

Material Safety Data Sheet



1. Product and Company Identification

Product Name Benzonase[®] Nuclease, 250 U/μl, > 90%
Catalog Number R1005E, R1006E
Supplier Semba Biosciences, Inc.
505 South Rosa Road, Suite 106A
Madison, Wisconsin 53719
866-634-1114 or 608-441-8009
Fax: 608-441-8329
Emergency Contact Information 866-634-1114 or 608-441-8009

2. Composition/Information on Ingredients

Synonyms: Endonuclease from *Serratia marcescens*

Ingredient	CAS-No.	%
Glycerol	56-81-5	50%
Magnesium chloride hexahydrate	7791-18-6	0.04%
Sodium Chloride	7647-14-5	0.11%
Tris (hydroxymethyl) aminomethane free base	77-86-1	0.24%
Enzyme	--	0.025-0.04%

3. Hazards Identification

Emergency Overview May cause respiratory tract, eye and skin irritation.
OSHA/HCS Status Target organ effect: Kidney
Routes of Entry Dermal contact, ingestion, eye contact, inhalation
Potential Acute Health Effects
Inhalation May cause respiratory irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through the skin. May cause skin irritation.
Eyes May cause eye irritation.
Potential Chronic Health Effects
Carcinogenicity No known significant effects or critical hazards.
Mutagenicity No known significant effects or critical hazards.
Teratogenicity No known significant effects or critical hazards.
Developmental Effects No known significant effects or critical hazards.

4. First Aid Measures

Eye Contact In case of contact, remove contact lenses if wearing. Flush eyes with copious amounts of water for at least 15 minutes. Call a physician.
Skin Contact In case of contact, wash skin thoroughly with water.
Inhalation If inhaled, move person to fresh air. If individual is not breathing, trained personnel should provide artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician.
Ingestion Rinse mouth with water. Do not induce vomiting unless directed to do so by

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medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Fire-fighting Measures

Flammability of the Product	May be combustible at high temperatures
Suitable Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire.
Special Protective Equipment for Fire-fighters	Wear appropriate protective equipment and self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal Precautions	Avoid breathing vapors, mist or gas.
Environmental Precautions	Avoid spread of spilled material and contamination of waterways, soil, drains and sewers. Notify appropriate authorities if product has caused environmental pollution.
Methods for Cleaning Up	Contain and collect spill with non-combustible, absorbent material (sand, diatomaceous earth, vermiculite) and dispose of according to federal, state and local regulations.

7. Handling and Storage

Handling	Avoid breathing vapors and contact with eyes, skin and clothing. Do not ingest. Use with adequate ventilation. Keep the material in the original container or a permitted alternative made of compatible material. Keep container tightly closed. Dispose of empty containers according to local regulations keeping in mind empty containers contain product residue.
Storage	Store in accordance with local regulations. Keep container tightly closed.

8. Exposure Controls/Personal Protection

Engineering Controls	Use only with adequate ventilation. If dust, vapors or mists are generated provide local exhaust ventilation or other engineering controls to keep exposure to airborne contaminants below any recommended or statutory limits.
Hygiene Measures	Thoroughly wash hands, forearms and face after handling chemical products and before eating, smoking or using the lavatory and at the end of the working period. Appropriate techniques should be used to remove contaminated or potentially contaminated clothing. Wash contaminated clothing before reusing. Check that safety showers and eyewash stations are located near work areas.
Personal Protective Equipment	
Respiratory	If risk assessment indicates it is necessary, use a NIOSH (US) approved respiratory protective equipment. The selection of respiratory equipment must be based on anticipated exposure levels, product hazards and the safe working limits of the respirator.
Hands	Chemical resistant gloves complying with an approved standard.

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Eyes
Skin

Safety glasses, splash goggles
Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Environmental Exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and Chemical Properties

Physical State	Liquid
Color	Colorless
Odor	Odorless
pH	8.0
Melting Point	Not available
Boiling Point	Not available
Flash Point	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Odor Threshold	Not available
Evaporation Rate	Not available
Solubility	Partially soluble in water

10. Stability and Reactivity

Storage Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Under normal conditions of storage, hazardous reactions should not occur.
Materials to Avoid	Strong oxidizing agents
Conditions to Avoid	No specific data
Hazardous Decomposition Products	Under normal conditions of storage, hazardous decomposition should not occur.
Hazardous Polymerization	Under normal conditions of storage, hazardous polymerization should not occur.

11. Toxicological Information

Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.

12. Ecological Information

Environmental Effects	No known significant effects or critical hazards.
Further information	-

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13. Disposal Considerations

Product	Observe all federal, state and local environmental regulations.
Contaminated Packaging	Dispose of the packaging in the same manner as unused product. Observe all federal, state and local environmental regulations.

14. Transport Information

DOT: Road Transport	Not controlled.
ADR/RID: Land Transport (cross border)	Not controlled.
IATA: Air Transport	Not controlled.
IMDG: Maritime Transport	Not controlled.

15. Regulatory Information

SARA 302 Components	No products were found
SARA 313 Components	This product does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.
Massachusetts Right to Know Components	Glycerol
Pennsylvania Right to Know Components	Glycerol
New Jersey Right to Know Components	Glycerol
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth or any other reproductive defects.

16. Other Information

The information given herein is offered in good faith as accurate, but does not claim to be all inclusive and shall be used only as a guide. All materials may pose unknown hazards and should be used with caution. Users should consider this information supplemental to other information gathered by them and must determine independently the completeness and suitability of information from all sources with regard to the correct use, storage and disposal of these materials and the safety of employees, customers and the environment. Semba Biosciences, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for research use only.

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