

Material Safety Data Sheet

Version GHS 5.1 Revision date: 01/25/2018

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: TBS Buffer, 20X pH7.4

Product Cat No: T8054 CAS No: Not applicable EC No : Not applicable

Manufacturer/Supplier: GenDEPOT LLC

PO Box 454 Barker, Tx 77413

Emergency Phone: 866.417.0078

Fax: 281-579-6876

2. HAZARD IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H412

GHS Label elements, including precautionary statements

Pictogram

Signal word none

Hazard statement(s) none

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s) none P273 Avoid release to the environment.

P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Inhalation: May be harmful if inhaled, Causes respiratory tract irritation Skin : May be harmful if absorbed through skin. Cause skin irritation

Eves : Causes eye irritation

Ingestion: May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENT

Synonyms:

No ingredients are hazardous according to OHSA criteria.

Component	Classification	Concentration
trometamol		
CAS No EC No	77-86-1 201-064-4	10-20%

4. FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air.

If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water.

Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least

15 minutes and consult a physician.

If swallowed: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

5. FIREFIGHTING MEASURES

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: No additional information available

Further information: Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precaution: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for contaminant and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precaution for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: Room temperature

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment: .

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and 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. Complete suit protecting against chemicals.

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

9. PHYSICIAL AND CHEMICAL PROPERTIES

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Appearance:

Form Liquid
Color Colorless

Safety data: pH

Melting point no data available
Freezing point no data available
Boiling point no data available

Flash point no data available no data available Ignition temperature no data available Auto-ignition temperature Lower explosion limit no data available Upper explosion limit no data available no data available Vapor pressure no data available Density Water solubility Easily soluble in water

Partition coefficient: no data available n-octanol/water

Relative vapor density no date available

Odor odorless

Odor threshold no data available Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available.

Condition to avoid

no data available.

Materials to avoid

no data available.

Hazardous decomposition products

Carbon oxides, Hydrogen chloride gas, nitrogen oxides (NOx), Sodium oxides Other decomposition products - no data available In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATON

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

Mutagenicity (Germ cell mutagenicity)

no data available

Carcinogenicity

no data available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity—single exposure (GHS)

no data available

Specific target organ toxicity—repeated exposure (GHS)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

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

Eyes Causes eye irritation

Synergistic effects

no data available

Additional information

RTECS: not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effect

no data available

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT(US)

Not dangerous goods

International Regulation

No additional information available

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IMDG

Not dangerous goods

IATA

Not dangerous goods

HIMS Rating:

 $\begin{array}{ll} \mbox{Health hazard:} & 2 \\ \mbox{Chronic Health Hazard:} & * \\ \mbox{Flammability:} & 0 \\ \mbox{Physical hazards:} & 0 \\ \end{array}$

NFPA Rating:

Health Hazard: 0 Fire: 0 Reactivity Hazard: 0

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects

15. REGULATORY INFORMATION

United States

HCS Classification : Non Hazard

TSCA 8(a) IUR exempt/Partial exemption: not determined United States Inventory (TSCA 8b): not determined SARA 302/304/311/312 extremely hazardous substances:

No products were found

SARA 302/304 emergency planning and notification:

No products were found

SARA 302/304/311/312 hazardous chemicals: No SARA hazard SARA 311/312 Hazard Identification: No SARA hazard

Clean Air Act Section 112(b) : not listed

Hazardous air pollutants (HAPs)

Clean Air Act Section 602 : not listed

Class I substances

Clean Air Act Section 602 : not listed

Class II substances

DEA List I Chemicals : not listed

(Precursor chemicals)

DEA List II Chemicals : not listed

(Essential chemicals)

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish or legally valid contractual relationship. GenDEPOT LLC, shall not be held liable for any damage resulting from handling of or from with above product. The burden of safe use of this material rests entirely with the user.

Since the conditions of handling, storage and disposal of this material are beyond our control, it is the responsibility of the user to determine whether the material is fit for a particular purpose and/or suitable for the user's method of use or application, and to determine safe conditions for use of the material, and to assume full responsibility for loss, injury and expense arising out of or in connection with the use of material. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE MATERIAL DESCRIBED HEREIN SHALL BE CREATED BY OR INFERRED FROM ANY STATEMENT OR OMISSION FROM THIS MSDS.

Various government agencies and local authorities may have general or specific regulations applicable to the material which may not be covered in this MSDS. It is sole responsibility of the user to examine and confirm for its full compliance with any such regulations.

When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS: GenDEPOT LLC Safety Department

States Regulation

Massachusetts: The following components are listed

Not listed

New York: The following components are listed

Not listed

New Jersey: The following components are listed

Tris (hydroxymethyl) aminomethane CAS No 77-86-1
Potassium chloride CAS No 7447-40-7
Water CAS No. 7732-18-5

Pennsylvania: The following components are listed

Tris (hydroxymethyl) aminomethane CAS No 77-86-1 Potassium chloride CAS No 7447-40-7

Water CAS-No. 7732-18-5

California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.