

## Material Safety Data Sheet

### Section 1 - Product and Company Identification

- 1.1 **Product Name:** Penicillin-Streptomycin solution.
- 1.2 **Catalog Number:** 03-031-1
- 1.3 **Synonyms:** Pen-Strep
- 1.4 **Product Use:** Penicillin-Streptomycin solution is used to supplement cell culture media to control bacterial contamination. Recommended for use in cell culture application at 10ml/L.
- 1.5 **Manufacturer/Supplier:** Biological Industries Israel Beit Haemek Ltd.  
**Address:** Kibbutz Beit Haemek, 25115, Israel
- 1.6 **General Information:** +972-(0)4-9960595  
**Transportation Emergency Number:** NA

### Section 2 - Hazards Identification

- 2.1 **GHS Classification:**

Health	Environmental	Physical
Acute toxicity, oral, Category 5 Reproductive toxicity, category 2 Respiratory sensitization 1 Skin Sensitization 1	NA	NA

**GHS Label:** Warning



Symbols:

<p><b>Hazard Statements</b></p> <p>H303: May be harmful if swallowed</p> <p>H317: May cause an allergic skin reaction</p> <p>H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled</p> <p>H361: Suspected of damaging fertility or the unborn child</p>	<p><b>Precautionary Statements</b></p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection</p> <p>P261: Avoid breathing dust/fumes/gas/mist/vapours/spray</p>
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**Section 3 - Composition / Information on Ingredients**

3.1

Component	CAS Number	Weight %
Penicillin G Sodium salt	69-57-8	~0.1%
Streptomycin Sulfate salt	3810-74-0	~1%

**Section 4 - First Aid Measures**

- 4.1 Eyes:** Eye irritation is possible. In case of eye irritation, flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.
- 4.2 Skin:** Itching or irritation of the skin is possible. In case of skin irritation, immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse.
- 4.3 Ingestion:** Ingestion of mixture is unlikely. Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.
- 4.4 Inhalation:** Irritation by inhalation is possible. In case of Nasal irritation, headache, dizziness, nausea, vomiting, heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability: Remove exposed person from source of exposure to fresh air. If not breathing,



clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

#### Section 5 - Fire Fighting Measures

- 5.1 **Suitable Extinguishing Media:** Use water, dry chemical, foam, or carbon dioxide to extinguish fire.
- 5.2 **Fire Fighting Procedures:** Exposed firefighters should wear protective clothing.
- 5.3 **Unusual Fire and Explosion Hazards:** NA
- 5.4 **Combustion Products:** NA.

#### Section 6 - Accidental Release Measures

- 6.1 Dilute mixture with access amounts of water.

#### Section 7 - Handling and Storage

- 7.1 **Handling:** Do not allow contact with eyes or skin. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use. All handling of open containers should be within aseptic environment and practices.
- 7.2 **Storage:** Store in tightly closed containers frozen in a -20°C environment. Keep containers tightly closed and upright when not in use. Protect against physical damage.

#### Section 8 - Exposure Controls/Personal Protections

- 8.1 **Exposure Limits:** not limited
- 8.2 **Engineering Controls:** Not needed. To be handled aseptically.
- 8.3 **Personal Protective Equipment (PPE):**
- 8.3.1 **Eye Protection:** Wear safety goggles. Have eye-wash stations available where eye contact can occur.
- 8.3.2 **Skin Protection:** Avoid skin contact. Wear gloves impervious to conditions of use.
- 8.3.3 **Respiratory Protection:** NA

#### Section 9 - Physical/Chemical Protections

- 9.1 **Flashpoint:** NA
- 9.2 **Autoignition Temperature:** NA
- 9.3 **Boiling Point:** NA
- 9.4 **Melting Point:** NA
- 9.5 **Vapor Pressure:** NA
- 9.6 **Vapor Density (Air=1):** NA
- 9.7 **% Solubility in Water:** complete @ 20°C
- 9.8 **Pour Point:** NA



