

Material Safety Data Sheet



Biuret Reagent

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Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Biuret Reagent

Product Code(s): 84-8209, 84-8211, 84-8213, 84-8215, 20-2340, 20-2341, 10-1026

Size: 30 ml (1oz), 100 mL, 500 mL, 4 L

Chemical Name: See Section 3

CAS Number: See Section 3

Formula: See Section 3

Synonyms: None known

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: **DANGER** - Causes severe burns. Harmful if swallowed.

Potential Health Effects:

Eyes: Causes severe burns and eye damage upon direct contact. Vapor is irritating.

Skin: May cause severe irritation or chemical burns.

Ingestion: May severely irritate or damage digestive tract.

Inhalation: May severely irritate or damage mucous membranes and respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ethylene Glycol (CAS# 107-21-1) 9.3%; Copper Sulfate, 5-Hydrate (CAS# 7758-99-8) 1.7%; Sodium Hydroxide (CAS# 1310-73-2) 16.7%

TLV units: ACGIH-TLV (Cupric Sulfate, 5-Hydrate) 1 mg(Cu)/m³ (TWA)

ACGIH-TLV (Ethylene Glycol) 100 mg/m³ (Ceiling)

ACGIH-TLV (Sodium Hydroxide) 2 mg/m³ (Ceiling)

PEL units: OSHA-PEL (Cupric Sulfate, 5-Hydrate) 1 mg(Cu)/m³ (TWA)

OSHA-PEL (Ethylene Glycol) 50 ppm (Ceiling)

OSHA-PEL (Sodium Hydroxide) 2 mg/m³ (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 3

Fire: 0

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

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: N/A

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep locked up and out of the reach of children.

Avoid contact with skin.

Harmful if swallowed. Keep container tightly closed in a cool, well-ventilated place.

Store in a secure area suitable for corrosives.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Acceptable

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: N/A

Solubility in Water: Soluble

Melting Point: N/A

Vapor Pressure: N/A

Specific Gravity (H₂O=1): N/A

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Dark Blue, odorless solution.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: None Known

Incompatibility (Materials to Avoid): Acids, Water-reactive Material,

Hazardous Decomposition Products: CO_x, Metal Fumes,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: (Cupric Sulfate, 5-Hydrate) orl-rat LD50 300 mg/kg
(Ethylene Glycol) ihl-hmn TCLo: 10000 mg/m³
(Ethylene Glycol) orl-hmn LDLo: 398 mg/kg
(Sodium Hydroxide) ipr-mus LD50: 40 mg/kg
(Sodium Hydroxide) orl-rbt LDLo: 500 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited.

Conditions Aggravated by Overexposure: N/A

Target Organs: Skin, Liver, Kidneys, Central Nervous System,

Primary Route(s) of Entry: Inhalation and skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 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.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1824, Sodium hydroxide solution, 8, II

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Reaction Acute

Name List:

Cupric Sulfate, 5-Hydrate: No
Sodium Hydroxide: No
Ethylene Glycol: Yes

Chemical Category:

Cupric Sulfate, 5-Hydrate: Copper Compound
Sodium Hydroxide: No
Ethylene Glycol: No

CERCLA Section 103 RQ(lb.): Cupric Sulfate, 5-Hydrate: 10

Sodium Hydroxide: 1000

Ethylene Glycol: 5000

RCRA Section 261.33: Cupric Sulfate, 5-Hydrate: No

Sodium Hydroxide: No

Ethylene Glycol: No

Section 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