

TBS: 500 ml of 10X: sc-362304



The Power to Question

MATERIAL SAFETY DATA SHEET

SECTION 1 - Chemical Product and Company Identification

Product Name: TBS: 500 ml of 10X
Product Number: sc-362304
Synonyms: Synonym: Tris Buffered Saline, 10X
Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800
Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

Section 2 - Composition and Information on Ingredients

<i>CAS No.</i>	<i>Percent</i>	<i>EINECS</i>	<i>Classification</i>
Sodium Chloride 7647-14-5	-	231-598-3	-
Tris (hydroxymethyl) aminomethane 77-86-1	-	201-064-4	-
Tris - Hydrochloride 1185-53-1	-	214-684-5	-
Water 7732-18-5	-	231-791-2	-

Hazard Symbols: None listed.

Risk Phrases: None listed.

Section 3 - Hazards Identification

EMERGENCY OVERVIEW:

Form: Liquid.

Caution!: May cause eye and skin irritation. May cause respiratory and digestive tract irritation. This is expected to be a low hazard for usual industrial handling. Good laboratory procedures are recommended when handling this compound.

Target Organs: No data found.

Potential Health Effects:

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause respiratory tract irritation. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and

alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water. Get medical aid if irritation or symptoms occur.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits:

Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated)

Health: 1

Flammability: 0

Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. No special precautions indicated.

Section 8 - Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

<i>Chemical Name</i>	<i>ACGIH</i>	<i>NIOSH</i>	<i>OSHA - Final PELs</i>
Sodium Chloride	none listed	none listed	none listed
Tris (hydroxymethyl) aminomethane	none listed	none listed	none listed
Tris- Hydrochloride	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs:

Sodium Chloride: No OSHA Vacated PELs are listed for this chemical.

Tris(hydroxymethyl) aminomethane: No OSHA Vacated PELs are listed for this chemical.

Tris- Hydrochloride: No OSHA Vacated PELs are listed for this chemical. **Water:** No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Form	Liquid	Odor	Not available
pH	Not available	Vapor Pressure	Not available
Vapor Density	Not available	Evaporation Rate	Not available
Viscosity	Not available	Boiling Point	> 100 °C
Freezing/Melting Point	Not available	Decomposition Temperature	Not available
Solubility	Soluble	Specific Gravity/Density	>1.00
Molecular Formula	Solution	Molecular Weight	Not available

Section 10 - Stability and Reactivity Data

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Water reactive substances (e.g. acetic anhydride, alkyl aluminum chloride, calcium carbide, ethyl dichlorosilane).

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS#: 7647-14-5: VZ4725000

77-86-1: TY2900000

1185-53-1: unlisted

7732-18-5: ZC0110000

LD50/LC50:

CAS# : 7647-14-5

Draize test, rabbit, eye: 100 mg

Mild; Draize test, rabbit, eye: 100 mg/24H

Moderate; Draize test, rabbit, eye: 10 mg

Moderate; Draize test, rabbit, skin: 50 mg/24H

Mild; Draize test, rabbit, skin: 500 mg/24H

Mild; Inhalation, rat: LC50 = >42 gm/m³/1H; Oral, mouse: LD50 = 4 gm/kg; Oral, rat: LD50 = 3000 mg/kg;

Skin, rabbit: LD50 = >10 gm/kg; CAS# 77-86-1: Oral, rat: LD50 = 5900 mg/kg;

CAS# 1185-53-1:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg

Carcinogenicity:

CAS# 7647-14-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

CAS# 77-86-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

CAS# 1185-53-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

no data available

Section 13 - Disposal Considerations

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

no data available

Section 15 - Other Regulatory Information

US FEDERAL:

TSCA:

CAS# 7647-14-5 is listed on the TSCA inventory.

CAS# 77-86-1 is listed on the TSCA inventory.

CAS# 1185-53-1 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARA:

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

SARA Codes: CAS # 7647-14-5: acute. CAS # 77-86-1: acute. CAS # 1185-53-1: acute.

Section 313: No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE:

CAS# 7647-14-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 77-86-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 1185-53-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations:

European Labeling in Accordance with EC Directives: Hazard Symbols: Not available.

Risk Phrases: -

Safety Phrases: S 37 Wear suitable gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection):

CAS# 7647-14-5: 0

CAS# 77-86-1: 1

CAS# 1185-53-1: No information available.

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL:

CAS# 7647-14-5 is listed on Canada's DSL List.

CAS# 77-86-1 is listed on Canada's DSL List.

CAS# 1185-53-1 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS: WHMIS: Not available.

Canadian Ingredient Disclosure List:

Exposure Limits:

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

12/5/2011