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MATERIAL SAFETY DATA SHEET

MSDS No.: BB0150
Revision Date: August 29, 2013
Approved by: James A. Bertsch

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Section 1 Chemical Product and Company Information

Product	BIURET TEST REAGENT
Synonyms	Biuret Solution for Protein Test

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

Section 2 Hazards Identification

Emergency Overview

DANGER! CORROSIVE!

HARMFUL IF SWALLOWED. CAUSES BURNS TO SKIN AND EYES.

Product can react violently with acids and other substances. Avoid contact with skin, eyes and clothing. Store in a cool place. Target organs: Respiratory and gastrointestinal tracts, eyes, skin.

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Health	2
Fire	0
Reactivity	1
Contact	3

HMIS *

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	TLV Units
Sodium hydroxide	1310-73-2	6.42%	TWA: C 2 mg/m ³
Potassium sodium tartrate	6381-59-5	1.65%	None established.
Cupric sulfate	7758-99-8	1.18%	TWA: 1 mg/m ³
Potassium iodide	7681-11-0	0.35%	None established.
Ethylenediaminetetraacetic acid	6381-92-6	0.02%	None established.
Water	7732-18-5	90.38%	None established.

(ACGIH 2001)

Section 4 First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

General information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume. Contact with metals can generate hydrogen gas.

Extinguishing Media: Carbon dioxide, dry chemical, water spray, alcohol foam.

Flash Point: Non-flammable.

Autoignition temperature: N/A

Explosion Limits: Lower: N/A **Upper:** N/A

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe



Section 6 Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

(2008 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2008), GUIDE PAGE NO. 154)

Section 7 Handling & Storage CORROSIVE STORAGE CODE WHITE

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, spray or mist. Wash thoroughly after handling. Remove and wash clothing before reuse.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Physical state: Liquid.

Appearance: Clear, light blue.

Odor: No odor.

pH: N/A

Vapor pressure (mm Hg): 14 (water)

Vapor Density (Air = 1): 0.7 (water)

Evaporation rate (Butyl acetate = 1): > 1

Viscosity: N/A

Boiling point: ~100°C (212°F)

Freezing / Melting point: ~0°C (32°F)

Decomposition temperature: N/A

Solubility: Complete.

Specific gravity (H₂O = 1): ~1.05

Percent volatile (%): 90.38%

Molecular formula: Mixture.

Molecular weight: Mixture.

Section 10 Stability & Reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures to cause evaporation. Can react with carbon dioxide to form sodium carbonate.

Incompatibilities with other materials: Metals, acids, organic compounds, organic nitro compounds.

Hazardous decomposition products: Sodium oxide. Reacts with metals to form flammable and explosive hydrogen gas.

Section 11 Toxicological Information

Effects of overexposure: Ingestion causes severe burns and complete tissue perforation of mucous membranes of the mouth, throat and stomach. Inhalation causes burns of the respiratory tract. Severe exposure can result in chemical pneumonia. Contact with skin and eyes may cause severe irritation or burns.

ORL-RAT LD50: N/A

IHL-RAT LC50: N/A

SKN-RBT LD50: N/A

Section 12 Ecological Information

Data not yet available.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: UN1824

Shipping name: Sodium hydroxide solution

Hazard class: 8

Packing group: II

Exceptions: Ltd Qty ≤ 1 Lt.

Section 15 Regulatory Information

Data not yet available.

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards.