

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers

Product name: 10x Reaction Buffer  
Trade Name: TRIS, 1.0M Buffer Solution, pH 8.0  
Product number: 04-XTB-030, -050  
Brand: Integrated Micro-Chromatography Systems, Inc.  
CAS No. : 1185-53-1

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals.  
Uses advised against: Food, drug, pesticide or biocidal product use.

### 1.3 Details of the supplier of the safety data sheet

Company: Integrated Micro-Chromatography Systems, Inc.  
110 Centrum Drive  
Irmo, SC 29063  
Telephone: +1 (888) 560-2073  
Website: [www.imcstips.com](http://www.imcstips.com)

### 1.4 Emergency telephone number

Emergency Phone: US, Canada, Puerto Rico, and the U.S. Virgin Islands: +1-800-255-3924  
International (collect calls accepted): +1-813-248-0585  
Australia: 1-300-954-583  
Brazil: 0-800-591-6042  
China: 400-120-0751  
India: 000-800-100-4086  
Mexico: 01-800-099-0731  
+1 (888) 560-2073 – IMCS Technical Support

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## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### 2.2 Label Elements

None required.

### 2.3 Hazards not otherwise classified (HNOC)

None identified.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Water	7732-18-5	84.33
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	15.67

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

After eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

After skin contact: Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

After inhalation: Remove to fresh air. Get medical attention immediately if symptoms occur.

After ingestion: Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### 4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

#### 4.3 Notes to Physician

Treat symptomatically.

### 5. FIREFIGHTING MEASURES

#### 5.1 Suitable Extinguishing media

Carbon dioxide (CO<sub>2</sub>). Powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

#### 5.2 Unsuitable Extinguishing Media

No information available

**Flash Point** No information available  
**Method -** No information available

#### 5.3 Autoignition Temperature

No information available.

#### 5.4 Explosion Limits

Upper: No data available  
 Lower: No data available  
 Sensitivity to Mechanical Impact: No information available  
 Sensitivity to Static Discharge: No information available

**5.5 Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**5.6 Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). Hydrogen chloride.

**5.7 Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA			
Health 0	Flammability 0	Instability 0	Physical hazards -

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions**

Ensure adequate ventilation. Use personal protective equipment as required..

**6.2 Environmental precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

**6.3 Methods and materials for containment and clean up**

Sweep up and shovel into suitable containers for disposal.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

**7.2 Conditions for safe storage**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**8.2 Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

### 8.3 Personal Protective Equipment

<b>Eye/face Protection:</b>	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.
<b>Skin and body protection:</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection:</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
<b>Hygiene Measures:</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Physical State:</b>	Liquid.
<b>Appearance:</b>	Colorless.
<b>Odor:</b>	Odorless.
<b>Odor Threshold:</b>	No information available.
<b>pH:</b>	No information available.
<b>Melting Point/Range:</b>	No data available.
<b>Boiling Point/Range:</b>	No information available.
<b>Flash Point:</b>	No information available.
<b>Evaporation Rate:</b>	No information available.
<b>Flammability (solid,gas):</b>	Not applicable.
<b>Flammability or explosive limits</b>	
Upper:	No data available.
Lower:	No data available.
<b>Vapor Pressure:</b>	<=1100 hPa @ 50 °C.
<b>Vapor Density:</b>	No information available.
<b>Specific Gravity:</b>	No information available.
<b>Solubility:</b>	No information available.
<b>Partition coefficient; n-octanol/water:</b>	No data available.
<b>Autoignition Temperature:</b>	No information available.
<b>Decomposition Temperature:</b>	No information available.
<b>Viscosity:</b>	No information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Reactive Hazard:	None known, based on information available.
Stability:	Stable under normal conditions.
Conditions to Avoid:	Incompatible products.
Incompatible Materials:	Oxidizing agent.
Hazardous Decomposition Products:	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Hydrogen chloride.
Hazardous Polymerization:	Hazardous polymerization does not occur.
Hazardous Reactions:	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity

#### Product Information

Oral LD50:	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50:	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50:	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	OECD 425 (Rat) LD50 > 5000 mg/kg bw	OECD 402 (Rat) LD50 > 5000 mg/kg bw	Not listed

**Toxicologically Synergistic:** No information available.

### 11.2 Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure.

<b>Irritation:</b>	No information available.
<b>Sensitization:</b>	No information available.

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	Not listed	Not listed	Not listed	Not listed	Not listed

<b>Mutagenic Effects:</b>	No information available.
<b>Reproductive Effects:</b>	No information available.
<b>Developmental Effects:</b>	No information available.
<b>Teratogenicity:</b>	No information available.
<b>STOT - single exposure:</b>	None known.
<b>STOT - repeated exposure:</b>	None known.
<b>Aspiration hazard:</b>	No information available.
<b>Symptoms / effects, both acute and delayed:</b>	No information available.
<b>Endocrine Disruptor Information:</b>	No information available.
<b>Other Adverse Effects:</b>	The toxicological properties have not been fully investigated.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,3-Propanediol, 2-amino-2 (hydroxymethyl)-, hydrochloride	Not listed	Not listed	OECD 209 EC50 > 1000 mg/L (3h)	Daphnia Magna EC50 > 100 mg/L (48h)

**Persistence and Degradability:** Miscible with water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation:** No information available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

Component	log Pow
1,3-Propanediol, 2-amino-2 (hydroxymethyl)-, hydrochloride	-3.6

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. TRANSPORT INFORMATION

DOT:	Not regulated.
TDG:	Not regulated.
IATA:	Not regulated.
IMDG/IMO:	Not regulated.

## 15. REGULATORY INFORMATION

### 15.1. United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIVE	-
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	X	ACTIVE	-

#### Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export:

Not applicable

### 15.2. International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Water	7732-18-5	X	-	231-791-2	X	X	X	X	KE-35400
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	X	-	214-684-5	X	X	X	X	KE-34819

### 15.3. U.S. Federal Regulations

SSARA 313:

Present (DSL)

SARA 311/312 Hazard Categories:

See section 2 for more information

CWA (Clean Water Act):

Not applicable

Clean Air Act:

Not applicable

OSHA - Occupational Safety and Health Administration:

Not applicable

CERCLA:

Not applicable

California Proposition 65:

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations:**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
 DOT Marine Pollutant: N  
 DOT Severe Marine Pollutant: N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**15.10. Other International Regulations**

Mexico - Grade: No information available

**16. OTHER INFORMATION**

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. IMCS, Inc and its affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

**Issuing SDS:** IMCS Technical Support  
**Contact:** Integrated Micro Chromatography Systems, Inc.  
 IMCS Technical Support  
 110 Centrum Drive  
 Irmo, SC 29063  
 +1 (888) 560-2073

**Abbreviations and Acronyms**

IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)