

# Material Safety Data Sheet

Version: 02

Revision Date : 14-7-2025

## Section 1. Product Information and Company Identification

<b>Product name</b>	Triethylamine		
<b>Mol. formula</b>	C <sub>6</sub> H <sub>15</sub> N	<b>CAS No.</b>	121-44-8
<b>Mol.wt</b>	101,19 g/mol		
<b>manufacturer name</b>	Pioneers for laboratory chemicals		
<b>Brand name</b>	Piochem		
<b>Address</b>	Area 540, Industrial Zone 6th October city Giza, Egypt.		
<b>Website</b>	www.piochem.com		
<b>E-mail</b>	info@piochem.com		
<b>Phone number</b>	0 12 05700001		

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

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 (Category 1A), H314

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

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

F Highly flammable

R11

C Corrosive

R35

Xn Harmful

R20/21/22

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word	Danger
Hazard statement(s)	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H311 + H331	Toxic in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
Supplemental Hazard Statements	none

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	TEA
Formula	:	C <sub>6</sub> H <sub>15</sub> N
Molecular weight	:	101,19 g/mol
CAS-No.	:	121-44-8
EC-No.	:	204-469-4
Index-No.	:	612-004-00-5

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Triethylamine</b>			
CAS-No.	121-44-8	Flam. Liq. 2; Acute Tox. 4;	<= 100 %
EC-No.	204-469-4	Acute Tox. 3; Skin Corr. 1A;	
Index-No.	612-004-00-5	STOT SE 3; H225, H302, H311, H314, H331, H335	

#### Hazardous ingredients according to Directive 1999/45/EC

Component		Classification	Concentration
<b>Triethylamine</b>			

CAS-No. 121-44-8  
EC-No. 204-469-4  
Index-No. 612-004-00-5

F, C, R11 - R20/21/22 - R35 <= 100 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## 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

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

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

### 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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local 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

Store in cool place. 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.

Storage class (TRGS 510): Flammable liquids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

### 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 glove's 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 a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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****9.1 Information on basic physical and chemical properties**

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	amine-like
c) Odour Threshold	No data available
d) pH	12,7 at 100 g/l at 15 °C
e) Melting point/freezing point	Melting point/range: -115 °C
f) Initial boiling point and boiling range	88,8 °C
g) Flash point	-14,99 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 8 %(V) Lower explosion limit: 1,2 %(V)
k) Vapour pressure	68,99 hPa at 20 °C 85,06 hPa at 30 °C
l) Vapour density	3,49 - (Air = 1.0)
m) Relative density	0,726 g/mL at 25 °C
n) Water solubility	112 g/l at 20 °C
o) Partition coefficient: n-octanol/water	log Pow: 1,15
p) Auto-ignition temperature	> 215 °C

- |                              |  |
|------------------------------|--|
| q) Decomposition temperature | No data available  |
| r) Viscosity                 | No data available  |
| s) Explosive properties      | No data available  |
| t) Oxidizing properties      | The substance or mixture is not classified as oxidizing. |

## 9.2 Other safety information

- |                         |                    |
|-------------------------|--------------------|
| Surface tension         | 20,7 mN/m at 20 °C |
| Relative vapour density | 3,49 - (Air = 1.0) |

## 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

### 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 730 mg/kg  
(OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 7,1 mg/l  
(OECD Test Guideline 403)

LD50 Dermal - Rabbit - 580 mg/kg  
(OECD Test Guideline 402)

## Skin corrosion/irritation

Skin - Rabbit

Result: Extremely corrosive and destructive to tissue.  
(OECD Test Guideline 404)

## Serious eye damage/eye irritation

Eyes - Rabbit

Result: Risk of serious damage to eyes.  
(OECD Test Guideline 405)

## Respiratory or skin sensitisation

in vivo assay - Guinea pig

Result: Did not cause sensitisation on laboratory animals.

## Germ cell mutagenicity

No data available

## 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

Inhalation - 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., 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

Toxicity to daphnia and  
other aquatic  
invertebrates

Toxicity to bacteria

Toxicity to algae

LC50 -  
Oryzias latipes  
(Orange-red killifish)  
- 24 mg/l - 96 h

(OECD Test Guideline 203)  
LC50 - Daphnia dubia (water flea) - 17 mg/l - 48 h

NOEC - Pseudokirchneriella subcapitata (green algae) - 1,1 mg/l - 72 h  
(OECD Test Guideline 201)

EC50 - Pseudokirchneriella subcapitata (green algae) - 8 mg/l - 72 h  
(OECD Test Guideline 201)

LC50 - Bacteria - 95 mg/l - 17 h

## 12.2 Persistence and degradability

Biodegradability      aerobic - Exposure time 28 d  
Result: 80 % - Readily biodegradable  
(OECD Test Guideline 301B)

## 12.3 Bioaccumulative potential

Bioaccumulation      Cyprinus carpio (Carp) - 42 d

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

Toxic to aquatic life.

No data available

# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

### Contaminated packaging

Dispose of as unused product.



**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 1296

IMDG: 1296

IATA: 1296

**14.2 UN proper shipping name**

ADR/RID: TRIETHYLAMINE

IMDG: TRIETHYLAMINE

IATA: Triethylamine

**14.3 Transport hazard class(es)**

ADR/RID: 3 (8)

IMDG: 3 (8)

IATA: 3 (8)

**14.4 Packaging group**

ADR/RID: II

IMDG: II

IATA: II

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

**SECTION 15: Regulatory information**

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

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

No data available

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.	Acute toxicity
Flam. Liq.	Flammable liquids
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
Skin Corr.	Skin corrosion
STOT SE	Specific target organ toxicity - single exposure

**Full text of R-phrases referred to under sections 2 and 3**

C	Corrosive
F	Highly flammable
R11	Highly flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R35	Causes severe burns.