

Buffer

Section 1. Identification

Product Identifier

Catalog Number: ALL PRODUCTS

Recommended use of the chemical and restrictions on use
For research use only. Not intended for human or animal diagnostic or therapeutic uses

Manufacture/Supplier Details: Swift Biosciences, Inc.
58 Parkland Plaza, Suite 100
Ann Arbor, MI 48103

Emergency Telephone Numbers

CHEMTREC Emergency Phone Number: 1-800-424-9300
Chemtrec should only be called in a chemical emergency (spill, leak, fire, exposure, or accident)

Section 2. Hazard Identification

Classification of the substance/mixture: Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

The substance is classified and labeled according to the Globally Harmonized System (GHS). Not a hazardous substance or mixture.

Hazard statements: None

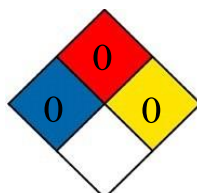
Signal word: None

Precautionary Statements: None

HMIS rating (Scale 0-4):

HEALTH	0
FIRE	0
REACTIVITY	0

NFPA Rating:



Hazards not otherwise classified: None

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Section 3. Composition/Information on Ingredients

Chemical Name	Identifiers	Hazardous	Approximate Percentage %
Tromethamine	CAS: 77-86-1	nonhazardous	-
Sodium Chloride	CAS: 7440-23-5	nonhazardous	-
Magnesium Chloride,6-hydrate	CAS: 7791-18-6	nonhazardous	-
Water	CAS: N/A	nonhazardous	-

Chemical Characterization: Mixture

Any concentration shown as a range or N/A is to protect confidentiality or is due to batch variation.

Section 4. First-Aid Measures

Description of necessary measures

Inhalation: Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin: Wash exposed area with soap and water. If irritation arises, call a physician.

Eye: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Ingestion: Give several glasses of milk or water. Vomiting may occur spontaneously, but it is no necessary to induce. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

No further relevant information available

Indication of any immediate medical attention and special treatment needed

All treatment should be based on observed sign and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5. Fire Fighting Measures

Extinguishing media:

Suitable extinguishing media: Carbon dioxide, dry chemical, or appropriate foam.

Unsuitable Extinguishing: None known

Special hazards arising from the substance or mixture

Unusual fire and explosion hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Hazardous Combustions products: None known

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Special protective equipment and precautions for the fire-fighters

Wear self-contained breathing apparatus and protective suit.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch or walk through spilled material. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental precautions

Avoid run off to waterways and sewers.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and put in chemical waste container.

Section 7. Handling And Storage

Precautions for safe handling:

Avoid inhalation and prolonged exposure. Use personal protective equipment such as gloves, goggles, and lab coat. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including and incompatibilities

Storage:

Keep tightly closed in properly labeled containers; store in a dry place, at directed temperature indicated on label.

Incompatible materials or Ignition sources:

Hygroscopic.

Section 8. Exposure Controls/Personal Protection

Control parameters

Occupational exposure Limit values:

We are not aware of any national exposure limit.

Appropriate engineering controls:

Safety shower and eye wash. Ensure adequate ventilation.

Personal protective equipment

Eye protection:

Safety glasses with side shields.

Hand Protection:

Impervious gloves.

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Respiratory Protection:	None required under normal working conditions in use.
Skin and body protection:	Lightweight protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Environment exposure controls	Prevent product from entering drains.

Section 9. Physical And Chemical Properties

Appearance:	Clear
Odor:	Faint
Odor Threshold:	No data available
pH:	5.5-8.0
Melting point/freezing point:	No data available
Initial boiling point & boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Partition coefficient:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density (water):	No data available
Solubility:	Soluble in water
Upper/lower flammability or explosive limits:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Other information:	Liquid

Section 10. Stability And Reactivity

Reactivity:	Avoid strong oxidizing agents and strong bases.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Under normal conditions of storage and used, hazardous reactions should not occur.
Conditions to avoid	Protect from heat and moisture.
Incompatible materials	No specific data

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Hazardous decomposition products: Hydrogen chloride gas, magnesium oxide, carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas, carbon oxides, and sodium oxides.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity: Not hazardous

