

MATERIAL SAFETY DATA SHEET

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Revised 1/02/98
Replaces 7/22/97
Printed 2/09/98

EMPORASE MICROBIAL RENNET
CAROLINA BIOLOGICAL SUPPLY COMPANY

1. PRODUCT DESCRIPTION

Product Name: Emporase Microbial Rennet
Product Code(s): 20-2300, 20-2305
Size: 30ml
Chemical Name: Protease
CAS Number: None
Formula: Does not apply
Synonyms: Enzyme protease
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components:
TLV and PEL units: None established

3. HAZARD IDENTIFICATION

Emergency Overview: Do not splash or create dust or aerosols of the product.
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
Ingestion - If swallowed, if conscious, give plenty of water. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): None
HMIS Rating: Health = 1
Flammability = 0
Reactivity = 0
NFPA Rating: Health = 1
Flammability = 0
Reactivity = 0
Extinguisher Media:
Use dry chemical, CO2 or appropriate foam.

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5. FIREFIGHTING PROCEDURES (Cont.)

Flammable Limits in Air % by Volume: Not applicable

Autoignition Temperature: Not applicable

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: None

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Spilled product should be removed immediately to avoid formation of dust. Remove by mechanical means (ie. vacuum). Dilute the remainder with water. Avoid formation of aerosols. Provide sufficient ventilation.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Avoid splashing and high pressure washing. Provide good ventilation. Store in a cool place.

Other Precautions: Maintain good industrial hygiene.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection(Specify Type):

None needed under normal conditions of use with adequate ventilation. NIOSH approved equipment should be worn if PELs are exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab coat, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight: No data available

Melting Point: No data available

Boiling Point: No data available

Vapor Pressure: No data available

Vapor Density(Air=1): >1

Specific Gravity(H2O=1): 1.14

Percent Volatile by Volume: No data available

Evaporation Rate(H2O=1): No data available

Solubility in Water: Complete

Appearance and Odor: clear, dark brown liquid with a slight fermentation odor.

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10. REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Splashing, dust, and aerosol production.
Incompatibility(Materials to Avoid): chlorine
Hazardous Decomposition Products: None
Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: oral rat LD50 > 2 g/kg
Effects of Overexposure:
Acute: See section 3
Chronic: No data available
Conditions Aggravated by Overexposure: Allergies
Target Organs: Lungs, eyes
Primary Route(s) of Entry: contact, inhalation

12. ECOLOGICAL DATA

EPA Waste Numbers: None
Product is readily biodegradable.

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State, and local authority regulations. No special disposal requirements.
Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Not established

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name Chemical List Category	CERCLA Sec. 103 RQ lbs.	RCRA Sec. 261.33
Protease	no	no none	no	no

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess

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16. ADDITIONAL INFORMATION (Cont.)

the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Services Abstract Number

CERCLA.....Comprehensive Environmental Response, Compensation, and
Liability Act

DOT.....U.S. Department of Transportation

IARC.....International Agency of Research on Cancer

N/A.....Not Available

NTP.....National Toxicology Program

OSHA.....Occupational Safety and Health Administration

PEL.....Permissible Exposure Limit

ppm.....parts per million

RCRA.....Resource Conservation and Recovery Act

SARA.....Superfund Amendments and Reauthorization Act

TLV.....Threshold Limit Value

TSCA.....Toxic Substances Control Act