

# Material Safety Data Sheet

## Biuret reagent

ACC# 75176

### Section 1 - Chemical Product and Company Identification

MSDS Name: Biuret reagent

Catalog Numbers: LC11690

Synonyms: Biuret reagent for protein analysis

Company Identification:

Labchem Inc.

200 William Pitt Way

Pittsburgh, PA 15238

For information, call: 412-826-5230

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1310-73-2	Sodium hydroxide	10	215-185-5
6381-59-5	Potassium sodium tartrate	<1	unlisted
7732-18-5	Water	balance	231-791-2

Chronic: Prolonged or repeated skin contact may cause dermatitis. Individuals with Wilson's disease are unable to metabolize copper. Thus, copper accumulates in various tissues and may result in liver, kidney, and brain damage. Copper salts may also cause extensive damage to the kidneys, liver, and capillaries with CNS depression, hemolytic anemia, joint pain, gastric hemorrhage and joint pain indicating intoxication. Relatively large doses of dry sodium potassium tartrate (2-4 gm) may have a cathartic effect.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until chemical is gone. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

**Skin:** Get medical aid at once. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

**Ingestion:** Do NOT induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once. Medical personnel may do esophagoscopy, irrigate injured area with 1% acetic acid to neutralize alkali.

**Inhalation:** Give artificial respiration if necessary. If breathing is difficult, give oxygen. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Firefighting Measures

**General Information:** Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Use water with caution and in flooding amounts. Negligible fire and explosion hazard when exposed to heat or flame.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Material may be neutralized to pH 7 with citric acid or other suitable neutralizing agent.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Keep away from metals. Keep away from flammable liquids. Keep away

from organic halogens.

## Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium hydroxide	C 2 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> IDLH	2 mg/m <sup>3</sup> TWA
Potassium sodium tartrate	none listed	none listed	none listed
Water	none listed	none listed	none listed
Copper (ii) sulfate pentahydrate (1:1:5)	none listed	none listed	none listed

OSHA Vacated PELs: Sodium hydroxide: No OSHA Vacated PELs are listed for this chemical. Potassium sodium tartrate: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical. Copper (ii) sulfate pentahydrate (1:1:5): No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear alkali resistant protective clothing.

Respirators: Provide local exhaust or process enclosure to meet Permissible Exposure Limits (PEL). Not required for normal use. 100mg/m<sup>3</sup>: HiEPF/SAF/SCBAF. g/m<sup>3</sup>: PAPHiEF/SAF: PD, PP, CF. e: DMXSF/SCBAF.

## Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear blue

Odor: Not available.

pH: Alkaline

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: > 1 (ether= 1)

Boiling Point: 212 deg F

Freezing/Melting Point: 32 deg F

Decomposition Temperature: Not available.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

NFPA Rating: Not published.

Explosion Limits, Lower: Not available.

Upper: Not available.

Solubility: Completely soluble in water.

Specific Gravity/Density:

---

Ecotoxicity: No data available. TLm, mosquito fish, 125 ppm/96hr. (fresh water); TLm, bluegill, 99 mg/48hr. (tap water).

Environmental: Once liquid, sodium hydroxide leaches rapidly into the soil.

## TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

## SARA

### Section 302 (RQ)

CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)

### Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

### SARA Codes

CAS # 1310-73-2: acute, reactive. CAS # 6381-59-5: acute. CAS # 7758-99-8: acute, chronic.

### Section 313

This chemical is not at a high enough concentration to be reportable under Section 313.

### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

### Clean Water Act:

CAS# 1310-73-2 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

### STATE

CAS# 1310-73-2 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

CAS# 6381-59-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7758-99-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

European Labeling in Accordance with EC Directives

### Hazard Symbols:

Not available.

### Risk Phrases:

### Safety Phrases:

S 2 Keep out of reach of children.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 3/7/9 Keep container tightly closed in a cool, well-ventilated place.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 28A After contact with skin, wash immediately with plenty of water.

### WGK (Water Danger/Protection)

CAS# 1310-73-2: 1

CAS# 6381-59-5: 0

CAS# 7732-18-5: No information available.

CAS# 7758-99-8: 2

### Canada

CAS# 1310-73-2 is listed on Canada's DSL List. CAS# 1310-73-2 is listed on Canada's DSL List.

CAS# 1310-73-2 is listed on Canada's DSL List. CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List. CAS# 7732-18-5 is listed on Canada's DSL List.

WHMIS: Not available.

CAS# 1310-73-2 is listed on Canada's Ingredient Disclosure List.

CAS# 6381-59-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7758-99-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 1310-73-2: OEL-AUSTRALIA:TWA 2 mg/m<sup>3</sup> OEL-BELGIUM:STEL 2 mg/m<sup>3</sup>

OEL-DENMARK:TWA 2 mg/m<sup>3</sup> OEL-FINLAND:TWA 2 mg/m<sup>3</sup> OEL-FRANCE:TWA 2 mg

/m<sup>3</sup> OEL-GERMANY:TWA 2 mg/m<sup>3</sup> OEL-JAPAN:STEL 2 mg/m<sup>3</sup> OEL-THE NETHERLA

NDS:TWA 2 mg/m<sup>3</sup> OEL-THE PHILIPPINES:TWA 2 mg/m<sup>3</sup> OEL-SWEDEN:TWA 2 mg/

m<sup>3</sup> OEL-SWITZERLAND:TWA 2 mg/m<sup>3</sup>;STEL 4 mg/m<sup>3</sup> OEL-THAILAND:TWA 2 mg/m<sup>3</sup>

OEL-TURKEY:TWA 2 mg/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 2 mg/m<sup>3</sup>;STEL 2 mg/m<sup>3</sup>

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW

ZEALAND, SINGAPORE, VIETNAM check ACGI TLV