

Revision Date: 1/10/2009**Revision Number:** 4**Material/Trade Name:** PrepStain™ TRIS BUFFER CONCENTRATE SOLUTION

1 - Substance Identification

Material/Trade Name : TRIS Buffer Concentrate Solution
Material type : Chemical
Company : Source BioScience
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2 - Composition

Substance	% Wt.	CAS No.	EC No.
Tris (hydroxymethyl) aminomethane Xi; R36/38	<25%	77-86-1	201-064-4

3 - Hazard Identification

Irritating to eyes and skin. The toxicological properties of this material have not been fully investigated. Hygroscopic.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause liver and kidney damage. The toxicological properties of this substance have not been fully investigated. May cause metabolic changes including hypoglycaemia, and hyperkalemia. May depress respiratory centre.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. The toxicological properties of this substance have not been fully investigated.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage.

4 - First-aid Measures

Inhalation: Remove to fresh air and rest
If recovery is not rapid call for prompt medical attention
Show this safety data sheet to medical personnel

Eyes: Irrigate with water for at least 15 minutes
Take care not to wash chemical from one eye to another
If irritation persists, obtain medical attention

Skin: Remove contaminated clothing
Wash with soap/cleanser and rinse with plenty of water
If irritation persists, obtain medical attention

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4 - First-aid Measures (Continued)

Ingestion:	Do not induce vomiting Give plenty of water to drink Beware of aspiration if vomiting occurs Seek medical attention immediately
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5 - Fire-fighting Measures

Suitable Extinguishers:	Alcohol resistant foam Dry powder Carbon dioxide Water spray/fog Direct water jets
Hazardous Decomposition:	Toxic fumes are produced in fire
Special Procedures:	Do not breathe decomposition products and fumes Use approved self-contained breathing apparatus Wear fire retardant clothing Use water spray to cool containers Use water fog to disperse vapours and leaks that have not ignited Prevent runoff from fire control from entering waterways Large fires should only be dealt with by trained personnel

6 - Accidental Release Measures

Exposure Controls:	Ventilate area Isolate the spillage Use barriers to prevent accidental entry into contaminated areas Do not allow spill to enter drains and watercourses
Personal Protection:	Wear suitable respiratory protection e.g. EN405 FFAX2 or EN140 AX2 Wear PVC or butyl gloves Use eye protection such as goggles to BS EN 166 Chemical Grade
Disposal Considerations:	Absorb in inert material such as sand or absorbent granules Scoop up and place in plastic container to await transfer Spill is classed as special waste

7 - Handling and Storage

Handling:	Avoid skin contact Avoid eye contact Avoid inhalation of vapour Ensure adequate ventilation Use local extraction equipment where possible Wear suitable protective clothing (see section 8)
Storage:	Store in tightly closed labelled containers Store in a cool, dry, well ventilated area Keep away from acids

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8 - Exposure Controls

Wear PVC or butyl gloves
Wear suitable overalls or apron and change if contaminated
Wear suitable eye protection such as BS EN 166
Use in well ventilated areas.
Use mechanical ventilation if possible
If excessive inhalation in a poorly ventilated area is likely then use a respirator
After contact with skin wash off immediately

9 - Physical & Chemical Properties

Appearance : Clear colourless liquid
Odour : Characteristic amine like
pH : 7.8 – 8.2 (aqueous solution)
Boiling point/range : 100°C
Flash point : n/a
Flammability : NON-FLAMMABLE
Autoflammability : n/a
Explosive properties : n/a
Oxidising properties : n/a
Vapour pressure : n/a
Relative density : n/a
Solubility : n/a
Vapour Density : n/a
Viscosity : n/a
Evaporation rate (Bu Ac = 1) : n/a

(n/a = not available)

10 - Stability and Reactivity

Stable at normal temperatures
Materials to avoid: oxidising agents, acids
Conditions to avoid: none known
Hazardous decomposition products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous polymerisation: Will not occur

11 - Toxicological Information

RTECS#: TY2900000

LD50/LC50: Oral, rat: LD50 = 5900 mg/kg.

Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

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12 - Ecological Information

No information available

13 -Disposal Considerations

Do not discharge into drains or watercourses
Dispose through properly licensed contractors
Dispose of in accordance with the Special Waste Regulations 1996

14 -Transport Information

UN/SI Number: n/a. Not regulated.

15 - Regulatory Information

European/International Regulations

European Labelling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 7 Keep container tightly closed.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS# 77-86-1: 1

United Kingdom Occupational Exposure Limits

Canada

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

CAS# 77-86-1 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

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

16 - Other Information

The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information is believed to be reliable and updated at Revision Date, and represents the best information currently available and known by Source BioScience. However, Source BioScience makes no guarantee or warranty, express or implied, with respect to such information and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purposes. It is the responsibility of the user to undertake a suitable risk assessment/COSHH assessment prior to using this material.