

# Material Safety Data Sheet

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77-86-1	Tris(hydroxymethyl)aminomethane	10-20
%	Xn; R 22-36 EINECS: 201-064-4 RTECS: TY 2900000	
10043-35-3	boric acid	5-10
%	Xn; R 21/22-36/37/38 EINECS: 233-139-2 RTECS: ED 4550000	
6381-92-6	Disodium EDTA	0.1-1.0
%	Xn; R 22-36/37/38 RTECS: AH 4375000	

### ● **3 Hazards identification**

- **Information pertaining to particular dangers for man and environment**
  - not applicable
- **Classification system**

The classification was made according to the latest editions of the EU- lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0-4)**

Health = 0  
Fire = 0  
Reactivity = 0

### ● **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** Induce vomiting and call for medical help.



● **8 Exposure controls and personal protection**

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

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:**  
The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Synthetic gloves
- **Material of gloves** Synthetic gloves
- **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:** liquid
- **Color:** Colorless
- **Odor:** Odorless

- |  | <u>Value/Range</u> | <u>Unit</u> | <u>Method</u> |
|--|--------------------|-------------|---------------|
|--|--------------------|-------------|---------------|

- **Change in condition**

- **Melting point/Melting range:** undetermined
- **Boiling point/Boiling range:** 100 ° C
- **Flash point:** Not applicable
- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:**  
Product does not present an explosion hazard.
- **Vapor pressure:** at 20 ° C 23.0 hPa
- **Density:** Not determined
- **Solubility in / Miscibility with**
- **Water:** Fully miscible
- **pH-value:** at 20 ° C 8.3
- **Solvent content:**
- **Organic solvents:** 0.0 %
- **Water:** 82.7 %
- **Solids content:** 17.3 %

## ● 10 Stability and reactivity

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

## ● 11 Toxicological information

- **Acute toxicity:**  
LD/LC50 values for hazardous components per OSHA criteria:  
  
77-86-1 Tris(hydroxymethyl)aminomethane  
Oral: LD50: 5900 mg/kg (rat)  
  
10043-35-3 boric acid  
Oral: LD50: 2660 mg/kg (rat)
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effects known.

○ **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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

● **12 Ecological information:**

○ **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): 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** Hand over to hazardous waste disposers.

○ **Uncleaned packagings:**

○ **Recommendation:**

Disposal must be made according to official regulations.

○ **Recommended cleansing agent:** Water, if necessary with cleansing agents.

● **14 Transport information**

○ **DOT regulations:**

○ **Hazard class:** -

○ **Land transport ADR/RID (cross-border)**

○ **ADR/RID class:** -

○ **Maritime transport IMDG:**

○ **IMDG Class:** -

○ **Marine pollutant:** No

○ **Air transport ICAO-TI and IATA-DGR:**

○ **ICAO/IATA Class:** -

● **15 Regulations**

- **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**  
**Section 302/304 (40CFR355.30 / 40CFR355.40):**

None of the ingredients is listed.

**Section 313 (40CFR372.65):**

**BT 14 0 0 14 50 586.4**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):**

7732-18-5 water

- **California Proposition 65:**  
**Chemicals known to cause cancer:**

The product does not contain listed components.

**Chemicals known to cause reproductive toxicity:**

The product does not contain listed components.

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

Observe the general safety regulations when handling chemicals  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

○ **Safety phrases:**

60 This material and its container must be disposed of as hazardous waste.

○ **National regulations**

○ **Classification according to VbF:** Void

○ **Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

● **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:** Environmental Health and Safety.

○ **Contact:**

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