

TRIETHYLAMINE FOR DNA & PEPTIDE SYNTHESIS MSDS

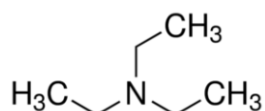
CAS No: 121-44-8 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
:
EC index no : 612-004-00-5
EC no : 204-469-4
CAS No : 121-44-8
Product code : 6364A
Chemical structure :



Synonyms : TEA

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225
Acute toxicity (oral), Category 4 H302
Acute toxicity (dermal), Category 4 H312
Acute toxicity (inhal.), Category 4 H332
Skin corrosion/irritation, Category 1A H314
Serious eye damage/eye irritation, Category 1 H318

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Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11

Xn; R20/21/22

C; R35

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : TRIETHYLAMINE FOR DNA & PEPTIDE SYNTHESIS
CAS No : 121-44-8
EC no : 204-469-4
EC index no : 612-004-00-5

Full text of R- and H-phrases: see section 16

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3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment is urgent (see ... on this label).
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Specific measures (see ... on this label). Wash with plenty of soap and water. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : 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. Specific treatment (see ... on this label).
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label).

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : Harmful if inhaled.
- Symptoms/injuries after skin contact : Harmful in contact with skin.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : No naked lights. No smoking. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment. Comply with applicable regulations.
Storage conditions : Keep in fireproof place. Keep container tightly closed. Store in original container. Store in a well-ventilated place.
Incompatible materials : Heat sources.
Packaging materials : Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection : protective gloves
Eye protection : Chemical goggles or face shield
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Molecular mass : 101.19 g/mol
Colour : Clear Colorless.
Odour : strong ammonia-like odor.
Odour threshold : No data available
pH : No data available

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| | |
|--|---|
| Relative evaporation rate (butylacetate=1) | : 5.6 |
| Melting point | : -1150 °C |
| Freezing point | : No data available |
| Boiling point | : 88.8 °C |
| Flash point | : -110 °C |
| Auto-ignition temperature | : 312 °C |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Flammable Highly flammable liquid and vapour |
| Vapour pressure | : 68.99 hPa at 20 °C |
| Relative vapour density at 20 °C | : 3.5 |
| Relative density | : No data available |
| Density | : 0.73 g/cm ³ |
| Solubility | : Water: 5.5 g/100ml @ 20°C |
| Log Pow | : 1.15 |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 0.012 - 0.08 vol % |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases. Thermal decomposition generates : Corrosive vapours.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled.

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Additional information : Corrosive to the respiratory tract

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if swallowed. Harmful in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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| | |
|---------|------|
| Log Pow | 1.15 |
|---------|------|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1296
UN-No. (IMDG) : 1296
UN-No.(IATA) : 1296
UN-No.(ADN) : 1296
UN-No. (RID) : 1296

14.2. UN proper shipping name

Proper Shipping Name (ADR) : TRIETHYLAMINE
Proper Shipping Name (IMDG) : TRIETHYLAMINE
Proper Shipping Name (IATA) : TRIETHYLAMINE
Proper Shipping Name (ADN) : TRIETHYLAMINE
Proper Shipping Name (RID) : TRIETHYLAMINE
Transport document description (ADR) : UN 1296 TRIETHYLAMINE, 3 (8), II, (D/E)
Transport document description (IMDG) : UN 1296 TRIETHYLAMINE, 3 (8), II (-11°C c.c.)
Transport document description (IATA) : UN 1296 TRIETHYLAMINE, 3 (8), II
Transport document description (ADN) : UN 1296 TRIETHYLAMINE, 3 (8), II
Transport document description (RID) : UN 1296 TRIETHYLAMINE, 3 (8), II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3 (8)
Danger labels (ADR) : 3, 8



IMDG

Transport hazard class(es) (IMDG) : 3 (8)
Danger labels (IMDG) : 3, 8



IATA

Transport hazard class(es) (IATA) : 3 (8)

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Hazard labels (IATA) : 3, 8



ADN

Transport hazard class(es) (ADN) : 3 (8)

Danger labels (ADN) : 3, 8



RID

Transport hazard class(es) (RID) : 3 (8)

Danger labels (RID) : 3, 8



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : FC

Limited quantities (ADR) : 1L

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T7

Portable tank and bulk container special provisions (ADR) : TP1

Tank code (ADR) : L4BH

Vehicle for tank carriage : FL

Transport category (ADR) : 2

Special provisions for carriage - Operation (ADR) : S2, S20

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Hazard identification number (Kemler No.) : 338

Orange plates :



Tunnel restriction code (ADR) :

D/E

EAC code :

•2WE

APP code :

A(fl)

- Transport by sea

Limited quantities (IMDG) :

1 L

Excepted quantities (IMDG) :

E2

Packing instructions (IMDG) :

P001

IBC packing instructions (IMDG) :

IBC02

Tank instructions (IMDG) :

T7

Tank special provisions (IMDG) :

TP1

EmS-No. (Fire) :

F-E

EmS-No. (Spillage) :

S-C

Stowage category (IMDG) :

B

Stowage and handling (IMDG) :

SW2

Flash point (IMDG) :

-11°C c.c.

MFAG-No

: 132

- Air transport

PCA Excepted quantities (IATA) :

E2

PCA Limited quantities (IATA) :

Y340

PCA limited quantity max net quantity (IATA) :

0.5L

PCA packing instructions (IATA) :

352

PCA max net quantity (IATA) :

1L

CAO packing instructions (IATA) :

363

CAO max net quantity (IATA) :

5L

ERG code (IATA)

: 3CH

- Inland waterway transport

Classification code (ADN) :

FC

Limited quantities (ADN) :

1 L

Excepted quantities (ADN) :

E2

Carriage permitted (ADN) :

T

Equipment required (ADN) :

PP, EP, EX, A

Ventilation (ADN) :

VE01

Number of blue cones/lights (ADN) :

1

- Rail transport

Classification code (RID) :

FC

Limited quantities (RID) :

1L

Excepted quantities (RID) :

E2

Packing instructions (RID) :

P001, IBC02

Mixed packing provisions (RID) :

MP19

Portable tank and bulk container instructions (RID) :

T7

Portable tank and bulk container special provisions (RID) :

TP1

Tank codes for RID tanks (RID) :

L4BH

Transport category (RID) :

2

Colis express (express parcels) (RID) :

CE7

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Hazard identification number (RID) : 338

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TRIETHYLAMINE FOR DNA & PEPTIDE SYNTHESIS is not on the REACH Candidate List

TRIETHYLAMINE FOR DNA & PEPTIDE SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 556)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

| | |
|---------------------------|---|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| H225 | Highly flammable liquid and vapour |

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| | |
|-----------|--|
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H332 | Harmful if inhaled |
| R11 | Highly flammable |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed |
| R35 | Causes severe burns |
| C | Corrosive |
| F | Highly flammable |
| Xn | Harmful |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product