

 **Bioil-S(Enhance)[®]****1. PRODUCT & SUPPLIER IDENTIFICATION**

- 1.1.** Name of the Chemical Substance: Protein Hydrolyzate + Fatty Acids Omega 3, 6 and 9
1.2. Supplier: AminoCompany Fertilizers and Chemicals SA.
1.3. Address: Bernardino 1,990, Parque Industrial San Andrés. Puerto Montt, Chile.
1.4. Phone: +56 / 65 / 2488200.
1.5. Emergency Phone: +56 / 65 / 2488207

2. COMPOSITION/INFORMATION REGARDING INGREDIENTS

- 2.1.** Chemical Name: Protein Hydrolyzate + Fatty Acids Omega 3, 6 and 9.
2.2. Chemical Formula: Protein Hydrolyzate + Fatty Acids Omega 3, 6 and 9.
2.3. CAS N°: N/A
2.4. UN N°: Not classified

3. IDENTIFICATION OF RISKS

- 3.1.** NCh 2190 Label: Not classified as a hazardous substance
3.2. Risk classification of the chemical substance: Classification IV, a product that is not normally hazardous.
3.3. Risks for people's health:
3.3.1. Effects of an acute over-exposure (short term): Product practically non-toxic
3.3.2. Inhalation: Not expected to be a problem
3.3.3. Contact with the skin: No irritation or dermatitis
3.3.4. Contact with the eyes: Slight ocular irritation
3.3.5. Swallowing: Possible nausea, vomiting, diarrhea and abdominal pains
3.3.6. Effects of a chronic over-exposure (long term): No adverse effects observed
3.3.7. Medical conditions that will worsen as a result of exposure to the product: Dermatitis, skin affections.
3.4. Environmental risks: None; it is biodegradable. Avoid spilling into water courses.
3.5. Special risks concerning the product: There are none if used normally.

4. FIRST AID

- 4.1.** After inhaling: Minimal risks. As a result of an over-exposure, transfer the patient out into the open air. Could cause nausea; if so, seek medical help.
4.2. After contact with the skin: Wash immediately with abundant running water and remove all contaminated clothing under the shower.
4.3. After contact with the eyes: Wash IMMEDIATELY with abundant running water for 5 minutes. Seek medical advice if irritation persists.
4.4. After swallowing: If the person is conscious, he/she must drink abundant water. Do NOT cause vomiting. Seek medical attention immediately.
4.5. Note for the doctor: Aspiration could cause chemical pneumonitis in the lungs.
4.6. Antidotes: There are no specific antidotes. Conduct symptomatic treatment.

5. FIRE-FIGHTING MEASURES

- 5.1.** Risk of fire or explosion: Low risk of flammability.
5.2. Special safety equipment: Use respiratory protection equipment, helmet, gloves, safety boots and thick heat-resistant clothing.
5.3. Extinction: Pulverized water, foam, dry powder, carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

6.1. Emergency measures to be taken if there is a spill

- 6.1.1.** For persons: Isolate the sector affected. Remove all persons not related to the emergency. Avoid inhaling or contact with the skin or eyes. Use suitable gloves and protection for the eyes and face.
- 6.1.2.** For the environment: Avoid contaminating water courses with raw product and contain the spill with inert substances (sand, earth).

6.2. Cleanup/recovery methods

- 6.2.1.** Recovery: Use absorbent material.
- 6.2.2.** Neutralization: Isolate the area affected and, if possible, contain the spill with inert substances.
- 6.2.3.** Eliminating waste: Sweep and pick up any containers clearly identified and then transfer to an authorized landfill for this type of substance in accordance with orders from the appropriate authority.

7. HANDLING AND STORAGE

7.1. Handling

7.1.1. Technical recommendations

- 7.1.1.1.** Exposure to workers: Ventilation is recommended. Normal measures should be taken regarding handling chemical products.
- 7.1.1.2.** Prevention of fire or explosion: Keep all containers far from sources of ignition or naked flames that could heat the product up. Avoid smoking. Using mobile phones or plugs that are not explosion-proof or any element that could cause sparks.
- 7.1.1.3.** Explosion: Non-explosive product.
- 7.1.2.** Precautions when handling:
- 7.1.2.1.** General and local ventilation: Ventilation must be according to Supreme Decree 594.
- 7.1.2.2.** Measures for preventing the generation of aerosols and powder: Proper ventilation. If the floor is swept, do so using a damp inert substance and keep all waste in containers clearly identified.

7.1.3. Specific safe handling

- 7.1.3.1.** Materials or substances incompatible with the product: All of those that are flammable or reactive to water or alkaline. Extreme pH substances.

7.2. Storage

- 7.2.1.** Technical aspects: in an authorized warehouse and inside containers clearly identified.
- 7.2.2.** Storage conditions:
- 7.2.2.1.** Recommended: Fresh and airy location with good ventilation. Products must be stored on racks away from the floor.
- 7.2.2.2.** Not recommended: Storage together with food or medicines used by animals or humans or any other that comes into direct contact with people or animals.

7.2.3. Packaging

- 7.2.3.1.** Recommended: Sealed containers with visible labels
- 7.2.3.2.** Not recommended: Those that appear to be broken or leaking, with labels in a bad condition or no labels at all.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1. Control of explosions

- 8.1.1.** Measures for reducing an explosion: Use of personal protection gear is recommended.
- 8.1.1.1.** Control parameters:
- 8.1.1.1.1.** Weighted limit permissible (LPP): NA.
- 8.1.1.1.2.** Absolute limit permissible (LPA): NA.
- 8.1.1.1.3.** Temporal limit permissible (LPT): NA.
- 8.1.1.1.4.** Olfactometric threshold: NA.
- 8.1.1.1.5.** Biological standards: stress.
- 8.1.1.1.6.** Monitoring procedure: Presence of stress in gastric content and bronchial secretions.
- 8.1.1.2.** Personal protection gear recommended for:
- 8.1.1.2.1.** Respiratory protection: facial protection.
- 8.1.1.2.2.** Protecting the hands: Neoprene or latex gloves.
- 8.1.1.2.3.** Protecting the eyes: Goggles
- 8.1.1.2.4.** Protecting the skin and body: Head-to-toe suit of disposable paper
- 8.1.1.2.5.** Other protection gear: Rubber boots
- 8.1.1.3.** Hygiene: Do not eat, smoke or use the bathrooms whilst handling. Wash completely after handling.
- 8.1.1.4.** Re-entry and when not to be used: N/A.

