



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Extraction Buffer

Chemical characterization Dilute Salt Solution

Supplier Edge BioSystems
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Product use Protein Extraction

Product Identification Number N/A

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	Name	CAS Number	Weight %
	None		

Other components	Name	CAS Number	
	Water	7732-18-5	84 – 88
	Magnesium Chloride	7791-18-6	12 – 16

See Section 15 of this MSDS for OSHA Regulatory Status

3. HAZARDS IDENTIFICATION

Emergency overview Clear, colorless liquid with no odor. Contact with liquid may irritate the eye or skin. May be harmful if swallowed.

Will not burn. If involved in a fire, use extinguishing media suitable for the material that is burning.

Primary route(s) of entry Eye and skin contact.

Symptoms of exposure

Inhalation None expected.

Eye contact May cause irritation, experienced as pain, redness, or tearing.

Skin contact May cause irritation, experienced as redness or swelling.

Ingestion May cause irritation to gastro-intestinal tract, nausea and/or vomiting, drowsiness, or other adverse health effects.

Medical conditions aggravated by exposure None known.

Listed as carcinogen or potential carcinogen Not listed by OSHA, the International Agency for Research on Cancer (IARC), or the National Toxicology Program (NTP)

4. FIRST AID

Eye contact Hold eye open and flush slowly and gently with plenty of water for several minutes. Remove any contact lenses, and continue flushing for several more minutes. Seek medical attention if irritation develops and persists. Clean contacts before reuse.

Skin contact Wash affected areas with plenty of water, and soap if available, for several minutes. Seek medical attention if irritation develops and persists.

Ingestion Give 3-4 glasses of water, but DO NOT induce vomiting. If vomiting occurs, give fluids again. Get medical attention to determine whether vomiting or evacuation of stomach is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation None required under normal use conditions. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

Note to physician The toxicological properties of this product have not been determined.

5. FIRE FIGHTING MEASURES

Flash Point and Method N/A

General hazard Does not present any special hazards.

Extinguishing media Use media suitable for the material that is burning.

Extinguishing media to avoid None

Special firefighting instructions Move containers from area if it can be done without risk.

Firefighting equipment As in any fire, wear NIOSH approved, positive-pressure, self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Wear appropriate protective equipment (See Section 8). Avoid contact with eyes, skin or clothing.

Environmental precautions Keep large spills out of sewers or waterways.

Clean-up methods Absorb with Fuller's earth, vermiculite or other similar material. Sweep up and place in a compatible container for disposal.

7. HANDLING AND STORAGE

Handling	Wear appropriate protective equipment (See Section 8). Avoid contact with eyes, skin or clothing. Do not pipette by mouth. Wash thoroughly after handling.
Storage	Store in a cool, dry place. Keep from freezing. Keep container tightly sealed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	General dilution ventilation system should be adequate.
Personal Protection	
Respirator	In operations where mists are generated, use a NIOSH approved respirator that has been selected by an industrial hygienist or other technically qualified person for the specific work conditions. If respirators are used, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).
Eye Protection	Wear safety glasses or vented safety goggles.
Gloves	Rubber gloves are recommended as a minimum when handling chemicals.
Clothing	Long sleeved laboratory coats or jackets are recommended as a minimum when handling chemicals.
Other	Eye wash.
Hygiene practices	Do not pipette by mouth. Wash hands thoroughly after handling. Discard any contaminated leather or porous materials.
Exposure controls	N/E

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	None
Odor	None
Properties	pH: neutral Relative density (20°C): 1.0 Solidification point: ~ -2°C Water solubility: Soluble in all proportions.

10. STABILITY AND REACTIVITY

Reactivity	Stable
Materials to avoid	Strong oxidizing agents.

Conditions to avoid None known

Hazardous decomposition products Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Acute Toxicity ORL-Rat LD50:2800 mg/kg
ORL-Mouse LD50:4700 mg/kg

Chronic Toxicity No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity No information available.

Persistence/degradability No information available.

Movement/partitioning No information available. Expected to be mobile in the environment due to high water solubility.

13. DISPOSAL CONSIDERATIONS

RCRA hazardous waste code Not regulated

Special instructions Observe all federal, state and local laws and regulations.

14. TRANSPORT INFORMATION

DOT hazard class Not regulated

TDG hazard class Not regulated

15. REGULATORY INFORMATION

OSHA regulatory status (29 CFR 1910.1200) Not hazardous

CERCLA reportable quantity (40 CFR 117, 302)	Name	Reportable quantity (lbs)
	None	N/A

SARA extremely hazardous substances (40 CFR 355)	Name	Threshold planning quantity (lbs)	Reportable quantity (lbs)
	None	N/A	N/A

SARA hazard categories (40 CFR 370) None

SARA toxic chemicals	Name	CAS Number	Percentage
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(40 CFR 372)

None

N/A

N/A

Inventory Status

The chemicals in this product are either on the TSCA Chemical Substance Inventory and Canadian Domestic Substance List or are subject to the Research and Development exemption.

Toxic Substance Control Act

May only be used for research and development purposes in small quantities by, or under the direct supervision of, technically qualified persons in compliance with 40 CFR Section 720.36.

Controlled Products Regulations

This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS classification

Not a controlled product.

16. OTHER INFORMATION

Abbreviations

C - Ceiling limit
ERG – Emergency Response Guidebook
LC₅₀ - The concentration of a substance in air that will kill 50% of test animals within a certain exposure period.
LD₅₀ - The dose that causes death in 50% of test animals.
N/A - Not applicable
N/D - Not determined
N/E - Not established
N/K - Not known
ERG - Emergency Response Guidebook
RQ - Reportable Quantity
TPQ - Threshold Planning Quantity
WHMIS – Workplace Hazardous Materials Information System

Preparation information

Prepared by
MSDS number
Date prepared
Replaces

Occupational Health & Safety Department
4050029, 4050127
November 17, 2004
New

Disclaimer

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