



## 1. PRODUCT AND COMPANY IDENTIFICATION

**Trade name:** BIOPROTECTOR

**Company:** LAGE y Cia. S.A.

Camino Carrasco 6948  
CP. 11500, Montevideo, Uruguay

**Telephone:** 2600-2714

**Fax:** 2601-3654

**e-mail:** lage@lageycia.com

**Webpage:** www.lageycia.com

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

### COMPOSITION

**Active ingredients:** Poly (1-vinyl-2-pyrrolidinone), Homopolymer of vinyl pyrrolidinone 0.83 %

**Inert ingredients:** Sucrose and water q.s. 100 % (p/p) – 1000 g/l

**Product use:** Adjuvant for seed treatment

### INFORMATION ON INGREDIENTS

**Molecular formula:** 
$$\left[ \begin{array}{c} \text{H} \\ | \\ -\text{CH}_2-\text{C} \begin{array}{l} \text{O} \\ \text{N}=\text{O} \end{array} \end{array} \right]_x$$

**CAS No.:** 9003-39-8

**Molecular weight:** 40000 - 80000

## 3. HAZARDS IDENTIFICATION

**Potential health effects:** Slightly hazardous in case of skin contact (irritant), contact with eyes (irritant), inhalation.

**CARCINOGENIC EFFECTS:** (Not classified as a carcinogen in humans by IARC)

**Chronic health effects:** MUTAGENIC EFFECTS: Not available  
TERATOGENIC EFFECTS: Not available

No known effects associated with long term exposure, does not aggravate medical conditions

## 4. FIRST AID

**Ingestion:** In case of ingestion do not induce vomiting. If the patient is unconscious do not induce vomiting. Get medical attention if symptoms occur.

**Inhalation:** In case of inhalation remove person from contaminated area and take to a well ventilated place.

**Contact with skin:** Remove contaminated clothing and wash skin with plenty water and soap.

**Contact with eyes:** Control and remove contact lenses. In case of contact, rinse eyes immediately with plenty clean water for 15 minutes, holding the eyelids open. Use cool water.

## 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Sprayed water, carbon dioxide, extinguishing powder, foam, sand. Do not apply water on the source.

**Resulting products:** Carbon dioxide, carbon monoxide, nitrogen oxide.

**Precautions and equipment:** Keep persons away from fire sources. Do not enter a confined space where there is fire with this product without using protective gear to fight against chemical fires, such as mask with combined filter.

## 6. ACCIDENTAL RELEASE MEASURES

- Do not smoke, drink or eat during the decontamination or cleaning process.
- Keep only personnel authorized to perform decontamination in the area.
- Keep domestic animals out of the contaminated area.
- Contain spill with sand, sawdust, dirt or other inert absorbent elements.
- Once controlled, collect the contaminated absorbent elements into labeled closed containers for disposal in authorized locations.

## 7. HANDLING AND STORAGE

### HANDLING

- Keep out of the reach of children, disabled persons and animals.
- Avoid ingestion and contact with skin and eyes. Irritant to skin and eyes.
- Do not eat, drink or smoke while handling, preparing and applying the product. Use gloves, boots, mask, goggles and appropriate clothing while handling, preparing and applying the product.
- After application or handling, wash hands, arms, face and other body parts exposed to the product with plenty water and soap.
- Wash protecting gear after each use.

## STORAGE

- Store in its original container, tightly closed, in an enclosed, cool and dry place.
- Keep out of sunlight during storage.
- Avoid extreme temperatures (below 0°C/32°F and above 40°C/104°F) during storage.
- Do not store with food, household utensils or clothing.
- Prevent access to the product to any person not authorized to handle the same.

## 8. PERSONAL PROTECTION MEASURES

**Eyes:** Goggles

**Face:** Protection mask

**Body:** Cotton coverall

**Feet:** Rubber boots

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid

**Formulation:** Soluble concentrate

**Color:** Colorless - blue

**Odor:** Characteristic

**pH:** 4.5-7.0

**Density:** 1.20 g/ml

**Flammability:** Nonflammable

**Explosiveness:** Non-explosive

**Vapor pressure:** Not applicable

**Solubility:** Highly soluble

## 10. STABILITY AND REACTIVITY

Stable under normal storage conditions, store in a cool and dry place.

## 11. TOXICOLOGICAL INFORMATION

LD50 Oral acute rat 40000 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available BOD5 AND COD: Not available

**Biodegradation products:** No hazardous products from its short term degradation. However, degradation products may be produced in the long term.

**Toxicity of biodegradation products:** The product itself and its degradation products are not toxic. Special considerations regarding biodegradation products: Not available

## 13. DISPOSAL CONSIDERATIONS

Once empty, "triple rinse" containers and pour the resulting liquid in

the sprayer tank. Puncture empty containers to prevent reuse. Deliver containers to an authorized facility for destruction.

## 14. TRANSPORT INFORMATION

Not regulated.

## 15. REGULATORY INFORMATION

Registered with the Ministry of Livestock, Agriculture and Fisheries:  
GENERAL ADMINISTRATION OF AGRICULTURAL SERVICES Decree  
149/07

## 16. OTHER INFORMATION

**Disclaimer:** The information, data and recommendations contained in this SDS are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date of revision. The SDS serves as description of the products in regard to necessary safety measures. No warranty, expressed or implied, regarding the product described in this SDS shall be created or inferred by any statement in this SDS.