


# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**  
Trade name **Biuret Total Protein Reagent**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use(s) **In vitro diagnostic reagent. For professional use only.**
- 1.3 Details of the supplier of the safety data sheet**  
Company Identification **ChemHaz Solutions,  
Laccaroe,  
Feakle,  
Co. Clare,  
Ireland.**  
Telephone **+ 353 61 924146**  
E-Mail (competent person) **info@chemhazsolutions.com**
- 1.4 Emergency telephone number**  
Emergency Phone No. **+ 353 61 924146 (8:30am - 6:00pm)**

## SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]**  
Skin Corr. 1B **H314: Causes severe skin burns and eye damage.**  
Met. Corr. 1 **H290: May be corrosive to metals.**  
Aquatic Chronic 2 **H411: Toxic to aquatic life with long lasting effects.**
- 2.1.2 Classification according to Directive 99/45/EC**  
C Corrosive **R34: Causes burns.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**
- 2.2 Label elements**  
Hazard pictogram(s) **According to Regulation (EC) No. 1272/2008 (CLP)**  

- Signal word(s) **DANGER**
- Hazard statement(s) **H314: Causes severe skin burns and eye damage.  
H290: May be corrosive to metals.  
H411: Toxic to aquatic life with long lasting effects.**
- Precautionary statement(s) **P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

P310: Immediately call a POISON CENTRE or doctor/physician.

**Other hazards**

None known

**2.4 Additional Information**

For full text of R/H phrases see section 16.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

EC Classification No. 1272/2008

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard pictogram(s) and Hazard statement(s)
Sodium Hydroxide	2 - 5	1310-73-2	215-185-5	Not available	Skin Corr. 1A; H314 Met. Corr. 1; H290
Copper Sulphate	0.5 - 1	7758-98-7	231-847-6	Not available	Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

EC Classification No. 67/548/EEC

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	EC Classification and Risk Phrases
Sodium Hydroxide	2 - 5	1310-73-2	215-185-5	Not available	C; R35
Copper Sulphate	0.5 - 1	7758-98-7	231-847-6	Not available	Xn, N; R 22-36/38-50/53

### 3.3 Additional Information

For full text of H/P phrases see section 16.

## SECTION 4: FIRST AID MEASURES



### 4.1 Description of first aid measures

Inhalation

Move person to fresh air. Consult a doctor in case of complaint.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

Ingestion

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes burns to skin, eyes, respiratory system and gastrointestinal tract.

### 4.3 Indication of the immediate medical attention and special treatment needed

Treat symptomatically.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

## SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media**  
 Suitable Extinguishing Media CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture**  
 In case of fire, the following can be released: Hazardous vapours.
- 5.3 Advice for fire-fighters**  
 Use fire-extinguishing methods suitable to surrounding conditions.  
 Wear full protective suit and self-contained breathing apparatus (SCBA) when extinguishing fires.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**  
 Isolate spillage and clean up immediately.  
 Refer to Section 8 for protective measures when handling the spillage.
- 6.2 Environmental precautions**  
 Avoid release to the environment.
- 6.3 Methods and material for containment and cleaning up**  
 Absorb with liquid-binding material (paper towelling, sand, diatomite, acid binders, universal binders, sawdust).  
 Dispose of contaminated material as waste according to Section 13. Rinse off area with water.
- 6.4 Reference to other sections**  
 8, 13

## SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling**  
 Avoid contact with skin and eyes.  
 Keep out of reach of children.  
 Wash hands before breaks and after work.
- 7.2 Conditions for safe storage, including any incompatibilities**  
 Store in the original container at 2 to 8°C.
- 7.3 Specific end use(s)**  
 In vitro diagnostic reagent. Use as per instructions for use.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**  
**8.1.1 Occupational Exposure Limits**

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note:
Sodium hydroxide	1310-73-2	-	-	-	2	OELV – IRL WEL - UK

- 8.2 Exposure controls**
- 8.2.1 Appropriate engineering controls**  
 Not relevant for this material.
- 8.2.2 Personal protection equipment**  
 Eye/face protection Safety glasses (EN166).



Skin protection (Hand protection/ Other)

Disposable gloves. (EN374).