8.2. Hazards as a result of product exposure

- 8.2.1. Large amounts of product:** Handle following all of the safety measures applicable to the product and personal protection gear already indicated.
- 8.2.2. Large concentrations of product:** Handle following all of the safety measures applicable to the product and personal protection gear already indicated.
- 8.2.3. Exposure to temperatures:** The product is stable under normal temperature and pressure conditions. This product is not flammable or explosive.
- 8.2.4. Exposure to pressures:** The product is stable under normal temperature and pressure conditions. This product is not flammable or explosive.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Physical:**

- 9.1.1. Physical State:** Homogeneous oily liquid
- 9.1.2. Appearance and smell:** Brown; smelling of fish.
- 9.1.3. Concentration:** 950 g/L (Emulsionable Concentrate)
- 9.1.4. pH:** 4 - 4.5
- 9.1.5. Ignition point:** Not flammable
- 9.1.6. Flash point (LEL – UEL):** Not flammable
- 9.1.7. Decomposition temperature:** Thermally stable below 130°C
- 9.1.8. Self-ignition temperature:** N/A
- 9.1.9. Density at 20°C:** 0.92 g/ml
- 9.2. Chemical:**
- 9.2.1. Solubility in water or other solvents:** Negligible
- 9.2.2. Corrosivity:** Not corrosive
- 9.2.3. Volatility index:** Not volatile
- 9.2.4. Radioactivity:** Not radioactive
- 9.2.5. Foam persistence:** 5ml of foam (10 seconds after 12 minutes)
- 9.2.6. Speed flame spreads:** N/A
- 9.2.7. Viscosity:** 76.9cSt
- 9.2.8. Combustion heat:** N/A

10. STABILITY AND REACTIVITY

- 10.1. Stability:** Stable for 24 hours.
- 10.2. Conditions to be avoided:** Extreme heat and sources of high energy ignition must be avoided.
- 10.3. Incompatibility:** Corrosive, with extreme below 3 and above 10 as well as strong oxidants.
- 10.4. Hazardous products upon decomposition:** N/A. This product does not decompose at room temperature.
- 10.5. Hazardous products upon combustion:** Smoke.
- 10.6. Hazardous Polymerization:** Does not occur.

11. TOXICOLOGICAL INFORMATION

- 11.1. Acute Oral Toxicity (DL50):** Rats >5,000 mg/kg
- 11.2. Acute Oral Toxicity (DL 50):** Bees 62.4 µg/bee
- 11.3. Acute Oral Toxicity (DL 50):** Birds >2,000 mg/kg
- 11.4. Acute Toxicity (CL 50):** Fish 33.44 mg/lit after 96 hours
- 11.5. Acute Dermal Toxicity (DL 50):** Rats >5,000 mg/kg
- 11.6. Acute Inhalator Toxicity (CL 50):** Rats >9.8 mg/Liter Air.
- 11.7. Acute Dermal Irritation/Corrosion (0.5 ml):** Rabbits. Not irritable or corrosive.
- 11.8. Acute Ocular Irritation/Corrosion (0.1 ml):** Rabbits. Level 4 irritation.
- 11.9. Dermal sensitization: Guinea pigs.** No sensitization signs.

12. ECOLOGICAL INFORMATION

- 12.1. Instability:** When released into the atmosphere, the product is absorbed into sediment and soil.
- 12.2. Presence/Degradability:** It is biodegradable.
- 12.3. Bio-accumulation:** Very unlikely, because the product has a very low solubility in water and, therefore, bio-availability of aquatic organisms.
- 12.4. Effects on the environment:** The compound degrades after micro-biological action. No negative effects are expected.
- 12.5. Eco-toxicity:** There is no present toxicity for the ecosystem.

13. CONSIDERATIONS REGARDING FINAL DISPOSAL

- 13.1. Methods recommended and approved under Chilean regulations for disposing of the product, its waste and residue:** The product is not listed as hazardous. It does not have any corrosive, reactive or self-ignition characteristics. It neutralizes with inert substances (sand, earth, sawdust).
- 13.2. Methods recommended and approved under Chilean regulation for eliminating contaminated containers/packaging:** Wash the containers three times, render them useless and send them where they can be shredded and then sent to an authorized landfill or recycled.

14. INFORMATION CONCERNING TRANSPORT

- 14.1.** Distinctives applicable according to NCh 2190: N/A.
- 14.2.** UN N°: It does not classify as a hazardous substance in accordance with transport regulations.

15. REGULATORY INFORMATION

- 15.1. National rules applicable:** Decree 298 Transport of hazardous substances. NCh 382, NCh 2190.
- 15.2. International rules applicable:** IATA, IMDG
- 15.3. Labeled:** Caution.

16. OTHER INFORMATION

The data found in these Safety Sheets were obtained from reliable sources. The opinions expressed in this form are those of trained professionals. The information provided in it is what is commonly known at present. Bearing in mind that using this information and the products are beyond the control of the supplier, the company will not bear any responsibility whatsoever regarding this. The user is under the obligation to determine the conditions for safely using the product.