

UREASE, POWDER
CAROLINA BIOLOGICAL SUPPLY COMPANY

9. PHYSICAL DATA (Cont.)

Solubility in Water: Slightly soluble
Appearance and Odor: Tan, mealy powder; no odor

10. REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Excessive temperature and heat.
Incompatibility(Materials to Avoid): Strong oxidizing materials.
Hazardous Decomposition Products: When heated to decomposition, emits toxic fumes of various hydrocarbon decomposition products, oxides of nitrogen(NOx) and sulfur(SOx); can react with strong oxidizing materials.
Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: Intraperitoneal-rat LD50: 60 mg/kg
Effects of Overexposure: Material is not a hazardous or toxic material. However, any material that contacts the eye may be irritating.
Acute: See section 3
Chronic: Material is not listed (IARC, NTP, OSHA) as cancer causing agent.
Conditions Aggravated by Overexposure: N/A
Target Organs: Eyes, Skin, mouth, throat, gastrointestinal tract, respiratory tract.
Primary Route(s) of Entry: Inhalation, ingestion, eyes, skin.

12. ECOLOGICAL DATA

EPA Waste Numbers: None

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.
Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Non-regulated

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
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15. REGULATORY INFORMATION (Cont.)

Urease	No	No	No	No	No
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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 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

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1. PRODUCT DESCRIPTION

Product Name: Urease, Powder
Product Code(s): 89-7690, 20-2275
Size: 10 g
Chemical Name: Urease
CAS Number: 9002-13-5
Formula: Complex Enzyme
Synonyms: From Jack Bean Meal
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: Urease, Powder (CAS#9002-13-5) 100%
TLV and PEL units: None established

3. HAZARD IDENTIFICATION

Emergency Overview: Caution! Low hazard for usual laboratory. Handling; non-toxic. May cause irritation.
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 and induce vomiting immediately as directed by medical personnel. 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): N/A
NFPA Rating: Health: 0
Fire: 1
Reactivity: 0

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5. FIREFIGHTING PROCEDURES (Cont.)

Extinguisher Media:

Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures:

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

Unusual Fire and Explosion Hazards: Fire or excessive heat may produce various hazardous hydrocarbon decomposition products, oxides of nitrogen (NOx) and sulfur (SOx); can react with strong oxidizing materials.

6. SPILL OR LEAK PROCEDURES

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

Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Store in a cool, dry place away from strong oxidizing materials.

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:	N/A
Melting Point:	Decomposes
Boiling Point:	Decomposes
Vapor Pressure:	Negligible as solid
Vapor Density (Air=1):	Data not listed
Specific Gravity (H2O=1):	Less than 1
Percent Volatile by Volume:	N/A
Evaporation Rate (H2O=1):	N/A