1- Product and Company Identification

Product Name	**TSA + LECITHIN+ POLYSORBATE 80 (IRRADIATED)**
Reference number	**CD-011/L PD399/303T/303M**
Manufacturer	**Hy-Laboratories Ltd.** Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474

2- Composition, Information on Ingredients

Composition:
Enzymatic Digest of Casein 15.0 g/L
Enzymatic Digest of Soybean Meal 5.0 g/L
Sodium Chloride 5.0 g/L
Lecithin 0.7 g/L
Tween 80 5.0 g/L
Agar 20.5 g/L
No components need to be disclosed according to the applicable regulations.

Ingredients Name	Cas #
Enzymatic Digest of Soybean Meal	91079-46-8
Lecithin	8002-43-5
Polysorbate 80	9005-65-6
AGAR, BACTERIOLOG	9002-18-0
Sodium Chloride	7647-14-5

3- Hazard Specifications

Hazard Statements: No Significant Hazard
Other hazards: Contains material(s) which may be harmful if swallowed. Dust may be irritating if inhaled.

This product contains no hazardous constituents, or the concentration of all chemical constituents are below the refulatory threshold limits described by 29 CFR 1910.1200 (USA), WHMIS (Canada) and 91/155/EEC and 93/112/EC (Europe).

4- First Aid Measures

Inhalation Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell

Most important symptoms and effects, both acute and delayed
Inhalation May cause irritation to respiratory system.
Eye contact May cause irritation to eyes.
Skin contact May cause irritation to skin.
Ingestion Ingestion may cause nausea and vomiting.

Indication of any immediate medical attention and special treatment needed
Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

5- Fire Fighting Measures

5.1 **Extinguishing media**
Use extinguishing media appropriate to the surrounding fire conditions.

5.2. **Special hazards arising from the substance or mixture**
Avoid formation of dust. Do not allow undiluted product to be released to ground water, water course or sewage system.

5.3**. Advice for firefighters**
Do not breathe dust or vapor. Wear self-contained breathing apparatus and chemical-protective clothing

6- Accidental Release Measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust. Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.

6.2**. Environmental precautions**
Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.

6.3. **Methods and material for containment and cleaning up**
Avoid formation of dust. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

6.4. **Reference to other sections**
See Section(s) 2, 8, and 13 for further information.

7- Handling and Storage

7.1. **Precautions for safe handling**
Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing. Read the entire label and follow all use directions, restrictions, and precautions.

7.2. **Conditions for safe storage, including any incompatibilities**
Store at temperatures between 2 °C and 8 °C. Store in correctly labelled containers. Keep container tightly closed. Protect from moisture. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.

7.3. **Specific end use(s)**
See Section(s) 1.2 for further information. Further information Refer to product label and/or package insert for additional information

8- Exposure Controls, Personal Protection

8.1. **Control parameters**
No occupational exposure limits known.

8.2. **Exposure controls**
Appropriate engineering controls
Ensure adequate ventilation of the working area.
Individual protection measures
Use as appropriate: Protective equipment.
Eye / face protection Use as appropriate: Suitable eye protection.
Skin protection - Hand protection Use as appropriate: Chemical-resistant gloves made of any waterproof material. Wash the outside of gloves before removing them.
Skin protection - Other Use as appropriate: Protective clothing. Wash contaminated clothing, separately

from other laundry, with detergent and water before reuse.
Respiratory protection in case of insufficient ventilation, wear suitable respiratory equipment. Dust may be irritating if inhaled.
Occupational exposure controls Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.\

Further information Refer to product label for additional PPE requirements and recommendations. Follow label instructions

9- Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

- State Powder
- Color Beige
- Odor Characteristic
- Odor threshold No data available
- pH 7.1 - 7.5
- Melting point No data available
- Freezing Point No data available
- Boiling point No data available
- Flash point No data available
- Evaporation rate No data available
- Flammability limits No data available
- Vapor pressure No data available
- Vapor density No data available
- Relative density No data available
- Partition coefficient No data available
- Autoignition temperature No data available
- Viscosity Not applicable.
- Explosive properties Not applicable.
- Oxidizing properties No data available
- Solubility Soluble in water

9.2. Other information

- Conductivity No data available
- Surface tension Not applicable.
- Gas group Not applicable.
- Benzene Content No data available
- Lead content No data available
- VOC (Volatile organic compounds) No data available

10- Stability and Reactivity

10.1. **Reactivity:** Stable under normal conditions.
10.2. **Chemical stability** Stable under normal conditions.
10.3. **Possibility of hazardous reactions**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
10.4. **Conditions to avoid** Keep away from extreme temperatures. Protect from moisture.
10.5. **Incompatible materials** No data available.
10.6. **Hazardous decomposition products** Carbon oxides.

11- Toxicological Information

11.1. Information on toxicological effects:
Acute toxicity Based on available data, the classification criteria are not met.
Skin corrosion/irritation May cause irritation to skin.

