

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Biuret Protein Testing Solution

CAS number N/A

Synonyms Biuret Solution

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Corrosion/Irritation Category 1A
Hazardous to the aquatic environment - Chronic Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Hazard statements Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statements Do not breathe mist/vapours/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER or doctor.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Store locked up.
Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Health hazards not otherwise classified (HHNOC) - Not Know
Physical hazards not otherwise classified (PHNOC) - Not Know

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	H ₂ O	7732-18-5	67.04%
Sodium Hydroxide	Caustic soda	1310-73-2	20.6%
Ethylene Glycol 100%	monoethylene glycol	107-21-1	10.3%
Copper (II) Sulfate, 5-Hydrate	Blue Vitriol	7758-99-8	2.06%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
In case of skin contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed	Rinse mouth. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Headache, Shortness of breath.

4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use media suitable to extinguish surrounding fire.

Unsuitable extinguishing media

5.2 Specific hazards arising from the substance or mixture

Fire or excessive heat may produce hazardous decomposition products.

5.3 Special protective equipment and precautions for firefighters

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

5.4 Further information

Flash Point 111 °C

Autoignition Temperature No information available.

Explosion limits

Upper Data not available

Lower Data not available

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

6.2 Environmental precautions

Avoid breathing material. Avoid contact with skin and eyes.

6.3 Methods and materials for containment and cleaning up

Reduce airborne dust and prevent scattering by moistening with water. Ventilate the area by opening door and/or turning on fans and blowers. Avoid runoff into storm sewers and ditches that lead to waterways. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches that lead to waterways.

6.4 Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin.

Hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Incompatibilities

Water-reactive materials, Strong reducing agents, Acids, Hydroquinone, Organic halides, Phosphorus, Alcohols, Metals, Aldehydes, Acetaldehydes, Aluminum alloys, Caustics (bases), Strong acids, Strong oxidizing agents, Hydroxylamine, Hypobromite, Magnesium

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Sodium hydroxide	TWA	2 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Sodium hydroxide	STEL	2 mg/m ³
Copper (II) Sulfate, 5-Hydrate	TWA	1 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Sodium hydroxide	STEL	2 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal protective equipment

Eye/face protection

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin protection

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Body Protection

Lab coat, apron, eye wash, safety shower.

Respiratory protection

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Blue Liquid
Odor	None
Odor Threshold	No data available
pH	No data available
Melting Point/Range	-12 °C
Boiling Point/Range	No data available
Evaporation Rate	No data available
Flammability (solid)	No data available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	No data available
Solubility	Soluble
Partition coefficient;	No data available
Autoignition Temp	No data available
Decomposition Temp	No data available
Viscosity	No data available
Molecular Formula	No data available
Molecular Weight	No data available
VOC Content(%)	No data available

Oxidizing properties

No data available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not generally reactive under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Will not occur

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Water-reactive materials, Strong reducing agents, Acids, Hydroquinone, Organic halides, Phosphorus, Alcohols, Metals, Aldehydes, Acetaldehydes, Aluminum alloys, Caustics (bases), Strong acids, Strong oxidizing agents, Hydroxylamine, Hypobromite, Magnesium

10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Iodine (gas), Potassium Oxide, Sodium Oxides, Copper compounds

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90000 mg/kg (Rat)	Not listed	Not listed
Ethylene Glycol 100%	4700 mg/kg (Rat)	10626 mg/kg (Rabbit)	Not listed
Copper (II) Sulfate, 5-Hydrate	300 mg/kg (Rat)	> 2000 mg/kg (Rat)	Not listed

Skin corrosion/irritation

No additional information.

Serious eye damage/eye irritation

No additional information.

Respiratory or skin sensitization

No additional information.

Germ cell mutagenicity

No evidence of a mutagenic effect

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Sodium Hydroxide	1310-73-2	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No additional information.

Specific target organ toxicity - repeated exposure

No additional information.

Reproductive toxicity

No additional information.

Chronic effects

No additional information.

11.2 Additional Information

No additional information.

SECTION 12: Ecological information**12.1 Toxicity**

Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Keep out of waterways.

12.2 Persistence and degradability

Dissolved into water, Adsorbs to soil., Chemically Transformed

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14: Transport information

DOT (US)

UN Number	UN1824
Proper Shipping name	Sodium Hydroxide Solution
Hazard Class	Class 8
Packaging Group	III

IMDG

UN Number	UN1824
Proper Shipping name	Sodium Hydroxide Solution
Hazard Class	Class 8
Packaging Group	III

IATA

UN Number	UN1824
Proper Shipping name	Sodium Hydroxide Solution
Hazard Class	Class 8
Packaging Group	III

SECTION 15: Regulatory information

US federal

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not applicable

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed, Sodium Hydroxide (CAS # 1310-73-2) 1000 lb (454kg) final RQ

Listed, Ethylene Glycol 100% (CAS # 107-21-1) 5000 lb final RQ; 2270 kg final RQ

SARA 304 Emergency release notification

Listed, Sodium Hydroxide (CAS # 1310-73-2) 1000 lb RQ

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not applicable

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not applicable

SARA 311/312 Hazardous

Not applicable

SARA 313 (TRI reporting)

Not applicable

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not applicable

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not applicable

Safe Drinking Water Act

Not applicable

FEMA Priority Substances Respiratory Health and Safety in the Flavor

Not applicable

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed, Sodium Hydroxide (CAS # 1310-73-2)

Listed, Ethylene Glycol 100% (CAS # 107-21-1)

California Proposition 65

Listed, Ethylene Glycol 100% (CAS # 107-21-1)

SECTION 16: Other information

Date of Issue: 10/22/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.