1 Identification

· Product identifier
  · Trade name: Penicilline and Streptomycin solution
  · Article number: 03-031-1

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: Biological Industries Israel Beit Haemek Ltd.
    BEIT HAEMEK 25115
    ISRAEL
    michalb@bioind.com
  · Information department: Product safety department.
  · Emergency telephone number: During normal opening times: +972/4/9962467

2 Hazard(s) identification

· Classification of the substance or mixture
  · GHS07
  · Skin Sens. 1 H317 May cause an allergic skin reaction.

· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms
  · GHS07

· Signal word Warning

· Hazard-determining components of labeling:
  · Penecillin G sodium salt

· Hazard statements
  · May cause an allergic skin reaction.

· Precautionary statements
  · Avoid breathing dust/fume/gas/mist/vapors/spray
  · Contaminated work clothing must not be allowed out of the workplace.
  · Wear protective gloves.
  · If on skin: Wash with plenty of water.
  · If skin irritation or rash occurs: Get medical advice/attention.
  · Specific treatment (see on this label).
  · Wash contaminated clothing before reuse.
  · Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    
    Health = 0
    Fire = 0
    Reactivity = 0

(Contd. on page 2)
Trade name: Penicilline and Streptomycin solution

- HMIS-ratings (scale 0 - 4)
  - HEALTH: Health = 0
  - FIRE: Fire = 0
  - REACTIVITY: Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  69-57-8 Penecillin G sodium salt <1.0%

4 First-aid measures

- Description of first aid measures
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: Do not induce vomiting; immediately call for medical help.
  - Information for doctor:
    - Most important symptoms and effects, both acute and delayed: No further relevant information available.
    - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: Use fire fighting measures that suit the environment.
  - Special hazards arising from the substance or mixture: No further relevant information available.
  - Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Use personal protective equipment. Clean contaminated surfaces thoroughly.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: No special measures required.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
47.0.4 Protective Action Criteria for Chemicals

· PAC-1: None of the ingredients is listed.

· PAC-2: None of the ingredients is listed.

· PAC-3: None of the ingredients is listed.

7 Handling and storage

· Handling:
  · Precautions for safe handling: No special precautions are necessary if used correctly.
  · Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities

· Storage:
  · Requirements to be met by storerooms and receptacles: (-10) - (-20)°C
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions: None.

· Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Control parameters

· Components with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures: Avoid contact with the eyes and skin.

· Breathing equipment: Use suitable respiratory protective device when high concentrations are present.

· Protection of hands:
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Liquid
  - Color: Colorless
- Odor: Characteristic
- Odor threshold: Not determined.
- pH-value at 20 °C (68 °F): 5
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not determined.
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)
- Density: Not determined.
- Relative density: Not determined.
- Vapor density: Not applicable.
- Evaporation rate: Not applicable.
- Solubility in / Miscibility with
  - Water: Soluble.
- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- Solvent content:
  - Water: >97.0 %
  - VOC content: 0.00 %
  - 0.0 g/l / 0.00 lb/gal
- Other information No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.
Trade name: Penicilline and Streptomycin solution

- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer)
      None of the ingredients is listed.
    - NTP (National Toxicology Program)
      None of the ingredients is listed.
    - OSHA-Ca (Occupational Safety & Health Administration)
      None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Generally not hazardous for water
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
14 Transport information

- UN-Number
  - DOT, ADN, IMDG, IATA: not regulated

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: not regulated

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: not regulated

- Packing group
  - DOT, IMDG, IATA: not regulated

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

- UN "Model Regulation": not regulated

15 Regulatory information

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

  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

  - Section 313 (Specific toxic chemical listings):
    None of the ingredients is listed.

- TSCA (Toxic Substances Control Act):
  - 3810-74-0 streptomycin sulphate
  - 7647-14-5 sodium chloride
  - 7732-18-5 water, distilled, conductivity or of similar purity

- TSCA new (21st Century Act) (Substances not listed)
  - 69-57-8 Penicillin G sodium salt

- Proposition 65

  - Chemicals known to cause cancer:
    None of the ingredients is listed.

  - Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.

  - Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.
Trade name: Penicilnine and Streptomycin solution

- **Chemicals known to cause developmental toxicity:**
  3810-74-0 streptomycin sulphate

- **Carcinogenic categories**
  
- **EPA (Environmental Protection Agency)**
  None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**
  None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **GHS label elements**
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

  GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  Penecillin G sodium salt

- **Hazard statements**
  May cause an allergic skin reaction.

- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Contaminated work clothing must not be allowed out of the workplace.
  Wear protective gloves.
  If on skin: Wash with plenty of water.
  If skin irritation or rash occurs: Get medical advice/attention.
  Specific treatment (see on this label).
  Wash contaminated clothing before reuse.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.
- **Contact:** Ms. BADICHI GITLIN
- **Date of preparation / last revision 11/04/2018**
- **Abbreviations and acronyms:**
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
Trade name: *Penicilline and Streptomycin solution*

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<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society)</td>
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<tr>
<td>NFPA</td>
<td>National Fire Protection Association (USA)</td>
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<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System (USA)</td>
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<tr>
<td>VOC</td>
<td>Volatile Organic Compounds (USA, EU)</td>
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<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
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<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>REL</td>
<td>Recommended Exposure Limit</td>
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<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitisation – Category 1</td>
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