

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-10
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Triethylamine
Product Number : T103288
Brand : aladdin
CAS-No. : 121-44-8

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

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Skin corrosion (Sub-category 1A), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H225	Highly Flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H311+H331	Toxic in contact with skin or if inhaled.
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

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SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: N,N-diethyl-Ethanamine; N,N-Diethylethanamine; TETN ; N,N-Diethylethanamin N,N,N-triethylamine Diethylethanamine
Formula	: C ₆ H ₁₅ N
Molecular weight	: 101.19
CAS No.	: 121-44-8
EC-NO.	: 204-469-4

Component	Classification	Concentration
Triethylamine	Flam. Liq. 2; Acute Tox. 4; Acute Tox. 3; Skin Corr. 1A; Eye Dam. 1; STOT SE 3; H225, H302, H331, H311, H314, H318, H335 Concentration limits: >= 1 %: STOT SE 3, H335;	>99.5% (GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

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5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Light sensitive, Store away from light.

7.3 Specific end use(s)

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no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Component	CAS No.	Value	Control parameters	Basis
1-methyl-2-propylene alcohol	121-44-8	TWA	0.5ppm	Threshold Limits (TLV) of the U.S. Government Conference of Industrial Hygienists (ACGIH)
	Note	Upper respiratory tract irritation Visual impairment Cannot be classified as a human carcinogen There is a risk of being absorbed by the skin		
		STEL	1ppm	Threshold Limits (TLV) of the U.S. Government Conference of Industrial Hygienists (ACGIH)
		Upper respiratory tract irritation Visual impairment Cannot be classified as a human carcinogen There is a risk of being absorbed by the skin		
		See Appendix D - Substances without established RELs		

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		TWA	25ppm100 mg/m3	United States. Contact limits recommended by NIOSH
		The value in mg/m3 is approximate.		
		C	1ppm4.1 mg/m3	Allowable exposure limits for chemical contaminants in California (Section 107, paragraph 8).
		Skin		

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

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

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

a) Appearance	form: Liquid color: Clear Colorless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-115 °C
f) Initial boiling point and boiling range	89 ~ 90°C
g) Flash point	-11 °C
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	0.73
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents

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10.6 Hazardous decomposition products

Other decomposition products - No data available Hazardous decomposition products formed under fire conditions.
- Carbon oxides, Nitrogen oxides (NOx) In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 730 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 3,63 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male - 580 mg/kg

(OECD Test Guideline 402)

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit Result: Corrosive (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405) Risk of corneal clouding. Causes serious eye damage.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

Ames test Salmonella typhimurium Result: negative Rat - male - Bone marrow Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: YE0175000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.,

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spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Central nervous system - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - *Oryzias latipes* (Orange-red killifish) - 24 mg/l - 96 h (OECD Test Guideline 203) Toxicity to daphnia and other aquatic invertebrates semi-static test LC50 - *Ceriodaphnia dubia* (water flea) - 17 mg/l - 48 h (US-EPA) Toxicity to algae EC50 - *Pseudokirchneriella subcapitata* (green algae) - 8 mg/l - 72 h (OECD Test Guideline 201) Toxicity to bacteria static test EC50 - *Pseudomonas putida* - 95 mg/l - 17 h (DIN 38421 TEIL 8)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 29 d Result: 80,3 % - Readily biodegradable. (OECD Test Guideline 301B)

12.3 Bioaccumulative potential

Bioaccumulation *Cyprinus carpio* (Carp) - 42 d at 25 °C - 0,5 mg/l (Triethylamine) Bioconcentration factor (BCF): < 0,5 (OECD Test Guideline 305C) Remarks: Does not bioaccumulate.

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Toxic to aquatic life.

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

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UN number: 1296	Packing group: II	Class: 3(8)
Proper shipping name: Triethylamine	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		
IMDG		
UN number: 1296	Packing group: II	EMS-No: no data available
Proper shipping name: Triethylamine		
IATA		
UN number: 1296	Packing group: II	Class: 3(8)
Proper shipping name: Triethylamine		

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Further information

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