

## SECTION 1) IDENTIFICATION

**Product ID:** 400-4-50, 400K-100-5X20, 400K-100X OSHA  
**Product Name:** Trizma Buffer Solution  
**Revision Date:** Jan 22, 2019  
**Version:** 1.0  
**Manufacturer's Name:** Trinity Biotech Plc  
**Address:** IDA Business Park  
Southern Cross Road Bray, Co. Wicklow,  
IRL  
**Emergency Phone:** Contact your local Emergency Health  
Care Provider. USA-Technical Support  
Group: 1-800-325-3424  
**Information Phone Number:** +353 1 276 9800  
**Fax:** +353 1 276 9888  
**Product/Recommended Uses:** Medical Diagnostics

**Date Printed:** Apr 25, 2019  
**Supersedes Date:** N.A.  
**Distributor's Name:** Trinity Biotech USA  
**Address:** 2823 Girts Road Jamestown, NY, USA, 14701  
**Distributor's Phone:** +1 800-325-3424  
**Distributor's Emergency:** Contact your local Emergency Health Care  
Provider. Ireland-Technical Support Group 00353-1-  
276-9800

## SECTION 2) HAZARDS IDENTIFICATION

### Classification

These classifications were evaluated according to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Carcinogenicity - Category 2

Reproductive Toxicity - Category 2

### Pictograms



### Signal Word

Warning

### Hazardous Statements - Health

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

### Precautionary Statements - General

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

### Precautionary Statements - Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

### Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.

### Precautionary Statements - Storage

Store locked up.

### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation.

### Hazards Not Otherwise Classified (HNOC)

No Data Available

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## SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

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CAS	Chemical Name	% By Weight
0007732-18-5	WATER	93.27%
0000077-86-1	2-AMINO-2-(HYDROXYMETHYL)-1,3-PROPANEDIOL	5.97%
0000067-66-3	CHLOROFORM	< 1%
0007647-01-0	HYDROCHLORIC ACID	< 1%

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). If unwell, or exposed and concerned: Get medical advice/attention.

### Eye Contact

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a flushing duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

### Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or rash occurs: Get medical advice/attention. Store clothing under water and wash clothing before re-use or discard. If exposed or concerned: Get medical advice/attention.

### Ingestion

Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, lie on your side, in the recovery position. If exposed or concerned: Get medical advice/attention.

### Most Important Symptoms and Effects, Both Acute and Delayed

No Data Available

### Indication of Any Immediate Medical Attention and Special Treatment Needed

No Data Available

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## SECTION 5) FIRE-FIGHTING MEASURES

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### Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.

### Unsuitable Extinguishing Media

No Data Available

### Specific Hazards in Case of Fire

Burning can produce irritating, toxic and obnoxious fumes.

### Fire-Fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### **Special Protective Actions**

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## **SECTION 6) ACCIDENTAL RELEASE MEASURES**

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### **Emergency Procedure**

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

### **Recommended Equipment**

Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

### **Personal Precautions**

DO NOT get on skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

### **Environmental Precautions**

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Stop spill/release if it can be done safely.

### **Methods and Materials for Containment and Cleaning Up**

Absorb liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Contaminated absorbent material may pose the same hazard as the spilled product.

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## **SECTION 7) HANDLING AND STORAGE**

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### **General**

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored. Use Good Laboratory Procedures (GLP) during handling.

### **Ventilation Requirements**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

### **Storage Room Requirements**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage.

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## **SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **Eye Protection**

Wear eye protection with side shields or goggles. If additional protection is needed for entire face, use in combination with a face shield.

### **Skin Protection**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

### **Respiratory Protection**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program should be followed. Check with respiratory protective equipment suppliers.

### Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA Carcinogen	OSHA Carcinogen	OSHA Skin designation	OSHA Skin designation
CHLOROFORM			50 ceiling	50 ceiling				
HYDROCHLORIC ACID			5 ceiling	7 ceiling				

Chemical Name	OSHA Tables (Z1, Z2, Z3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH Carcinogen	NIOSH Carcinogen	ACGIH STEL (ppm)
CHLOROFORM	1	2a	9.78a			1	1	
HYDROCHLORIC ACID	1							C 2

Chemical Name	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH TWA (mg/m3)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Carcinogen	ACGIH Notations
CHLOROFORM	10		49	Liver dam; embryo/fetal dam; CNS impair	A3	A3	A3
HYDROCHLORIC ACID				URT irr	A4	A4	A4