Product/Ingredient Name	CAS	Result	Species	Dose	Exposure
Buffer	Not available	Not available	Not available	Not available	Not available

Irritation/Corrosion

Product/Ingredient Name	Result	Species	Score	Exposure/Observation
Buffer	Not available	Not available	Not available	Not available

Sensitization: Not available

Mutagenicity: Not available

Carcinogenicity

Product/Ingredient Name	OSHA	IARC	NTP
Buffer	None of the ingredients listed	None of the ingredients listed	None of the ingredients listed

Reproductive toxicity: Not available

Teratogenicity: Not available

Specific target organ toxicity- single exposure: Toxicity is low

Specific target organ toxicity- repeated exposure: May cause injury. Signs and symptoms may be central nervous systems effects and increased blood sugar levels. Persons with preexisting conditions may be more susceptible.

Aspiration Hazard: Not available

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Information on the likely routes of exposure

Routes of entry anticipated: Oral May be harmful if swallowed

Notes: Water hazard class 1 (self-assessment): slightly hazardous for water

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: May cause eye irritation with susceptible persons.

Inhalation: May be harmful by inhalation.

Skin contact: May cause skin irritation in susceptible persons.

Ingestion: May be harmful if swallowed

Aspiration Hazard: Not available

Delayed and immediate effects and also chronic effects from short and long term exposure

No known significant effects or critical hazards.

Numerical measures of toxicity

Not available

Section 12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure
Buffer	Not available	Not available	Not available

Persistence and degradability: Not available

Bioaccumulative potential Not available

Mobility in soil Not available

Other adverse effects Not available

Aspiration Hazard No known significant effects or critical hazards.

Section 13. Disposal Considerations

Waste treatment methods

Product waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

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Packaging waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

Section 14. Transport Information

	UN Number	UN proper shipping name	Transport hazard class(es)	Packaging group	Environmental Hazards
DOT	Not regulated	No information available	No information available	No information available	None
IMDG	Not regulated	No information available	No information available	No information available	None
IATA	Not regulated	No information available	No information available	No information available	None

Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

This product is provided only in non-bulk containers

Special Precautions for user

None specified

IATA:

Proper shipping name: Classified as non-hazardous in the meaning of transport regulations.

DOT: This substance is considered to be non-hazardous for transport. No shipping name required.

Hazard Class None

Subsidiary class None

Packing group None

UN-No None

Marine Pollutant No

Section 15. Regulatory Information

Safety health and environmental regulations/ legislation specific for the substance or mixture

Sara:

Not applicable

Section 355 (Extremely hazardous substances):

This product is not regulated by SARA.

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Section 313 (Specific toxic chemical listings):	This product is not regulated by SARA.
SARA 311/312 Hazards:	This product is not regulated by SARA.
TSCA (Toxic substances control act):	
Proposition 65, PICCS, ENCS, DSL, ALCS:	Tromethamine and magnesium chloride, 6-hydrate
Chemicals known to cause cancer:	Not available.
Chemicals known to cause reproductive toxicity or females:	Not available.
Chemicals known to cause reproductive toxicity for males:	Not available.
Chemicals known to cause developmental toxicity:	Not available.
Carcinogenic categories:	
EPA (Environmental protection agency):	Carcinogenicity categories: 7646-85-7 zinc chloride
TLV (Threshold limit value established by ACGIH):	Not available.
NIOSH-CA (National institute for occupational safety and health)	Not available.
OSHA-CA (occupational safety & health administration):	Not available.
GHS label elements:	The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Signal Word:	Not available.
Hazard-determining components of labeling:	Not available.
Hazard statements:	Not available.
Precautionary statements:	Not available.
National regulations:	Substance is not listed
State right to know:	This product does not contain chemicals listed under California Proposition 65. Tromethamine, Sodium Chloride, and Magnesium Chloride, 6-hydrate are listed under MA-RTK.
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61):	This product does not contain HAPs.
WHMIS hazard class:	This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Section 16. Other Information

Disclaimer/Statement of Liability: The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of

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this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Swift Biosciences, Inc Shall not be held liable for any damage resulting from handling or from contact with the above product. Swift Biosciences, Inc

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