

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product name : Triethylamine
 Product code : T0424
 Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : TCI America
 Address : 9211 N. Harborgate Street Portland, OR 97203 U.S.A.
 Telephone : +1-800-4238616/+1-503-2831681
 Telefax : +1-888-5201075/+1-503-2831987
 E-mail address : sales-US@TCIchemicals.com

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-2867624

Transportation Emergencies: Chemtrec 24-Hour +1-800-4249300 (U.S.A.)/+1-703-5273887 (International)

Recommended use of the chemical and restrictions on use

Recommended use : Use as laboratory reagent

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Flammable liquids : Category 2
 Acute toxicity (Oral) : Category 3
 Acute toxicity (Inhalation) : Category 3
 Acute toxicity (Dermal) : Category 3
 Skin corrosion : Category 1A
 Serious eye damage : Category 1
 Specific target organ toxicity - single exposure : Category 1 (Central nervous system)
 Specific target organ toxicity - single exposure : Category 3 (Respiratory system)
 Specific target organ toxicity - repeated exposure : Category 2 (Respiratory system)
 Short-term (acute) aquatic hazard : Category 2
 Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
 H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.
 H370 Causes damage to organs (Central nervous system).
 H373 May cause damage to organs (Respiratory system) through prolonged or repeated exposure.
 H401 Toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
 P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P260 Do not breathe the mist or vapours.

P264 Wash skin 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.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

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.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	Common Name/Synonym	CAS RN	Concentration (% w/w)
Triethylamine	triethylamine	121-44-8	>= 80 - <= 100 *

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

In case of skin contact : Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Immediately call a POISON CENTER or doctor/ physician.

In case of eye contact : Rinse with plenty of water. If easy to do, remove contact lens, if worn. Immediately call a POISON CENTER or doctor/ physician.

If swallowed : Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO₂)
- Specific hazards during fire-fighting : Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.
- Special protective equipment for firefighters : Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
- Environmental precautions : Prevent product from entering drains.
- Methods and materials for containment and cleaning up : Collect as much of the spill as possible with a suitable absorbent material.

SECTION 7. HANDLING AND STORAGE

- Technical measures : Prevent generation of vapour or mist. Take precautionary measures against static discharge. Use explosion-proof equipment.
- Local/Total ventilation : Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.
- Advice on safe handling : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and face thoroughly after handling.
- Conditions for safe storage : Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Use explosion-proof equipment. Keep under inert gas. Store locked up.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS RN	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Triethylamine	121-44-8	TWA	1 ppm 4.1 mg/m ³	CA AB OEL
		STEL	3 ppm 12 mg/m ³	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		STEL	1 ppm	CA BC OEL
		TWAEV	0.5 ppm	CA QC OEL
		STEV	1 ppm	CA QC OEL

- Engineering measures** : Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

- Respiratory protection : Gas mask, Self-contained breathing apparatus
- Hand protection : Impervious gloves
- Eye protection : Safety glasses, Safety goggles, Face-shield
- Skin and body protection : Impervious protective clothing

*Use personal protective equipment (PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : colourless
- Odour : No data available
- Odour Threshold : No data available

pH	:	12.7 (15 °C)
		Concentration: 100 g/m ³
Melting point/freezing point	:	-115 °C
Boiling point/boiling range	:	89 °C
Flash point	:	-6 °C
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	8 % (V)
Lower explosion limit / Lower flammability limit	:	1.2 % (V)
Vapour pressure	:	7.2 kPa (20 °C)
Relative vapour density	:	3.5
Relative density	:	0.73
Solubility(ies)		
Water solubility	:	170 g/l very soluble (20 °C)
Solubility in other solvents	:	
completely miscible	:	Ether Alcohol Acetone
Partition coefficient: n-octanol/water	:	1.45
Auto-ignition temperature	:	230 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	0.322 mPa.s (35 °C)
Viscosity, kinematic	:	No data available
Molecular weight	:	101.19 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Conditions to avoid	:	Electrical spark Open flame Electrostatic discharge Exposure to air.
Incompatible materials	:	Oxidizing agents, Acids
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO ₂), Nitrogen oxides (NO _x)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity	:	LD ₅₀ (Rat): 460 mg/kg
Acute inhalation toxicity	:	LCLo (Rat): 1000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD ₅₀ (Rabbit): 416.1 mg/kg

Skin corrosion/irritation

Result	:	Causes severe burns.
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Serious eye damage/eye irritation

Result	:	Irreversible effects on the eye
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Respiratory or skin sensitisation

: No information available.

Germ cell mutagenicity : No information available.

Carcinogenicity : No information available.

Reproductive toxicity : No information available.

STOT - single exposure

Assessment : May cause respiratory irritation.

Target Organs : Central nervous system

Assessment : Causes damage to organs.

STOT - repeated exposure

Target Organs : Respiratory system

Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity	: No information available.
Aspiration toxicity	: No information available.
RTECS No.	: YE0175000 (Triethylamine)

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	: LC50 (<i>Oryzias latipes</i> (Japanese medaka)): 24 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (<i>Daphnia pulex</i> (Water flea)): 34 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: EC50 (<i>Selenastrum capricornutum</i> (green algae)): 6.8 mg/l Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity	: Toxic to aquatic life.
Chronic aquatic toxicity	: Harmful to aquatic life with long lasting effects.

Persistence and degradability

Biodegradability	: 28% (by BOD), 93 % (by GC), 44 % (TOC)
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Bioaccumulative potential

Bioconcentration factor (BCF)	: <0.5 (conc. 0.5 mg/L)
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Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	: Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.
Contaminated packaging	: Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	: UN 1296
Proper shipping name	: Triethylamine
Class	: 3
Subsidiary risk	: 8
Packing group	: II

IMDG-Code

UN number	: UN 1296
Proper shipping name	: TRIETHYLAMINE
Class	: 3
Subsidiary risk	: 8
Packing group	: II
EmS Code	: F-E, S-C
Marine pollutant	: yes

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

Not applicable for product as supplied.

National Regulations

TDG

UN number : UN 1296
Proper shipping name : TRIETHYLAMINE
Class : 3
Subsidiary risk : 8
Packing group : II
ERG Code : 132
Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

NPRI Components : Triethylamine
SARA 311/312 Hazards : No SARA Hazards

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Revision Date : 10/07/2024

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.