1 Identification

- **Product identifier**
  - **Trade name:** Soybean Trypsin Inhibitor
  - **Article number:** 03-048-1
  - **CAS Number:** 9035-81-8
  - **EC number:** 232-906-9

- **Application of the substance / the mixture**
  In a serum-free culture environment, the cells must be separated by rapid centrifugation or by utilizing trypsin inhibitors such as Soybean Trypsin Inhibitor. Soybean trypsin inhibitor is a single polypeptide that forms a stable, stoichiometric, enzymically inactive complex with trypsin, thereby reducing the availability of trypsin by somewhat binding chymotrypsin.

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Biological Industries Israel Beit Haemek Ltd.
    BEIT HAEMEK 2311500
    ISRAEL
    Michal.badihi@sartorius.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**
  The substance is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **Classification system:**
    - **NFPA ratings (scale 0 - 4)**
      - Health = 0
      - Fire = 0
      - Reactivity = 0
    - **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.
    - **vPoB:** Not applicable.
3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  9035-81-8 Trypsin Inhibitor 0.5%
- Identification number(s)
- EC number: 232-906-9

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: Wash mouth with water if person is conscious and seek medical advice.
  - 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: Wear self-contained respirator protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Use personal protective equipment. Clean contaminated surfaces thoroughly.
- Environmental precautions: Use personal protective equipment. Clean contaminated surfaces thoroughly.
- Methods and material for containment and cleaning up:
  Absorb liquid components with liquid-binding material.
- 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 No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
Trade name: Soybean Trypsin Inhibitor

- Conditions for safe storage, including any incompatibilities
  
  Storage:
  - Requirements to be met by storerooms and receptacles: -10°C to -20°C
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Not required.
  - 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:
     The usual precautionary measures for handling chemicals should be followed.
   - Breathing equipment: Not required.
   - 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.
   - 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.
   - Eye protection: Safety glasses

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Solution
  - Color: Colorless
  - Odor: uncharacteristic
  - Odor threshold: Not determined.
- pH-value: Not applicable.
- Change in condition
  - Melting point/Melting range: 0 °C (32 °F)
  - Boiling point/Boiling range: 100 °C (212 °F)
- Flash point: Not applicable.
Trade name: Soybean Trypsin Inhibitor

- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **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 at 20 °C (68 °F):** 1 g/cm³ (8.345 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic at 20 °C (68 °F): 0.952 mPas
  - Kinematic: Not determined.
  - Water: >98.0 %
  - VOC content: 0.00 %
- **Solids content:** <2.0 %
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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:**
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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### Trade name: Soybean Trypsin Inhibitor

The substance is not subject to classification.

- **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:** Very toxic to aquatic life.
  - **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:** 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:** No special recommendation
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **UN-Number** not regulated
  - **DOT, ADN, IMDG, IATA**
- **UN proper shipping name** not regulated
  - **DOT, ADN, IMDG, IATA**
- **Transport hazard class(es)** not regulated
  - **DOT, ADN, IMDG, IATA**
  - **Class**
- **Packing group** not regulated
  - **DOT, IMDG, IATA**

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Trade name: Soybean Trypsin Inhibitor

- 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): ACTIVE
  - Hazardous Air Pollutants
    - 7647-01-0 hydrogen chloride
  - 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.
    - Chemicals known to cause developmental toxicity: None of the ingredients is listed.

- 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 Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void

(Contd. on page 7)
### Trade name: Soybean Trypsin Inhibitor

- **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:** 03/31/2020
- **Abbreviations and acronyms:**
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - 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