

# SAFETY DATA SHEET

Creation Date 11-Nov-2010 Revision Date 18-Dec-2025 Revision Number 6

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

Product Name N,N-Diethylethanolamine

Cat No.: AC114330000; AC114330010; AC114330025; AC114330100

CAS No 100-37-8

Synonyms 2-Diethylaminoethanol

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

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

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
Fair Lawn, NJ 07410

Tel: (201) 796-7100

# **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

# 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Flammable liquids

Acute oral toxicity

Category 4

Acute dermal toxicity

Category 3

Acute Inhalation Toxicity - Vapors

Skin Corrosion/Irritation

Category 1

Specific target organ toxicity (single exposure)

Category 3

Category 1

Category 1

Category 3

Target Organs - Respiratory system.

#### **Label Elements**

#### Signal Word

Danger

Revision Date 18-Dec-2025

#### **Hazard Statements**

Flammable liquid and vapor Harmful if swallowed Causes severe skin burns and eye damage May cause respiratory irritation Toxic in contact with skin or if inhaled



### **Precautionary Statements**

### Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground and bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment

Keep cool

Take action to prevent static discharges

Use non-sparking tools

#### Response

Immediately call a POISON CENTER or doctor

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### Skir

Take off contaminated clothing and wash before reuse

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

# Ingestion

Rinse mouth

Do NOT induce vomiting

#### Fire

In case of fire: Use CO2, dry chemical, or foam to extinguish

#### Storage

Store locked up

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

#### Disposa

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

None identified

# Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

# 3. Composition/information on Ingredients

Revision Date 18-Dec-2025

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Component	CAS No	Weight %
Diethylaminoethanol	100-37-8	>95

# 4. First-aid measures

**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Inhalation If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim

ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh

air. Immediate medical attention is required.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and

effects

Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation

Notes to Physician Treat symptomatically

# 5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may

be used to cool closed containers.

Unsuitable Extinguishing Media No information available

**Flash Point** 51.5 °C / 124.7 °F

Method - No information available

Autoignition Temperature 260 °C / 500 °F

**Explosion Limits** 

**Upper** 10.10% **Lower** 0.70%

Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

#### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

### **Hazardous Combustion Products**

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2).

# **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. Thermal decomposition can lead to release of irritating gases and vapors.

# NFPA

Health **Flammability** Instability Physical hazards N/A

## 6. Accidental release measures

**Personal Precautions** 

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges. Should not be released into the environment. Do not flush into surface water or sanitary

**Environmental Precautions** 

sewer system.

Methods for Containment and Clean Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Up

# 7. Handling and Storage

Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

Storage.

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Acids, Strong oxidizing agents. Acid anhydrides. Metals. copper.

# 8. Exposure controls / personal protection

#### **Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Diethylaminoethanol	TWA: 2 ppm	(Vacated) TWA: 10 ppm	IDLH: 100 ppm	TWA: 2 ppm
	Skin	(Vacated) TWA: 50 mg/m <sup>3</sup>	REL = 10 ppm (TWA)	
		Skin	$REL = 50 \text{ mg/m}^3 \text{ (TWA)}$	
		TWA: 10 ppm		
		TWA: 50 mg/m <sup>3</sup>		

#### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations

and safety showers are close to the workstation location. Use explosion-proof

electrical/ventilating/lighting equipment.

**Personal Protective Equipment** 

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard **Respiratory Protection** 

> EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Particulates filter conforming to EN 143. Ammonia and organic ammonia derivatives filter. **Recommended Filter type:** 

### N,N-Diethylethanolamine

Type K. Green. conforming to EN14387.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

# 9. Physical and chemical properties

**Appearance** 

Physical State
Color
Color
Odor
Colorless
Ammonia-like

Odor Threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks</u> <u>• Method</u>

Melting Point/Range -70 °C / -94 °F Softening Point No data available

Boiling Point/Range 161 °C / 321.8 °F @ 760 mmHg

Flash Point 51.5 °C / 124.7 °F Method - No information available

Flammability (liquid) Flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid

Explosion Limits Lower 0.7 vol%

Autoignition Temperature Upper 10.1 vol% 260 °C / 500 °F No data available

**pH** 11 - 12 (@ 20) (10%)

Viscosity No data available

Water Solubility Soluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog PowDiethylaminoethanol0.21

Vapor Pressure 1.9 mbar @ 20 °C

Density / Specific Gravity 0.880

Bulk DensityNot applicableLiquidVapor DensityNo data available(Air = 1.0)

Particle characteristics Not applicable (liquid)

Other Information

Molecular Formula C6 H15 N O Molecular Weight 117.19

**Explosive Properties** explosive air/vapour mixtures possible

# 10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic.

Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Exposure

to light. Incompatible products. Exposure to moist air or water.

