1 Identification

- **Product identifier**
  - **Trade name:** 3,3',5-Triiodo-L-thyronine salt
  - **Article number:** SM-0011-0500
  - **CAS Number:** 55-06-1
  - **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**
  - GHS08 Health hazard
  - STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  - GHS07
  - Acute Tox. 4 H302 Harmful if swallowed.
  - Acute Tox. 4 H312 Harmful in contact with skin.
  - Acute Tox. 4 H332 Harmful if inhaled.
  - 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**
    - GHS07
    - GHS08

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - 3,3',5-Triiodo-L-thyronine sodium salt

- **Hazard statements**
  - Harmful if swallowed, in contact with skin or if inhaled.
  - Causes serious eye irritation.
  - May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)
Precautionary statements
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If on skin: Wash with plenty of water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Get medical advice/attention if you feel unwell.
Specific treatment (see on this label).
Rinse mouth.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Get medical advice/attention.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)
Health = 3
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
55-06-1 3,3',5-Triiodo-L-thyronine sodium salt
Additional information: Formula C15H11I3NNaO4

4 First-aid measures
Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
· 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: Immediately call a doctor.
· 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.
· Protective equipment: Mouth respiratory protective device.

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:
  Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
· 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
  Thorough dedusting.
  Ensure good ventilation/exhaustion at the workplace.
· 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:
  Store in the dark.
  Shipping at room temperature if less than 2 weeks.
Trade name: 3,3',5-Triiodo-L-thyronine salt

- **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.
- **Breathing equipment:**
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

#### Protection of hands:
- **Protective gloves**
  - 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:**
  - **Tightly sealed goggles**

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Solid
    - **Color:** Off-white to gray
Trade name: 3,3',5-Triiodo-L-thyronine salt

- Odor: uncharacteristic
- Odor threshold: Not determined.
- pH-value: Not applicable.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- Flash point: 302 °C (575.6 °F)
- Flammability (solid, gaseous): Product is not flammable.
- 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: Not applicable.
- Density: Not determined.
- Relative density: Not determined.
- Vapor density: Not applicable.
- Evaporation rate: Not applicable.
- Solubility in / Miscibility with Water at 37 °C (98.6 °F): 3.958 mg/l
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
  - VOC content: 0.00 %
- Solids content: 100.0 %
- 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:
  - When heated to decomposition it emits toxic fumes of nitroxides
- 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
  · Acute toxicity:
  · Primary irritant effect:
    · 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:

· Carcinogenic categories
  · 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
  · 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:
      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
    · 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, 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
    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
    Substance is not listed.

  - 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
    Substance is not listed.

  - EPA (Environmental Protection Agency)
    Substance is not listed.
Safety Data Sheet  
acc. to OSHA HCS

Trade name: 3,3',5-Triiodo-L-thyronine salt

- TLV (Threshold Limit Value established by ACGIH)
  Substance is not listed.

- 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
  ![GHS07](image)
  ![GHS08](image)

- Signal word Warning

- Hazard-determining components of labeling:
  3,3',5-Triiodo-L-thyronine sodium salt

- Hazard statements
  Harmful if swallowed, in contact with skin or if inhaled.
  Causes serious eye irritation.
  May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements
  Do not breathe dust/fume/gas/mist/vapors/spray.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Call a poison center/doctor if you feel unwell.
  If on skin: Wash with plenty of water.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Get medical advice/attention if you feel unwell.
  Specific treatment (see on this label).
  Rinse mouth.
  Take off contaminated clothing and wash it before reuse.
  If eye irritation persists: Get medical advice/attention.
  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
Trade name: 3,3',5-Triiodo-L-thyronine salt

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
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2