(C) - Ceiling limit, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, CNS - Central nervous system, dam - Damage, impair - Impairment, irr - Irritation, URT - Upper respiratory tract

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density 8.49097 lb/gal  
 Specific Gravity 1.01744

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Appearance N/A  
 Odor Description N/A  
 Odor Threshold N/A  
 pH 8.8  
 Water Solubility N/A  
 Flammability N/A  
 Flash Point N/A  
 Viscosity N/A  
 Lower Explosion Level N/A  
 Upper Explosion Level N/A  
 Vapor Pressure N/A  
 Vapor Density N/A  
 Freezing Point N/A  
 Melting Point N/A  
 Low Boiling Point N/A

High Boiling Point	N/A
Auto Ignition Temp	N/A
Decomposition Pt	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

No Data Available

### Stability

Stable under normal storage and handling conditions.

### Conditions to Avoid

Avoid heat, sparks, flame, high temperature, freezing and contact with incompatible materials.

### Hazardous Reactions/Polymerization

No Data Available

### Incompatible Materials

Strong bases, acids, oxidizing and reducing agents.

### Hazardous Decomposition Products

No Data Available

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Likely Routes of Exposure

Inhalation, ingestion, skin absorption.

### Aspiration Hazard

No Data Available

### Carcinogenicity

Suspected of causing cancer.

### Germ Cell Mutagenicity

No Data Available

### Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

### Respiratory/Skin Sensitization

No Data Available

### Serious Eye Damage/Irritation

No Data Available

### Skin Corrosion/Irritation

No Data Available

### Specific Target Organ Toxicity - Repeated Exposure

No Data Available

### Specific Target Organ Toxicity - Single Exposure

No Data Available

## Acute Toxicity

No Data Available

0007647-01-0 HYDROCHLORIC ACID

LC50 (rat): 8300 mg/m3 (5666 ppm) (30-minute exposure) (2)  
LC50 (rat): 45600 mg/m3 (31008 ppm) (5-minute exposure) (2)  
LC50 (mouse): 3100 mg/m3 (2142 ppm) (30-minute exposure) (2)  
LC50 (mouse): 16500 mg/m3 (11238 ppm) (5-minute exposure) (2)  
LD50 (oral, rabbit): 900 mg/kg (5)

0000067-66-3 CHLOROFORM

LC50 (rat): 2265 ppm (4-hour exposure); cited as 1849 (6-hour exposure) (1)  
LC50 (mouse): 1540 ppm (4-hour exposure); cited as 1260 ppm (6-hour exposure) (1)  
LD50 (oral, rat): 908 mg/kg (12)  
LD50 (oral, young rat): 450 mg/kg (1)  
LD50 (oral, male mouse): 36 mg/kg (13)  
LD50 (oral, female mouse): 353 mg/kg (13)

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## SECTION 12) ECOLOGICAL INFORMATION

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### Toxicity

No Data Available

### Mobility in Soil

No Data Available

### Bio-accumulative Potential

No Data Available

### Persistence and Degradability

No Data Available

### Other Adverse Effects

No Data Available

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## SECTION 13) DISPOSAL CONSIDERATIONS

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### Waste Disposal

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

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## SECTION 14) TRANSPORT INFORMATION

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### US DOT/IMDG/IATA Information

UN number: Not Regulated  
UN proper shipping name: N/A  
Transport hazard class(es): Not Applicable  
Packing group: Not Applicable  
Marine Pollutant: No data available

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**SECTION 15) REGULATORY INFORMATION**

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CAS	Chemical Name	% By Weight	Regulation List
0007732-18-5	WATER	93.27%	TSCA
0000077-86-1	2-AMINO-2-(HYDROXYMETHYL)-1,3-PROPANEDIOL	5.97%	SARA312,TSCA
0000067-66-3	CHLOROFORM	< 1%	SARA313, SARA312,IARCCarcinogen,NTP_Carcinogen - National Toxicology Program Carcinogens,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer,CA_Prop65_Type_Toxicity_Develop - CA_Proposition65_Type_Toxicity_Developmental
0007647-01-0	HYDROCHLORIC ACID	< 1%	SARA312,IARCCarcinogen,TSCA

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**SECTION 16) OTHER INFORMATION**

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**Glossary**

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDGCanadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

**Version 1.0:**

Revision Date: Jan 22, 2019

Version 1.0

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