Serious eye damage/irritation May cause irritation to eyes.
Respiratory or skin sensitization May cause allergic reactions in susceptible people.
Germ cell mutagenicity No mutagenic effects reported.
Carcinogenicity No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity No teratogenic effects reported.
STOT-single exposure May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure No Significant Hazard.
Aspiration hazard No Significant Hazard.
Repeated or prolonged exposure Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures See Section(s) 3 for further information.
11.1.3. Hazard Information See Section(s) 2 and 3 for further information.
11.1.4. Toxicological information No data available
11.1.5. Hazard Class See Section(s) 2 and 14 for further information.
11.1.6. Classification Criteria Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
11.1.7. Information on likely routes of exposure Eye contact. Skin contact. Inhalation. Ingestion.
11.1.8. Symptoms related to the physical, chemical and toxicological characteristics See Section(s) 4.2 for further information
11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure See Section(s) 4.2 for further information.
11.1.10. Interactive effects No data available.
11.1.11. **Absence of specific data** <1% of this mixture consists of ingredients of unknown acute toxicity
11.1.12**. Mixture versus substance** information See Section(s) 3 for further information.
11.1.13. **Other information** No data available.

12- Ecological Information

12.1. Toxicity
No data available
12.2. Persistence and degradability
No data is available on this product.
12.3. Bioaccumulative potential
No data is available on this product.
Partition coefficient
Tryptic Soy Agar with Lecithin and Tween 80
No data available
12.4. Mobility in soil
No data is available on this product.
12.5. Results of PBT and vPvB assessment
No data is available on this product.
12.6. Other adverse effects
Specific test data for the substance or mixture is not available.
Further information
Keep out of lakes, ponds, or streams

13- Disposal Information

13.1. Waste treatment methods
Dispose of in compliance with all local and national regulations. Follow label instructions.
Disposal methods
Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface

water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.

If empty: Do not reuse this container. Place in trash or offer for recycling, if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused

Disposal of packaging

product down any indoor or outdoor drain.

Further information

Refer to product label and/or package insert for additional information. Follow label instructions

14- Transport Information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The product is not classified as dangerous for carriage

15- Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication. Chemical

Inventories/Right-to-Know Lists:

--International--.

Basel Convention (Hazardous Waste): Not applicable.

Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels.

Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.

Mercosur Agreement: Applicable.

Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.

The Rotterdam Convention: This product contains no hazardous substances at or above published reporting levels.

The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.

--Asia and the ASEAN Nations--.

Catalog of Hazardous Chemicals (China): This product contains no hazardous substances at or above published reporting levels.

Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.

Air Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.
Chemical Substances Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.
Industrial Safety and Health Act, Dangerous Substances (Japan): This product contains no hazardous substances at or above published reporting levels.
Poisonous and Deleterious Substances Act (Japan): This product contains no hazardous substances at or above published reporting levels.
Soil Contamination Countermeasures Act (Japan): This product contains no hazardous substances at or above published reporting levels.
Water Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.
Chemical Substances Subject to Permission (Korea): This product contains no hazardous substances at or above published reporting levels.
Restricted or Prohibited Substances (Korea): This product contains no hazardous substances at or above published reporting levels.
Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This product contains no hazardous substances at or above published reporting levels.
Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969):, All ingredients listed or exempt., No restrictions.
Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.
Hazardous Substances Act (Thailand): This product contains no hazardous substances at or above published reporting levels.
Law on Chemicals (Vietnam): This product contains no hazardous substances at or above published reporting levels.
--Australia and New Zealand--.
Australian Dangerous Goods Code: Not applicable.
Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.
New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.
--European Union (EU) and the United Kingdom (UK)--.
Authorization List (Annex XIV of REACH): This material contains no reportable components.
Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels, No restrictions.
Article 95 of the Biocidal Products Regulation (BPR): Not applicable.
--North America--.
Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.
Toxic Substances Control Act (TSCA): This product contains one or more components that are not listed or exempt from listing on the inventory administered by the governing country, (<0.5%).
Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.
New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.
Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.

Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels. California Prop 65: This product does not contain reportable substances at >0.0001% concentration.

16- Other Information

Other information

Acronyms ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR).
CAS No.: Chemical Abstracts Service.
CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia).
FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act.
GHS: Globally Harmonized System.
HCS 2012: Hazard Communication Standard (2012 revision).
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods.
LD: Lethal dose.
OEL: Occupational exposure limit.
OSHA: U.S. Occupational Safety and Health Administration.
PEL: Permissible Exposure Limit.
REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals.
STOT: Specific Target Organ Toxicity.
SVHC: Substance of very high concern.
US DOT: United States Department of Transportation.
VOC: Volatile Organic Compound.
WEL: Workplace Exposure Limit.

For In-Vitro use only. The information in this MSDS is based on current and reliable sources but does not purport to be all inclusive and shall be used only as a guide.