

Material Safety Data Sheet

Page 1/6

Printing date 04/09/2011

Reviewed on 01/24/2011

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

- Product details:
- Trade name: **10X Tris/Glycine/SDS Buffer**
- Catalog or product number: 1610732, 9701906, 1610772, 1610732EDU, 1610772EDU
- Application of the substance / the preparation Laboratory chemicals
- Manufacturer/Supplier:
Bio-Rad Laboratories, Life Science Group
2000 Alfred Nobel Drive
Hercules, California 94547
(510)741-1000
- Information department: Technical services, customer support.
- Emergency information:
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.
510-741-1000
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.

2 Composition/information on ingredients

- Chemical characterization
- Description: Mixture of the substances listed below with non-hazardous additions.

Listing of dangerous and non-hazardous components:

7732-18-5	water		50-100%
56-40-6	glycine	Xn R22; Xi R36	10-20%
77-86-1	Tris(hydroxymethyl)aminomethane	Xn R22; Xi R36	2.5-5%

- Additional information For the wording of the listed risk phrases refer to section 15.

3 Hazards identification

- Classification of the substance or mixture
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void
- Information concerning particular hazards for human and environment:
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.
- Label elements
- Labelling according to EU guidelines:
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).

(Contd. on page 2)

USA

Material Safety Data Sheet

Page 2/6

Printing date 04/09/2011

Reviewed on 01/24/2011

Trade name: **10X Tris/Glycine/SDS Buffer**

(Contd. of page 1)

- Safety phrases:
60 This material and its container must be disposed of as hazardous waste.

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.

5 Firefighting measures

- Suitable extinguishing agents
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 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:
No special measures required.
No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: No special measures required.
- Storage
- Requirements to be met by storerooms and receptacles: According to product specification
- 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 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.

(Contd. on page 3)

USA

Material Safety Data Sheet

Printing date 04/09/2011

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(Contd. of page 2)

· **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:** Protective gloves.

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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:** Safety glasses

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: liquid
Color: Light yellow
Odor: Odorless

· **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 hPa

· **Density at 20°C:** 0.989 g/cm³

· **Solubility in / Miscibility with**

Water: Fully miscible

· **pH-value at 20°C:** 8.3

· **Solvent content:**

Organic solvents: 0.0 %
Water: 81.4 %

Solids content: 18.6 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Materials to be avoided:**

· **Dangerous reactions** No dangerous reactions known

(Contd. on page 4)

USA

Material Safety Data Sheet

Printing date 04/09/2011

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Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 3)

· **Dangerous products of decomposition:** No dangerous decomposition products known

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values for hazardous components per OSHA criteria:**

56-40-6 glycine

Oral LD50 7930 mg/kg (rat)

Dermal LD50 5200 mg/kg (rat)

77-86-1 Tris(hydroxymethyl)aminomethane

Oral LD50 5900 mg/kg (rat)

151-21-3 sodium dodecyl sulphate

Oral LD50 1288 mg/kg (rat)

Dermal LD50 580 mg/kg (rab)

· **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.

· **Target organs:** Not applicable.

12 Ecological information

· **Additional 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.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

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

(Contd. on page 5)

USA

Material Safety Data Sheet

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Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 4)

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: -

• Transport/Additional information: Not dangerous according to the above specifications.

15 Regulatory information

- 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):

All ingredients are listed.

• Carcinogenic 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)

None of the ingredients is listed.

• TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

• MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

• NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

• OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

• Chemical safety assessment A Chemical Safety Assessment has not been carried out.

(Contd. on page 6)

USA

Material Safety Data Sheet

Printing date 04/09/2011

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Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 5)

- National regulations
- 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:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

• * Data compared to the previous version altered.

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