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

1.1 Product identifier

1.2 Product Name: **Bolton Broth Base**

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

Use of the substance/preparation: Laboratory chemical Laboratory and analytical use

Use advised against: no information available

1.4 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

2.1 Classification of the substance or mixture Classification (29 CFR 1910.1200)

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]
  Not classified as hazardous for supply
- Classification (67/548/EEC, 1999/45/EC) (OSHA 29 CFR 1910.1200)
  Not classified as hazardous for supply

2.2 Label elements

- Signal Word: danger
- Symbols: None
- Hazard phrases: (H318) Causes serious eye damage
- Precautionary Phrases:
  Keep container tightly closed.
  Do not breathe dust.
  Avoid contact with eyes, skin, or clothing.

SECTION 3 Composition/information on ingredients

3.1 Substances

INGREDIENT	g/l
Peptone#	10.000
Lactalbumin hydrolysate	5.000
Yeast extract	5.000
Sodium chloride	5.000
Sodium metabisulphite	0.500
Sodium carbonate	0.600
Hemin	0.010
α-ketoglutaric acid	1.000
Sodium pyruvate	0.5

3.2 Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Sodium metabisulphite	7681-57-4	231-673-0	>=1.0 - <=3.0%	Acute Tox.oral 4; Eye Dam. 1 H302; H318
Sodium carbonate	497-19-8	207-838-8	>=1.0 - <=10.0%	Eye Irrit. 2A H319
alpha-Ketoglutaric acid	328-50-7	206-330-3	>=1.0 - <=3.0%	Skin Irrit. 2; Eye Dam. 1; STOT SE 3 H315; H318; H335

Full text of Hazard Statements: see section 16

SECTION 4 First aid measures

4.1 Description of first aid measures

- General

In case of doubt, or when symptoms persist, seek medical attention.

In general, this product is not hazardous to humans or animals, but like any other chemical, it

should be treated with care, respect, and common sense.

- Contact with skin

Wash off with soap and plenty of water. Consult a physician.

If skin irritation or rash occurs: Get medical advice/attention. Contaminated clothing should be laundered before reuse.

- Contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

- Ingestion
- Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

- None

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: Use suitable extinguishing measures that are appropriate to local circumstances and the surrounding environment

Suitable extinguishing media: Water spray, carbon dioxide (CO_2), dry chemical, alcohol-resistant foam

Special hazards arising from the substance: Thermal decomposition can lead to release of irritating gases and vapors

5.2 Advice for firefighters

- In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. **Reference to other sections.** For disposal see Section 13.

6.4 Reference to other sections

- Hazardous combustion products: see section 5.
- Personal protective equipment: see section 8.
- Incompatible materials: see section 10.
- Disposal considerations: see section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Avoid contact with skin and eyes.
- Avoid inhalation of vapor or mist.
- Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended Storage Temperature: On receipt store between 10-30°C

Incompatible substances or mixtures: Observe hints for combined storage.

Consideration of other advice: Ventilation requirements (Use local and general ventilation. Specific designs for storage rooms or vessels recommended storage temperature: 15 – 25 °C Specific end

use(s)).

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects

8.2 Exposure controls

- Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).
- 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: Light yellow to brownish yellow Homogenous, free-flowing powder.
- Odor: No information available
- pH: 7.2 ± 0.2
- Melting point/Range: No information available
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: No information available
- Viscosity: No information availabler
- Explosive Properties: No information available
- Oxidizing Properties: No information available

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Conditions to avoid

No data available

10.4 Incompatible materials

No information available.

10.5 Hazardous combustion products: see section 5

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: No information available

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium metabisulphite	LD50 : 1,420 mg/kg (rat)	LD50: > 2 000 mg/kg (rat)	LC50: > 5.5 mg/L air
Sodium carbonate	LD50: 4090 mg/kg (rat)	No data available	LC50: 5750 mg/l; 2 h (rat)

- Contact with skin: No data available
- Contact with eyes: No data available
- Ingestion: No data available
- Inhalation: No data available
- Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- Mutagenicity: No evidence of mutagenic effects.
- Teratogenicity: No information available

SECTION 12 Ecological information

12.1 Toxicity

Component	Freshwater Fish	Water Flea	Fresh water Algae
Sodium metabisulphite	LC50: 150-220 mg/l; 96 h	EC50: 89 mg/l; 24 h	IC50: 48 mg/l; 72 h
Sodium carbonate	LC50: 300 mg/l; 96 h	EC50: 265 mg/l; 48 h	

12.2 Persistence and degradability
- No data available

12.3 Bioaccumulation Potential
-No data available

12.4 Mobility in soil
- No data available

12.5 Results of PBT and vPvB assessment
-This substance or mixture contains no components considered to be persistent,bioaccumulating nor toxic (PBT) at levels of 0.1% or higher.

12.6 Other Adverse Effects
- To the best of our knowledge, the properties of this material have not been fully evaluated.
- On available data, substance is not harmful to the environment.

SECTION 13 Disposal considerations

13.1 Waste treatment methods
- Offer surplus and non- recyclable solutions to a licenced company Contact a licensed professional waste disposal service to dispose off this material.

Disposal considerations 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
- 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

- 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 HazardousProducts 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

H302: harmful if swallowed
H315: causes skin irritation
H319: causes serious eye irritation
H335: May cause respiratory irritation
Date of Preparation: January 2024
Revision: Rev. 0
Replaces: New issue

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Arena BioScien Manufacturers, SEA. shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANT.

ARENA BioScien

Safety Data Sheet