

Section 1. Product and Company Identification

**Product Name** Triethylamine  
**CAS Number** 121-44-8

**Parchem - fine & specialty chemicals**  
**415 Huguenot Street**  
**New Rochelle, NY 10801**  
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**EMERGENCY RESPONSE NUMBER**  
CHEMTEL  
Toll Free US & Canada: 1 (800) 255-3924  
All other Origins: 1 (813) 248-0585  
Collect Calls Accepted

Section 2. Hazards Identification

**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 (Category 1A), H314  
Serious eye damage (Category 1), H318  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Acute aquatic toxicity (Category 2), H401

**GHS Label Elements**

**Pictograms:**



**Signal word:** Danger

**Hazard and precautionary statements**

**Hazard statement(s)**

H225 Highly flammable liquid and vapor.  
H302 Harmful if swallowed.  
H311 + H331 Toxic in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H401 Toxic to aquatic life.



**Precautionary statement(s)**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - 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 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.
- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
- 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 or doctor/ physician.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- 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.
- P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** none

Section 3. Composition / Information on Ingredients

**Common Name** Triethylamine  
**Synonym(s)** TEA  
**Formula** C<sub>6</sub>H<sub>15</sub>N  
**CAS Number** 121-44-8

COMPONENT	CAS NUMBER	CONCENTRATION
Triethylamine	121-44-8	≤ 100%



#### Section 4. First Aid Measures

##### Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**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. Continue rinsing eyes during transport to hospital.

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

**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.

**Indication of any immediate medical attention and special treatment needed:** No data available

#### Section 5. Firefighting Measures

##### Extinguishing media

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** No data available

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** Use water spray to cool unopened containers.

#### Section 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**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.

**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.

#### Section 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.



**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.

**Storage class (TRGS 510):** Flammable liquids

Section 8. Exposure Controls / Personal Protection

**Triethylamine, 121-44-8**

**TWA:** 1.000000 ppm, USA. ACGIH Threshold Limit Values (TLV)

**Remarks:** Upper Respiratory Tract irritation

Visual impairment

See Notice of Intended Changes (NIC)

Not classifiable as a human carcinogen

Danger of cutaneous absorption

**TWA:** 1 ppm, USA. ACGIH Threshold Limit Values (TLV)

Upper Respiratory Tract irritation

Visual impairment

See Notice of Intended Changes (NIC)

Not classifiable as a human carcinogen

Danger of cutaneous absorption

**STEL:** 3.000000 ppm, USA. ACGIH Threshold Limit Values (TLV)

Upper Respiratory Tract irritation

Visual impairment

Adopted values or notations enclosed are those for which changes are proposed in the NIC

See Notice of Intended Changes (NIC)

Not classifiable as a human carcinogen

Danger of cutaneous absorption

**STEL:** 3 ppm, USA. ACGIH Threshold Limit Values (TLV)

Upper Respiratory Tract irritation

Visual impairment

Adopted values or notations enclosed are those for which changes are proposed in the NIC

See Notice of Intended Changes (NIC)

Not classifiable as a human carcinogen

Danger of cutaneous absorption

**TWA:** 25.000000 ppm; 100.000000 mg/m<sup>3</sup>, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m<sup>3</sup> is approximate.

**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. Face shield (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.

### Full contact

**Material:** Nitrile rubber

**Minimum layer thickness:** 0.4 mm

**Break through time:** 480 min

**Material tested:** Camatril® (KCL 730 / Aldrich Z677442, Size M)

### Splash contact

**Material:** Nitrile rubber

**Minimum layer thickness:** 0.2 mm

**Break through time:** 49 min

**Material tested:** Dermatril® P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**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 multipurpose 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

**Form:** liquid, clear

**Color:** colorless

**Odor:** amine-like

**Odor Threshold:** No data available

**pH:** 12.7 at 100 g/l at 15 °C (59 °F)



**Melting point/range:** -115 °C (-175 °F) - lit.

**Initial boiling point and boiling range:** 88.8 °C (191.8 °F) - lit.

**Flash point:** -14.99 °C (5.02 °F) - closed cup

**Evaporation rate:** No data available

**Flammability (solid, gas):** No data available

**Upper/lower flammability or explosive limits:**

Upper explosion limit: 8 %(V)

Lower explosion limit: 1.2 %(V)

**Vapor pressure:**

68.99 hPa (51.75 mmHg) at 20 °C (68 °F)

85.06 hPa (63.80 mmHg) at 30 °C (86 °F)

**Vapor density:** 3.49 - (Air = 1.0)

**Relative density:** 0.726 g/cm<sup>3</sup> at 25 °C (77 °F)

**Water solubility:** 112 g/l at 20 °C (68 °F)

**Partition coefficient: n-octanol/water log Pow:** 1.15

**Auto-ignition temperature:** > 215 °C (> 419 °F)

**Decomposition temperature:** No data available

**Viscosity:** No data available

**Explosive properties:** No data available

**Oxidizing properties:** The substance or mixture is not classified as oxidizing.

**Surface tension:** 20.7 mN/m at 20 °C (68 °F)

**Relative vapor density:** 3.49 - (Air = 1.0)

#### Section 10. Stability and Reactivity

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** Vapors may form explosive mixture with air.

**Conditions to avoid:** Heat, flames and sparks.

**Incompatible materials:** Strong oxidizing agents

**Hazardous decomposition products:** Other decomposition products - No data available

#### Section 11. Toxicological Information

##### 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)

No data available



**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 sensitization:** in vivo assay - Guinea pig

**Result:** Did not cause sensitization 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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**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

Central nervous system - Irregularities - Based on Human Evidence

## Section 12. Ecological Information

### 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

LC50 - *Daphnia dubia* (water flea) - 17 mg/l - 48 h

Toxicity to algae 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)

Toxicity to bacteria LC50 - Bacteria - 95 mg/l - 17 h



**Persistence and degradability:**

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

**Bioaccumulative potential:**

Bioaccumulation *Cyprinus carpio* (Carp) - 42 d  
Bioconcentration factor (BCF): < 0.5  
(OECD Test Guideline 305C)

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

**DOT (US)**

**UN number:** 1296

**Class:** 3 (8)

**Packing group:** II

**Proper shipping name:** Triethylamine

**Reportable Quantity (RQ):** 5000 lbs

**Poison Inhalation Hazard:** No

**IMDG**

**UN number:** 1296

**Class:** 3 (8)

**Packing group:** II EMS-No: F-E, S-C

**Proper shipping name:** TRIETHYLAMINE

**IATA**

**UN number:** 1296

**Class:** 3 (8)

**Packing group:** II

**Proper shipping name:** Triethylamine





Section 15. Regulatory Information

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** The following components are subject to reporting levels established by SARA Title III,

**Section 313:** Triethylamine

CAS-No. 121-44-8

Revision Date 2007-07-01

**SARA 311/312 Hazards:** Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:** Triethylamine

CAS-No. 121-44-8

Revision Date 2007-07-01

**Pennsylvania Right To Know Components:** Triethylamine

CAS-No. 121-44-8

Revision Date 2007-07-01

**New Jersey Right To Know Components:** Triethylamine

CAS-No. 121-44-8

Revision Date 2007-07-01

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**HMIS Rating**

**Health hazard:** 2

**Chronic Health Hazard:** \*

**Flammability:** 3

**Physical Hazard:** 0

**NFPA Rating**

**Health hazard:** 2

**Fire Hazard:** 3

**Reactivity Hazard:** 0

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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