1 Identification

- Product identifier
- Trade name: XAV939
- Article number: SM-0012-0010
- CAS Number: 284028-89-3
- Application of the substance / the mixture: Research use

- 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
  - GHS06 Skull and crossbones
  - Acute Tox. 3  H301  Toxic if swallowed.
  - GHS07
  - Eye Irrit. 2A  H319  Causes serious eye irritation.

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

- Hazard pictograms
  - GHS06
  - GHS07

- Signal word: Danger
- Hazard statements
  - Toxic if swallowed.
  - Causes serious eye irritation.

- Precautionary statements
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear eye protection / face protection.
  - If swallowed: Immediately call a poison center/doctor.
  - Specific treatment (see on this label).
  - Rinse mouth.
Trade name: XAV939

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
- NFPA ratings (scale 0 - 4)
  - Health = 2
  - Fire = 0
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 2
  - Fire = 0
  - Reactivity = 0

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

3 Composition/information on ingredients

- Chemical characterization: Substances
  - CAS No. Description
    284028-89-3 XAV939

4 First-aid measures

- Description of first aid measures
  - General information:
    Immediately remove any clothing soiled by the product.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - 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 During combustion, may emit irritant fumes.
  - Advice for firefighters Wear self-contained breathing apparatus and protective clothing.
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Use full personal protective equipment. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  No special measures required.
- Disposal contaminated material as waste according to item 13.
- 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.

7 Handling and storage

- Handling:

- Precautions for safe handling
  Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
  Keep container tightly sealed in cool, well-ventilated area. Keep away from direct sunlight and sources of ignition.
- Storage:

- Requirements to be met by storerooms and receptacles: Store at -20°C
- Information about storage in one common storage facility: Not required
- Further information about storage conditions: Shipping at room temperature if less than 2 weeks.
- 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: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:

- General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Avoid contact with the eyes and skin. Avoid contact with the eyes. Avoid contact with the eyes and skin.
### Protection of hands:
The glove material has to be impermeable and resistant to the product/substance/preparation. Due to missing tests no recommendation to the glove material can be given for the product/substance/preparation/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.

#### Penetration time of glove material
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

### Eye protection:
Tightly sealed goggles

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### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Powder</td>
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<tr>
<td>Color: White to off-white</td>
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<tr>
<td>Odor: uncharacteristic</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
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</thead>
<tbody>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: Undetermined.</td>
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</tbody>
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<thead>
<tr>
<th>Flash point:</th>
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</thead>
<tbody>
<tr>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

| Flammability (solid, gaseous): Not applicable.        |

| Decomposition temperature: Not determined.            |

<table>
<thead>
<tr>
<th>Auto igniting:</th>
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<tbody>
<tr>
<td>Not determined.</td>
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</table>

| Danger of explosion: Product does not present an explosion hazard. |

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<thead>
<tr>
<th>Explosion limits:</th>
</tr>
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<tbody>
<tr>
<td>Lower: Not determined.</td>
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<tr>
<td>Upper: Not determined.</td>
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<tr>
<th>Vapor pressure:</th>
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<tbody>
<tr>
<td>Not determined.</td>
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<tr>
<th>Density:</th>
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<tbody>
<tr>
<td>Not determined.</td>
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<tr>
<td>Relative density: Not determined.</td>
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<tr>
<td>Vapor density: Not determined.</td>
</tr>
<tr>
<td>Evaporation rate: Not determined.</td>
</tr>
</tbody>
</table>

(Contd. on page 5)
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**: Not determined.
- **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**: Strong acids/alkalis, strong oxidising/reducing agents.
- **Hazardous decomposition products**: Poisonous gases/vapors.

11 Toxicological information

- **Information on toxicological effects**: Not determined.
- **Acute toxicity**: Not determined.
- **Primary irritant effect**: Not determined.
- **on the skin**: Classified based on available data. For more details, see section 2.
- **on the eye**: Classified based on available data. For more details, see section 2.
- **Sensitization**: Classified based on available data. For more details, see section 2.
- **Additional toxicological information**: No further relevant information available.
- **Carcinogenic categories**: Not determined.
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**: No further relevant information available.
- **Aquatic toxicity**: Not determined.
- **Persistence and degradability**: Not determined.
- **Behavior in environmental systems**: Not determined.
- **Bioaccumulative potential**: Not determined.
- **Mobility in soil**: Not determined.
- **Additional ecological information**: Not determined.
- **General notes**: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**: Not determined.
- **PBT**: Not applicable.
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- 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, IMDG, IATA: not regulated
- UN proper shipping name
  - DOT, IMDG, IATA: not regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: not regulated
- Packing group
  - DOT, IMDG, IATA: not regulated
- Environmental hazards:
  - Not applicable.
- 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): Substance is not listed.
  - Section 313 (Specific toxic chemical listings): Substance is not listed.
  - TSCA (Toxic Substances Control Act): Substance is not listed.
  - Hazardous Air Pollutants: Substance is not listed.
  - Proposition 65
    - Chemicals known to cause cancer: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for females: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for males: Substance is not listed.
    - Chemicals known to cause developmental toxicity: Substance is not listed.
  - Carcinogenic categories
  - EPA (Environmental Protection Agency) Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
Trade name: XAV939

- NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- GHS label elements
  The substance is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  GHS06  GHS07
- Signal word Danger
- Hazard statements
  Toxic if swallowed.
  Causes serious eye irritation.
- Precautionary statements
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Wear eye protection / face protection.
  If swallowed: Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  Rinse mouth.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  If eye irritation persists: Get medical advice/attention.
  Store locked up.
  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 07/03/2019
- Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Acute Tox. 3: Acute toxicity – Category 3
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A