

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> |
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- **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):

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:

8.4258 Tm ()Tj /F2 1 Tf 0 -1.1108 TD (N

The product does not contain listed components.

Carcinogenicity categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

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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