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

1.1 Product identifier

- Product Name: **TOTAL PROTIEN– Biuret Reagent**

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

- BioScien iagnostic reagent for the in-vitro quantitative determination of total protein in human serum and plasma on both manual and automated systems.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

SECTION 2 Hazards identification

-Primary Routes of Entry: Inhalation, ingestion, skin and / or eye contact.

- Inhalation: Inhalation of Vapours, mists, or sprays of these components may irritate the nose, throat, and lungs. Symptoms are generally alleviated upon breathing fresh air.
- Ingestion: Though not a likely route of occupational exposure, ingestion of this product, especially in large quantities, May cause gastric distress. Symptoms may include: nausea, vomiting, or diarrhea.
- Skin: If the liquid or Vapours of this product come in contact with the skin, mild irritation may develop. Sodium Azide may enter body through skin.
- Eye contact: If the liquid or Vapours of this product come in contact with the eyes, mild irritation may develop.
- Chronic Exposure: N/A
- Medical Conditions Aggravated by Exposure: N/A
- Health Effects: Sodium azide is used as a preservative in this product. Adverse health effects are not expected from the recommended use of this product.

SECTION 3 Composition/information on ingredients

3.1 Substances

Chemical Name	CAS #	% W/V	Exposure Limits in Air				OTHER
			ACGIH		OSHA		NIOSH 0.3 mg/m3 C (skin)
			TLV	STEL	PEL	STEL	
Sodium Azide	26628-22-8	0.1%	N/A	0.29 mg/m3	N/A	N/A	

SECTION 4 First aid measures

4.1 Description of first aid measures

- Contact with skin
  Avoid skin contact. If skin contact occurs, remove contaminated clothing and wash exposed skin with water for atleast 15 minutes. Get medical attention immediately.
- Contact with eyes
  Immediately flush eye(s) with large volume of water for atleast 15 minutes, occasionally lifting the lower lids. Get medical attention immediately.
- Ingestion
  Get medical attention if there has been ingestion of this product.
- Inhalation
  If breathing becomes difficult, remove victim to fresh air. Seek medical attention immediately.

SECTION 5 Fire-fighting measures

- Flash Point (Method used): N/A Flammable Limits – LEL: N/A UEL: N/A
- Extinguishing Media:
  Use fire extinguishing media appropriate for site conditions.
- Special Fire Procedures:
  Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.
- Unusual Fire and Explosion Hazards:
  Sodium azide can react with copper, lead, brass, or solder in plumbing to form explosive compound of lead azide and copper azide. Sodium azide can react with acids to form explosive hydrogen azide.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources.
- Use non-sparking hand tools.
- Avoid raising dust.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses.
- Avoid scattering in the environment.

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

SECTION 7 Handling and storage

7.1 Precautions for safe handling
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities
- Storage temperature: see component label
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from: heat sources, acids.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters
- There are no recommended or established controls for this product.

8.2 Exposure controls
- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.

SECTION 8 Exposure controls/personal protection (continued…)

- Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Homogenous, blue colour liquid.
- Odor: No information available
- pH: N/A
- Melting point/Range: N/A
- Boiling Point/Range: N/A
- Flashpoint : No information available
- Evaporation Rate(nBuAc = 1): N/A
- Flammability: No information available
- Vapor Pressure, mm Hg @ 20oC: N/A
- Vapor Density(air = 1): N/A
- Specific Gravity (water = 1): N/A
- Solubility in water: Soluble

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid:

- Avoid acidification of solution, which may generate hydrogen cyanide gas.

10.5 Incompatible materials

- Strong bases, strong acids, and water reactive materials.

10.6 Hazardous Decomposition Products

- Thermal decomposition may produce carbon monoxide and carbon dioxide.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Sodium Azide (Undiluted): LD50 (rat and mouse, oral)=27mg/kg; LD50 (rabbit, skin)=20mg/kg.

- Carcinogenicity: N/A
- Reproductive effects:N/A.

SECTION 11 Toxicological information (continued…)

- Target organ Effects: Eyes (redness), Skin (redness), central nervous systems (nausea/vomiting), cardiovascular systems (fall in blood pressure, change in heart rate), digestive (nausea/vomiting, diarrhea).
- Teratogenicity: No information available.

SECTION 12 Ecological information

12.1 Environmental Fate / Stability: N/A
12.2 Effect of Material on plants or animals: N/A
12.3 Effect of Chemical on Aquatic Life: N/A

SECTION 13 Disposal considerations

13.1 Waste treatment methods
- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)
- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number
- Not classified as hazardous for transport

14.2 UN Proper Shipping Name
- Not applicable

14.3 Transport hazard class(es)
- Not applicable

14.4 Packing group
- Not applicable

14.5 Environmental hazards
- Not Classified

14.6 Special precautions for user
- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not Classified

14.8 Domestic Surface Transport (US DOT)
- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable

SECTION 14 Transport information (continued…)

- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

SECTION 16 Other information

Date of Preparation: September 2019
Revision: Rev. 0
Replaces: New issue
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