

SAFETY DATA SHEET

according to Regulation (EG) no 1907/2006
Generic EU MSDS – No country specific data
REVISION DATE: 2015-11-19

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: Tris-Borate-EDTA Buffer
Article number: 12-9112, 12-9111, 12-9110

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

Identified uses: Laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Medicago AB
Danmark Berga 13
755 98 Uppsala
Telephone: +46 (0)18 56 11 80
Facsimile: +46 (0)18 56 11 88
E-mail address: info@medicago.se

1.4 Emergency telephone number

Emergency telephone number: Giftinformationscentralen 112

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Classified as: Skin irritant (Category 2), H315
Eye irritation (Category 2), H319
Reproductive toxicity (Category 1B), H335
Specific target organ toxicity - single exposure (Category 3), H360FD

Labelling according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)



Signal word: Danger

Hazard statements (s)

H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H360FD May damage fertility. May damage the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours /spray
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 If exposed or concerned: Get medical advice/ attention.

Complementary hazard information: No data available

2.3 Other hazards

No data available

3. Composition/Information on ingredients

3.2 Mixtures

Substance	CAS-no	EC-no	Weight %	Classification according to Regulation (EG) no 1272/2008 (CLP)*
Tris (hydroxymethyl) aminomethane	77-86-1	201-064-4	60-70	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Boric acid	10043-35-3	233-139-2	30-40	Repr. 1B, H360FD
EDTA (Ethylenediaminetetraacetic acid)	60-00-4	200-449-4	0-5	Eye Irrit. 2, H319

*See section 16 for the full text of the H-statements mentioned in this section.

4. First aid measures

4.1 Description of first aid measures

If swallowed

Consult a physician. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

If inhaled

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash immediately with plenty of water and soap. Remove and wash contaminated clothing before reuse.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

4.2 Most important symptoms and effects, both acute and delayed

Toxicity reported for borates in humans: ingestion or absorption can cause nausea, vomiting, diarrhea, cramping in the abdomen, blushing changes on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions and coma. Deaths have been reported to occur in children from doses less than 5 grams, and in adults from 5 to 20 grams. As far as we know, the chemical, physical, and toxicological properties have not been completely explored.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water fog, alcohol-resistant foam, carbon dioxide or dry chemical.

5.2 Specific hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides, boran/borone oxides

5.3 Advice for fire fighters

Wear self-contained breathing apparatus if necessary.

5.4 Further information

No data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Wear personal protective equipment. Do not breathe vapour/mist/gas. Avoid dust formation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let products enter drains.

(Continued on page 3)

6.3 Methods and materials for containment and cleaning up

Pick up and arrange the disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal

6.4 Reference to other sections

For disposal, see section 13.

7. Handling and storage**7.1 Precautions for safe handling**

Avoid exposure. Obtain special instructions before use. Avoid dust and aerosol formation. Provide appropriate local exhaust ventilation where dust can be formed. Avoid contact with skin, eyes and clothing. Wash your hands before and after use.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

No data available.

8. Exposure controls/personal protection**8.1 Control parameters**

No data available

8.2 Exposure controls**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Personal protective equipment**Eye protection/face protection**

Safety glasses with side shields complying with EN166. Use eye protection tested and approved in accordance with the applicable standard, such as NIOSH (US) or 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use the appropriate glove removal technique (without touching the outside of the glove) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with current legislation and good laboratory practice. Wash and dry your hands. The selected protective gloves must meet the requirements of safety gloves EU Directive 89/686/EEC and EN 374 derived from it.

Body protection

Impervious 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 that air purifying face protection is appropriate, use a full-face, particle filters type N100 (United States) or type P3 (143) with cartridge as a backup to the machine control. If the gas mask is the only means, use a full-face with clean air connection. Use respiratory protective devices and equipment tested and approved by the appropriate regulatory standards such as NIOSH (US) or CEN (EUROPE).

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	Form: powder
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid/gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	soluble
Partition coefficient: n-octanol/water	no data available
Autoignition temperature	no data available

(Continued on page 4)

Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

9.2 Other safety information

No data available.

10. Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong oxidizing substances potassium, acid anhydrides

10.6 Hazardous decomposition products

No data available.

11. Toxicological information**11.1 Information on toxicological effects****11.1.2 Mixtures****Acute toxicity**

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Eyes

Causes serious eye irritation.

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Ingestion

May be harmful if swallowed

12. Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Not bioaccumulate

12.4 Mobility in soil

No data available

12.5 Result from PBT- and vPvB-assessment

No data available

12.6 Other adverse effects

Harmful to aquatic life

Water flea Daphnia: LC50 = 115.0-153.0 mg/L; 48 Hr.; Static Condition

Fish: Rainbow trout: LC50=150mg B/L; 24-day

Fish: Goldfish: LC50=46mg B/L; 7-day

13. Disposal considerations

13.1 Waste treatment methods

Disposal shall take place in accordance with applicable regional, national and local laws and regulations. Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. See section 7: handling and storage and section 8: exposure controls/personal protection for further management of information and the protection of employees.

Contaminated packaging

Dispose of as unused product

14. Transport information

14.1 UN-number

ADR-RID, IMDG, IATA: -

14.2 UN proper shipping name

ADR-RID, IMDG, IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR-RID, IMDG, IATA: -

14.4 Packing group

ADR-RID, IMDG, IATA: -

14.5 Environmental hazards

ADR-RID: No

IMDG, water pollutant: No

IATA: No

14.6 Special precautions for user

No data available

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

No data available

15. Regulatory information

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

No data available

15.2 Chemical Safety Assessment

No data available

16. Other information

This information is based on the current state of knowledge.

Text of H-phrases mentioned in section 3

Skin Irrit. 2	Skin irritation (Category 2)
Eye Irrit. 2	Eye irritation (Category 2)
STOT SE 3	Specific target organ toxicity –single exposure (Category 2)
Repr. 1B	Reproductive toxicity (Category 2)
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360FD	May damage fertility. May damage the unborn child.