

SECTION 1: Identification

1.1. Identification

Product form : Resin suspension in storage buffer
 Trade name : Papain Actigel
 Product code : 6700

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

Use of the substance/mixture : Storage buffer for chromatography media.

1.3. Details of the supplier of the safety data sheet

Sterogene Bioseparations, Inc.
 1949 Kellogg Avenue, Carlsbad, CA 92008
 Telephone Number: (760) 929-0455
 Contact Person: James Danford
 jdanford@sterogene.com

1.4. Emergency telephone number

Emergency number: (951) 447-9994

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not a hazardous substance or mixture

2.2. Label elements

GHS-US labelling

Not a hazardous substance or mixture

2.3. Other hazards

Other hazards which do not result in classification: None

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

There are no hazards identified with this material.

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Glycerol	(CAS No) 56-81-5	50%	None
Sodium Acetate	(CAS No) 127-09-3	≤ 1%	None

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.
 First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
 First-aid measures after skin contact : Rinse skin with water/shower. Remove all contaminated clothing.
 First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a physician
 First-aid measures after ingestion : Consult a physician if you feel unwell.

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

The most important symptoms and effects are described in the labeling (section 2.2) and/or section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Alcohol resistant foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Incomplete combustion releases carbon monoxide, carbon dioxide.

Explosion hazard : Not an explosion hazard.

Reactivity : Stable under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use fire-extinguishing media appropriate for surrounding materials.

Protective equipment for firefighters : Do not attempt to take action without suitable protective equipment. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spill area. Do not breathe vapors, spray, and mist. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak, if possible without risk.

Methods for cleaning up : Take up liquid spill into absorbent material. Do not allow product to enter sewers or public waters.

6.4. Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear appropriate personal protective equipment. Do not breathe vapors, spray, and mist. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep dry. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available.

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection : Impermeable protective gloves.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls : Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Aqueous solution
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Incomplete combustion releases oxides of carbon and nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure	: Oral; Inhalation; Skin and eye contact
Acute toxicity	: Not classified
Skin corrosion/irritation	: No data available
Serious eye damage/irritation	: No data available
Respiratory or skin sensitization	: No data available
Germ cell mutagenicity	: No data available

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Carcinogenicity	IARC	: No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.
	ACGIH	: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	NTP	: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
	OSHA	: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity		: No data available
Specific target organ toxicity (single exposure)		: No data available
Specific target organ toxicity (repeated exposure)		: No data available
Aspiration hazard		: No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Mobility in soil

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of in conformance with all applicable federal, state and local laws and regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

DOT : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

Air transport

Not regulated by IATA - Not regulated for transport by air. : Not dangerous goods

SECTION 15: Regulatory information

15.1. US Federal regulations

SARA 302 Components

Not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic (Glycerol)

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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15.3. US State regulations

No additional information available.

SECTION 16: Other information

Sources of Key data	: Data arise from reference works and literature.
Abbreviations and acronyms	: ACGIH - American Conference of Government Industrial Hygienists PEL- Permissible Exposure Level TWA- Time Weighted Average URT irr -upper respiratory tract irritation

The information contained herein is presented in good faith and is believed to be correct as of the date prepared, but does not purport to be all inclusive. Regulatory requirements are subject to change and may differ depending on location. It is the customer's responsibility to ensure that its activities are in compliance with local, state, federal or provincial laws.

No information contained in this document is to be taken as a warranty for which Sterogene Bioseparations, Inc. bears responsibility. Sterogene shall not be held liable for any damage resulting from handling or from contact with the product. All materials may present hazards and should be used with caution. Although specific hazards are described, we cannot guarantee that these are the only hazards that exist.