecological information

### **Ecotoxicity**

Harmful to aquatic life with long lasting effects

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

### **Persistence and degradability**

No information available.

### **Bioaccumulation**

No information available.

## Mobility

No information available.

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## SECTION 13: Disposal considerations

### Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Contaminated packaging

Do not reuse container.

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## SECTION 14: Transport information

### DOT

Not regulated

### IMDG

Not regulated

### IATA

Not regulated

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## SECTION 15: Regulatory information

### International Inventories

All of the components in the product are on the following Inventory lists

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) China (IECSC) ENCS (Japan): Philippines (PICCS)

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Ether

Sudden release of pressure hazard											No									
N,N,N'-Trimethyl-N'-(2-hydroxyethyl)bis(2-aminoethyl)											X	X	-	X	X	X	X	-	X	-
Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS										

N,N,N'-Trimethyl-N'-(2-hydroxyethyl)bis(2-aminoethyl) Ether X X - - X X X - X -

## US Federal Regulations

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

#### Acute health hazard

Yes

#### Chronic Health Hazard

No

#### Fire hazard

No

#### Sudden release of pressure hazard

No

#### Reactive hazard

No

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

## SECTION 16: Other information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.