

S1. Identification of the Material and Company

Product name:	Lyophilized Template Controls
Product number:	All products in the series begin with the following part numbers: 700, 705, 720, 730, 750, 760.
Compound name:	Not applicable
Common name:	Not applicable

Manufacturer:

BioGX

1500 1st Ave N, Unit #34, STE L123
Birmingham, AL 35203 USA

Telephone Number:

(205) 250-8055 (9 AM – 5 PM Central Time US)

E-mail: support@bioqx.com

The following SDS is for the final finished product only as used in the laboratory.

2. Hazards Identification

Appearance:	This product contains 1 part – a freeze-dried cake contained in a sealed tube.
Signal Word:	CAUTION
Hazard Overview:	The freeze-dried component as contained in the tube will not present a hazard under normal use conditions; if the tube is broken or damaged and the freeze-dried components are spilled or released, contact may cause reversible skin and eye irritation or if repeatedly contacted may cause an allergic reaction in some cases.
Statement of Known Hazard:	This product would not be considered hazardous under normal conditions of use. The freeze-dried component contains ingredients that are irritants to the skin and eyes.
EU Indicator of Danger:	Not applicable
EU Risk Phrases:	Not applicable

3. Composition Information on Ingredients

This product contains a freeze-dried cake contained in a sealed tube.

Lyophilized Reagent is a freeze-dried cake contained in a tube with the following hazardous ingredients:

BioGX Part number	Ingredient	CAS #	EINECs / ELINCS #	% Composition ^a	EU Risk Phrase
700-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
705-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
720-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
730-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
750-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
760-series ^b	HEPES Acid and Salt	7365-45-9 (For Acid)	230-907-9 (For Acid)	<5	R36/37/38
720-series ^c	Citric Acid and Salt	5949-29-1 (For Acid)	201-069-1 (For Acid)	<5	R36/37/38

^aAll other ingredients of the freeze-dried component are either non-hazardous under US and EU regulations or GHS guidelines and/or at concentrations less than 1% in the mixture.

^bLyophilized controls containing either purified DNA or inactivated Escherichia coli.

^cLyophilized controls containing purified RNA.

4. First Aid Measures

The following first aid measures are good practices for any chemical exposure.

Eye:	Flush thoroughly with water and notify supervisor and Environmental, Health, and Safety (EHS) personnel. If an irritation develops, get medical aid.
Skin:	Flush thoroughly with water and notify the supervisor and EHS personnel. If an irritation develops, get medical attention.
Ingestion:	If swallowed, wash out mouth with water provided the person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do not induce vomiting unless directed to do so by medical personnel.
Inhalation:	Remove to fresh air and get medical attention for any breathing difficulty.

5. Fire Fighting Measures

Flammability/Explosiveness:	None of the components of the freeze-dried component are considered flammable or explosive.
Extinguishing Media:	CO ₂ , multipurpose dry chemical or vaporizing liquid fire extinguisher.
Special Fire Fighting Procedures:	Wear full protective clothing and a self-contained breathing apparatus with a full face-piece operated in the pressure demand or other positive pressure mode for surrounding fire. Decontaminate all equipment after use.
Hazardous Decomposition Products:	None known.

6. Accidental Release Measures

If product/material is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment. For small spills, wear gloves and absorb spill with paper towel. Dispose of material according to local, State, and Federal waste disposal regulations (see Section 13).

For larger spills, wear personal protective clothing to minimize exposure such as an over-garment, gloves, and eye protection (goggles). Cover spill with absorbent material.

Collect spilled material, absorbent, and rinse waters into suitable containers for proper disposal in accordance with applicable local, state, or Federal waste disposal regulations (see Section 13).

7. Handling and Storage

Handling Precautions: Avoid skin contact, eye contact and inhalation.

Storage Requirements: Store according to product labeling.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits:	None of the ingredients contained in this product have occupational exposure limits established by OSHA, NIOSH, or ACGIH.
Engineering Controls:	None normally required. When practicable, handle material in enclosed or contained processes or in processes with effective local exhaust ventilation.
Eye Protection:	Wear safety glasses with side shields, chemical splash goggles, or full-face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face.
Respiratory Protection:	None normally required. When possible, handle material in enclosed processes or containers. If it is properly handled with effective ventilation or containment, respiratory protection should not be needed.
Skin Protection:	Rubber gloves are recommended to minimize potential for skin contact. In a laboratory setting, wear a lab coat or other protective over garment to minimize skin contact. Base the choice of protection on the job activity and potential for skin contact.
Other:	Facilities storing or using this product should be equipped with an eyewash station and a safety shower. Wash hands, face and other potentially exposed areas immediately after handling material (especially before eating, drinking, or smoking). Decontaminate all protective equipment after use.

9. Physical and Chemical Properties

Physical State:	The freeze-dried components are a solid contained within a sealed tube.
Odor:	Components are odorless.
Vapor Pressure:	Minimal.
Evaporation Rate:	Minimal.
Viscosity:	Not applicable.
Boiling Point:	Not applicable/solid.
Freezing/Melting Point:	No data identified.
Solubility:	The freeze-dried components are soluble in aqueous solutions.
pH:	7.9-8.1

10. Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials.
Incompatibilities with Other Materials:	Strong oxidizing agents, peroxides, strong acids and bases, acid chlorides, acid anhydrides, alkali metals, ammonia.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, nitrogen oxides, and sulfur oxides.
Hazardous Polymerization:	Will not occur.

11. Toxicological Information

Acute Toxicity: The sealed tube contains a freeze-dried cake, which should not present an acute toxicity hazard unless released or spilled.

Irritation/Sensitization: HEPES Salt and HEPES acid are considered skin and eye irritants.

Repeated dose toxicity – No data identified on ingredients.

Reproductive (fertility) and Developmental (birth defects) toxicity – No data identified. None of the ingredients are considered reproductive or developmental toxicants.

Mutagenicity and Carcinogenicity – No data identified on mutagenicity. None of the ingredients are listed by NTP, IARC, or OSHA as carcinogens.

12. Ecological Information

Eco toxicity: No data identified.

Environmental Fate: No data identified.

13. Disposal Considerations

Consult your institution's environmental waste personnel on proper disposal of chemical products per local, state, and federal regulations. Institutions outside the USA should check their country hazardous waste disposal requirements.

14. Transport Information

Transport in accordance with all federal, state, and local transportation regulations. All of the ingredients are not regulated by US DOT or IATA.

15. Regulatory Information

US OSHA: This SDS complies with the requirements under 29 CFR 1910.1200. No hazard labeling is required under US hazard communication regulations.

Canada – WHMIS Classifications

This product is not classified as hazardous according to WHMIS classification criteria.

California Proposition 65

None of the ingredients are listed under California Proposition 65.

SARA 313: CERCLA: RCRA:

None of the ingredients are listed under this regulation. None of the ingredients are listed under this regulation. None of the ingredients are listed under this regulation.

For R&D consumers, products are to be used only for R&D purposes.

For LUO consumers, products are to be used only for LUO purposes.

16. Other Information

No other data available.

Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

CAS#: Chemical Abstract Services Number

CFR Code of Federal Regulations

CERCLA: Comprehensive Environmental Response, Compensation, and

Liability Act DOT: Department of Transportation

EINECS: European Inventory of New and Existing Chemical Substances

EU: European Union

GHS: Global Harmonization System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

OSHA: Occupational Safety and Health Administration

NTP: National Toxicology Program

RCRA: Resource Conservation and Recovery Act

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

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