

# Material Safety Data Sheet

## hazard information

Hazard information is provided for compliance with both the UK Chemicals (Hazard Information and Packaging) (CHIP) Regulations and the US Hazard Communication Standard (HCS).

### Identification of the Substance/Preparation and Company:

Product name	Product code	EEC number
5X TBE Buffer	GR146-1	None

#### Supplier

Hoefler, Inc., 953 Indiana Street, San Francisco, CA 94107  
Phone: 800-227-4750

#### Emergency Contact

Chemtrec: 800-424-9300  
Outside USA and Canada: 703-527-3887

### Composition/Hazardous Components:

Hazard	CAS No.	%WT	TLV	CHIP R & S Phrases
Tris	77-86-1	~5.4%	---	
Boric Acid	10043-35-3	~2.8%	---	

For the mixture/preparation:

*R:36/38* Irritating to eyes and skin.  
*S:26* In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### Hazards Identification

CHIP: Irritant  
HCS: Irritant



### First-aid Measures

**EYES:** Flush with water for 15 minutes. Seek medical advice if irritation persists.

**SKIN:** Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.

**INHALATION:** Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.

**INGESTION:** Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

### Fire-fighting Information

**FLASH POINT:** No data available

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. *For small fires only:* use carbon dioxide, dry powder or foam. No unusual fire or explosion hazards known.

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.

## Accidental Release Measures

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.

## Handling and Storage

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Avoid contact of material with skin or eyes. Store ambient.

## Personal Protection

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash.

## Physical and Chemical Properties

Appearance: Liquid Buffer

Boiling Point: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Solubility (Water): Soluble

Specific Gravity: No data available

Percent Volatile: No data available

Evaporation Rate: No data available

Chemical Formula: No data available

## Stability and Reactivity

Product is stable. Hazardous polymerization will not occur.



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[www.hoeferinc.com](http://www.hoeferinc.com)

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## Toxicological Information

The toxicological properties of the gel mix are not fully defined. Handle according to the precautions for the most hazardous component. May cause irritation to skin, eyes and mucous membranes. May be harmful if ingested or inhaled. May be harmful to the kidneys.

### For Tris:

SKIN AND EYES: Contact with skin and eyes may cause irritation, redness, swelling and pain especially of the mucous membranes.

INHALATION: Excessive inhalation of dust may cause irritation, cough and shortness of breath.

INGESTION: Ingestion or excessive exposure may lead to nausea, vomiting and diarrhea. Large amounts may cause weakness, collapse or coma.

Toxicity data listed in RTECS under TY2900000.

Oral Rat LD50 = 5900 mg/kg (Milan, Italy - 1971) Details of toxic effects not reported other than lethal dose value.

### For Boric Acid:

EYES: Contact may cause irritation. Prolonged exposure may cause conjunctivitis and edema.

SKIN: Contact may cause mild irritation. May be absorbed through the skin to cause systemic effects including nausea, vomiting, diarrhea, abdominal cramps, erythematous lesions on skin and mucous membranes, circulatory collapse, tachycardia, cyanosis, delirium, convulsions and coma.

INHALATION: Inhalation causes irritation of mucous membranes and possible systemic effects listed under skin.

INGESTION: May cause effects listed under skin as well as anorexia, reddening of the tongue, loss of hair, palpebral edema, gastrointestinal disturbances, kidney and liver damage.

Irritation, reproductive, mutation and toxicity data listed in RTECS under ED4550000.

Oral Rat LD50 = 2660 mg/kg (1945) Toxic effects may include Nausea, vomiting, diarrhea, hypermotility, convulsions, dermatitis, anorexia, tremors, ataxia, cyanosis and possibly death.

Definition(s): RTECS = Registry of Toxic Effects of Chemical Substances.

## Ecological Information

No information available.

## Disposal Considerations

Dispose of material in accordance with applicable local, state, and federal regulations.

## Transportation Information

US DOT/IATA: No applicable information.

## Regulatory Information

RCRA: No applicable information.

SARA 302: No applicable information.

SARA 313: No applicable information.

EPA TSCA Section 8(b):

For Tris and Boric Acid: Chemical Inventory.

Exposure Limits: Not established.

California Proposition 65: No applicable information.