9.9	<b>Molecular Formula:</b>	Mixture Solution
9.10	<b>Odor/Appearance:</b>	when defrosted – a clear odorless solution.
9.11	<b>Lower Flammability Limit:</b>	NA
9.12	<b>Upper Flamimability Limit:</b>	NA
9.13	<b>Specifc Gravity:</b>	NA
9.14	<b>% Volatile:</b>	100
9.15	<b>Evaporation Rate (Water=1):</b>	NA
9.16	<b>Viscosity:</b>	NA
9.17	<b>Octanol/Water Partition Coefficient:</b>	NA
9.18	<b>pH:</b>	4.5 – 6.5
9.19	<b>Molecular Weight:</b>	Mixture Solution

#### Section 10 - Stability / Reactivity

10.1	<b>Stability/Incompatibility:</b>	NA
10.2	<b>Hazardous Reactions/Decomposition Products:</b>	NA

#### Section 11 - Toxicological Information

11.1	<b>Signs and Symptoms of Overexposure:</b>	NA
11.2	<b>Acute Effects:</b>	Respiratory and skin sensitization is possible.
11.3	<b>Eye Contact:</b>	May cause irritation.
11.4	<b>Skin Contact:</b>	May cause reddening of skin. May cause allergic skin reaction.
11.5	<b>Inhalation:</b>	May cause irritation
11.6	<b>Ingestion:</b>	Unlikely, may cause gastrointestinal irritation.
11.7	<b>Target Organ Effects:</b>	NA
11.8	<b>Chronic Effects:</b>	NA.
11.9	<b>Medical Conditions Aggravated by Exposure:</b>	NA
11.10	<b>Acute Toxicity Values</b>	
	Oral LD <sub>50</sub> (Rat) = NA	
	Dermal LD <sub>50</sub> (Rabbit) = NA	
	Inhalation LC <sub>50</sub> (Rat) = NA	

#### Section 12 - Ecological Information

12.1	Not Available.
12.2	Bioaccumulation is not expected to be significant. This product is readily biodegradable.

#### Section 13 - Disposal Considerations

13.1	As sold, this product, when discarded or disposed of, is not a hazardous waste according to Local regulations. The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with Local regulations.
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#### Section 14 - Transport Information



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- 14.1 U.S. Department of Transportation (DOT)**
- 14.1.1 Proper Shipping Name: NA
  - 14.1.2 Hazard Class: NA
  - 14.1.3 UN/NA Number: NA
  - 14.1.4 Packing Group: Not Available.
  - 14.1.5 Labels Required: No specific Labels required
- 14.2 International Maritime Organization (IMDG)**
- 14.2.1 Proper Shipping Name: NA
  - 14.1.2 Hazard Class: NA
  - 14.1.3 UN/NA Number: NA
  - 14.1.4 Packing Group: Not Available.
  - 14.1.5 Labels Required: No specific Labels required

<b>Section 15 - Regulatory Information</b>
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- 15.1 U.S. Federal Regulations**
- 15.1.1 Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): NA
  - 15.1.2 Toxic Substances Control Act (TSCA): NA
  - 15.1.3 Clean Water Act (CWA): NA
  - 15.1.4 Clean Air Act (CAA): NA
- 15.2 International Regulations**
- 15.2.1 Canadian Environmental Protection Act: NA
  - 15.2.2 Canadian Workplace Hazardous Materials Information System (WHMIS): NA
- This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
- 15.2.3 European Inventory of Existing Chemicals (EINECS): NA
  - 15.2.4 EU Classification:  
 Reproductive toxicity, category 2  
 Respiratory sensitization 1  
 Skin Sensitization 1
  - 15.2.5 EU Risk (R) and Safety (S) Phrases:  
  
 R42/3  
 R63  
 R22  
 S 36/37

<b>Section 16 - Other Information</b>
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- 16.1 National Fire Protection Association (NFPA) Ratings:** This information is intended solely for the use of individuals trained in the NFPA system.



<b>16.2 Health:</b>	1
<b>16.3 Flammability:</b>	0
<b>16.4 Reactivity:</b>	0
<b>16.5 Revision Indicator:</b>	3.0
<b>16.6 Disclaimer:</b>	The information contained herein is accurate to the best of our knowledge. My Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

