MATERIAL SAFETY DATA SHEET
Homogenization Buffer (10X)

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

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1. Product and Company Identification

Product Code: 10007063
Product Name: Homogenization Buffer (10X)
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: EIA - Other

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Trizma base	77-86-1	3.028 %	No data.	No data.	No data.
2. Water	7732-18-5	96.3 %	No data.	No data.	No data.
3. Ethylenediamine Tetraacetic Acid	60-00-4	0.292 %	No data.	No data.	No data.
4. EGTA (Ethyleneglycol-bis-(b-aminoethyl ether) N,N,N',N'-tetr	67-42-5	0.38 %	No data.	No data.	No data.

Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Trizma base	TY2900000	No data.	No data.	No data.	No data.
2. Water	ZC0110000	No data.	No data.	No data.	No data.
3. Ethylenediamine Tetraacetic Acid	AH4025000	No data.	No data.	No data.	No data.
4. EGTA (Ethyleneglycol-bis-(b-aminoethyl ether) N,N,N',N'-tetr	AH3760000	No data.	No data.	No data.	No data.

3. Hazards Identification

Emergency Overview: No data available.

Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

Potential Health Effects (Acute and Chronic): Irritant.
Irritating to eyes, respiratory system and skin.
Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, or skin absorption.
The toxicological properties of this compound have not been fully evaluated.

Signs and Symptoms Of Exposure: No data available.

4. First Aid Measures

Emergency and First Aid Procedures: If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
If swallowed, wash out mouth with water provided 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.
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

5. Fire Fighting Measures

Flash Pt:	No data.
Explosive Limits:	LEL: No data. UEL: No data.
Autoignition Pt:	No data.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Flammable Properties and Hazards:	Emits toxic fumes under fire conditions.
Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.
Unsuitable Extinguishing Media:	No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:	Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and Storage

Hazard Label Information:	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Handling:	Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Storing:	Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information:	Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood
Respiratory Equipment (Specify Type):	No data available.
Eye Protection:	Safety glasses
Protective Gloves:	Latex disposable gloves
Other Protective Clothing:	Lab coat
Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States:	[ ] Gas [X] Liquid [ ] Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	No data. Method:
Explosive Limits:	LEL: No data. UEL: No data.
Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.

Evaporation Rate (vs Butyl Acetate=1): No data.
Solubility in Water: No data.
Percent Volatile: No data.
Corrosion Rate: No data.
pH: No data.
Appearance and Odor: A clear, colorless solution

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]
Conditions To Avoid - Instability: No data available.
Incompatibility - Materials To Avoid: strong oxidizing agents
Hazardous Decomposition Or Byproducts: cardon dioxide
carbon monoxide
nitrogen oxides
Hazardous Polymerization: Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Polymerization: No data available.

11. Toxicological Information

Toxicological Information: The toxicological effects of this compound have not been thoroughly studied.
Carcinogenicity/Other Information: No data available.
Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Ecological Information: Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)
DOT Proper Shipping Name: No data available.
Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Trizma base	77-86-1	No	No	No	No
2. Water	7732-18-5	No	No	No	No
3. Ethylenediamine Tetraacetic Acid	60-00-4	No	Yes 5000 LB	No	No
4. EGTA (Ethyleneglycol-bis-(b-aminoethyl ether) N,N,N',N'-tetr	67-42-5	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Trizma base	77-86-1	No	No	No	No
2. Water	7732-18-5	No	No	No	No
3. Ethylenediamine Tetraacetic Acid	60-00-4	No	No	No	No
4. EGTA (Ethyleneglycol-bis-(b-aminoethyl ether) N,N,N',N'-tetr	67-42-5	No	No	No	No

16. Other Information

Company Policy or Disclaimer

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