

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** Triethanolamine

2 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description**
102-71-6 2,2',2''-nitrilotriethanol
- **Identification number(s)**
- **EINECS Number:** 203-049-8

3 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:** Not applicable.

4 First aid measures

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
- **Handling:**
- **Information for safe handling:** No special requirement
- **Information about fire - and explosion protection:** No special measures required.

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- **Storage:**
- *Requirements to be met by storerooms and receptacles: No special requirements.*
- *Information about storage in one common storage facility: Not required.*
- *Further information about storage conditions: None.*
- **Information about fire - and explosion protection: No special measures required.**
- **Storage:**
- *Requirements to be met by storerooms and receptacles: No special requirements.*
- *Information about storage in one common storage facility: Not required.*
- *Further information about storage conditions: None.*

8 Exposure controls/personal protection

- *Additional information about design of technical facilities: No further data; see item 7.*

- **Ingredients with limit values that require monitoring at the workplace:**

102-71-6 2,2',2''-nitrilotriethanol

TLV (USA)	5 mg/m ³
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- **Additional information:** *The lists valid during the making were used as basis.*

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

- **Respiratory protection:** *Not required.*

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** *Goggles recommended during refilling*

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Ammonia-like

- **Change in condition**

Melting point/Melting range: 17.9°C

Boiling point/Boiling range: 286°C

- **Flash point:** 180°C

- **Ignition temperature:** 305°C

- **Danger of explosion:** *Product does not present an explosion hazard.*

- **Vapour pressure at 20°C:** 0.02 hPa

- **Density at 20°C:** 1.13 g/cm³

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- **Solubility in / Miscibility with water at 20°C:** 1.5 g/l

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

Oral	LD50	8000 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **Marine pollutant:** No

15 Regulatory information

- **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.

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The substance is not subject to classification according to EU lists and other sources of literature known to us.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department
- **Contact:** Mr. Menon