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)



Material of gloves:	Latex / natural rubber, Nitrile rubber.
Penetration time of glove material:	Gloves resistance is not critical when the product is handled according to the instructions for use.
Body protection	Laboratory coat.
Respiratory protection	Not normally required.
<b>8.2.3 Environmental Exposure Controls</b>	No special measures are required.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	Clear Liquid.
Colour	Blue.
Odour	No odour.
Odour Threshold (ppm)	Not applicable.
pH (Value)	>12
Melting Point (°C) / Freezing Point (°C)	Similar to water, approximately 0°C.
Boiling point/boiling range (°C):	Similar to water, approximately 100°C.
Flash Point (°C)	Not applicable.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Explosive limit ranges	Not applicable.
Vapour Pressure (Pascal)	Similar to water, approximately 23 hPa.
Vapour Density (Air=1)	Not determined.
Density (g/ml)	1.03
Solubility (Water)	Soluble.
Solubility (Other)	Not determined.
Partition Coefficient (n-Octanol/water)	Not determined.
Auto Ignition Temperature (°C)	Not determined.
Decomposition Temperature (°C)	Not determined.
Viscosity (mPa.s)	Not determined.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
<b>9.2 Other information</b>	Not available.

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	See Section: 10.3.
<b>10.2 Chemical stability</b>	The product is stable in accordance with the recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	ammonium compounds: formation of ammonia. metals, light metals: formation of hydrogen (risk of explosion!). Exothermic reaction with: concentrated acids. Hazardous polymerisation will not occur.
<b>10.4 Conditions to avoid</b>	None known.
<b>10.5 Incompatible materials</b>	Strong Acids, ammonium compounds, metals.
<b>10.6 Hazardous Decomposition Product(s)</b>	None known.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### 11.1.2 Mixtures

Acute toxicity	Based upon the available data, the classification criteria are not met. ATE (Oral) > 2,000 mg/kg
Irritation	Based upon the available data, the classification criteria are not met.
Corrosivity	Skin Corr. 1B. Causes severe skin burns and eye damage. (specific concentration limit)
Sensitisation	Based upon the available data, the classification criteria are not met.
Repeated dose toxicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Mutagenicity	Based upon the available data, the classification criteria are not met.
Toxicity for reproduction	Based upon the available data, the classification criteria are not met.
STOT-single exposure	Based upon the available data, the classification criteria are not met.
STOT-repeated exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.

### 11.2 Other information

Causes burns to skin, eyes, respiratory system and gastrointestinal tract.

## SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Toxic to aquatic life with long lasting effects. (summation method).
12.2 Persistence and degradability	Copper ions will persist in the environment.
12.3 Bioaccumulative potential	The product has no potential for bioaccumulation.
12.4 Mobility in soil	The product is predicted to have high mobility in soil.
12.5 Results of PBT and vPvB assessment	Not applicable.
12.6 Other adverse effects	Harmful effect due to pH shift.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product:

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

#### European waste catalogue:

18 01 06.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

**Packaging:** Disposal should be in accordance with local, state or national legislation.  
 Contaminated packaging must be disposed of in the same manner as the product.  
 Non-contaminated packaging materials may be recycled.  
 Contact your local service providers for further information.

## SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	ICAO/IATA
<b>14.1 UN number</b>	3266	3266	3266
<b>14.2 Proper Shipping Name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Contains sodium hydroxide & copper sulphate)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Contains sodium hydroxide & copper sulphate)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Contains sodium hydroxide & copper sulphate)
<b>14.3 Transport hazard class(es)</b>	8	8	8
<b>14.4 Packing Group</b>	II	II	II
<b>14.5 Environmental hazards</b>	Yes	Yes	Yes
<b>14.6 Special precautions for user</b>	Not applicable.	Not applicable.	Not applicable.
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.	Not applicable.	Not applicable.

## SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** In Vitro diagnostics medical devices directive 98/79/EC.
- 15.2 Chemical Safety Assessment** Not applicable.

## SECTION 16: OTHER INFORMATION

### LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
OELV	Occupational Exposure Limit Value
WEL	Workplace Exposure Limit (UK HSE EH40)
STOT	Specific Target Organ Toxicity
ATE	Acute toxicity estimate

### References:

Raw material safety data sheets.

### Classification code:

Met. Corr. 1	Corrosive to metals; Category 1
Acute Tox. 4	Acute toxicity, Category 4
Skin Corr. 1A	skin corrosion/irritation; Category 1A
Eye Irrit. 2;	Eye Irritant; Category 2
Skin Irrit. 2	Skin Irritant; Category 2
Aquatic Acute 1	Hazardous to the aquatic environment, Acute; Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, Chronic; Category 1

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)

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Xn	HARMFUL
N	DANGEROUS FOR THE ENVIRONMENT
C	CORROSIVE

## Hazard statement(s)

H290: May be corrosive to metals.  
H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

## Risk Phrases

R22: Harmful if swallowed.  
R35: Causes severe burns.  
R36/38: Irritating to eyes and skin.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## Additional Information

Reason for update: Update in accordance with Regulation (EU) No 453/2010.  
& Regulation (EC) No. 1272/2008 (CLP)  
Changes to all sections.

Supersedes: Version: 3

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