Incompatible Materials Acids, Strong oxidizing agents, Acid anhydrides, Metals, copper

Hazardous Decomposition Products Nitrogen oxides (NOx), Carbon monoxide (CO<sub>2</sub>), Carbon dioxide (CO<sub>2</sub>)

**Hazardous Polymerization** No information available.

**Hazardous Reactions**None under normal processing.

### N,N-Diethylethanolamine

# 11. Toxicological information

#### Information on expected route of exposure

Inhalation Not an expected route of exposure. May be harmful if swallowed. Ingestion

**Eyes** Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including

blindness.

Avoid contact with skin. Causes burns. Skin Corrosion/Irritation. Harmful in contact with Skin

skin.

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Diethylaminoethanol			LC50: 4.6 mg/L/4h (Rat)	

**Toxicologically Synergistic** 

**Products** 

No information available

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met Skin Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met (e) germ cell mutagenicity;

Not mutagenic in AMES Test

(f) carcinogenicity; Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Diethylaminoethanol	100-37-8	Not listed				

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system.

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

**Target Organs** None known.

(i) aspiration hazard; Based on available data, the classification criteria are not met

delayed

Symptoms / effects, both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** 

The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** 

This product does not contain any known or suspected endocrine disruptors.

# 12. Ecological information

#### **Ecotoxicity**

Contains a substance which is:. Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Diethylaminoethanol	EC50: = 30 mg/L, 72h	LC50: 1660 - 1920 mg/L,	Not listed	EC50: = 83.6 mg/L, 48h
	(Desmodesmus subspicatus)	96h flow-through (Pimephales promelas)		(Daphnia magna Straus)

Persistence and Degradability

Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** 

No information available.

**Mobility** 

. Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Diethylaminoethanol	0.21

# 13. Disposal considerations

**Waste Disposal Methods** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

# 14. Transport information

DOT

UN-No UN2686

Proper Shipping Name 2-DIETHYLAMINOETHANOL

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

TDG

UN-No UN2686

Proper Shipping Name 2-DIETHYLAMINOETHANOL

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

IATA

UN-No UN2686

Proper Shipping Name 2-DIETHYLAMINOETHANOL

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

IMDG/IMO

UN-No UN2686

Proper Shipping Name 2-DIETHYLAMINOETHANOL

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

# 15. Regulatory Information

# **United States of America Inventory**

Component	CAS No	TSCA	TSCA Inventory notification -	TSCA - EPA Regulatory

Revision Date 18-Dec-2025

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			Active-Inactive	Flags
Diethylaminoethanol	100-37-8	X	ACTIVE	-

#### Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Diethylaminoethanol	100-37-8	Х	-	202-845-2	Χ	Χ	Χ	Х	Х	KE-20903

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### U.S. 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

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

**OSHA** - Occupational Safety and

Health Administration

Not applicable

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** 

This product does not contain any Proposition 65 chemicals.

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

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Diethylaminoethanol	X	X	X	-	X

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

nine Revision Date 18-Dec-2025

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

#### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous	REACH Regulation (EC 1907/2006) article 59 - Candidate List of
		·	Substances	Substances of Very High Concern (SVHC)
Diethylaminoethanol	100-37-8	-	Use restricted. See entry 75. (see link for restriction details)	-

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous	
					Substances (RoHS)	
Diethylaminoethanol	100-37-8	Listed	Not applicable	Not applicable	Not applicable	

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

# Other International Regulations

Component	CAS No	Seveso III Directive	Seveso III Directive	Rotterdam	Basel Convention
		(2012/18/EC) -	(2012/18/EC) -	Convention (PIC)	(Hazardous Waste)
		Qualifying Quantities Qualifying Quantities			
		for Major Accident	for Safety Report		
		Notification	Requirements		
Diethylaminoethanol	100-37-8	Not applicable	Not applicable	Not applicable	Not applicable

# 16. Other Information

Prepared By Product stewardship (Regulatory Affairs)

Thermo Fisher Scientific

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 Creation Date
 11-Nov-2010

 Revision Date
 18-Dec-2025

 Print Date
 18-Dec-2025

**Revision Summary** Updated to the U.S. Department of Labor's Occupational Safety and Health Administration

(OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200,

2024), May 20, 2024, effective July 19, 2024.

**Disclaimer** 

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**