

# MATERIAL SAFETY DATA SHEET

## SODIUM ALGINATE

**MSDS Ref. No.:** MSDS-001  
**Approved date:** 03.05.2019  
**Version:** 6.0

This document has been prepared to meet the requirements of the EC Directive, 2001/58/EC.

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** PRONOVA UP LVM  
 PRONOVA UP LVG  
 PRONOVA UP VLVG  
 PRONOVA UP VLVM  
 PRONOVA UP MVM  
 PRONOVA UP MVG  
 PRONOVA UP OligoG  
 PRONOVA SLG 20  
 PRONOVA SLM 20  
 PRONOVA SLG 100  
 PRONOVA SLM 100

**CHEMICAL FAMILY:** Polysaccharide  
**SYNONYMS:** Sodium alginate, Algin (INCI name)  
**GENERAL USE:** Viscosifier, film-forming agent, gel-forming agent; for use in drug delivery compositions and devices, cell encapsulation and cell therapy applications, tissue engineering and regenerative medicine or other medical devices

### MANUFACTURER

NovaMatrix  
 DuPont Nutrition Norge AS  
 Industriveien 33  
 1337 Sandvika, NORWAY

### EMERGENCY TELEPHONE NUMBER

+47 67 81 55 00 (Sandvika, Norway)  
 (303) 595-9048 (Medical – U.S. – Call Collect)

For leak, fire, spill, or accident emergencies, call:  
 (800) 424-9300 (CHEMTREC – U.S.A. & Canada)  
 (703) 527-3887 (CHEMTREC – All Other Countries)

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

- White to off-white, odorless, free-flowing powder or pad (lyophilized).
- Powder becomes slippery when wet.
- Accumulation of overhead settled dust may form explosive concentrations in air when disturbed and dispersed.

**POTENTIAL HEALTH EFFECTS:** No significant health effect expected.



### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Wt. %	EC No.	EC Class
Sodium Alginate	9005-38-3	100	none	Not classified as hazardous

### 4. FIRST AID MEASURES

**EYES:** Irrigate with clean water. Get medical attention if irritation occurs and persists.

**SKIN:** Wash with soap and water. Get medical attention if irritation occurs and persists.

**INGESTION:** Drink 1 to 2 glasses of water. If any discomfort persists, obtain medical attention.

**INHALATION:** Remove to fresh air. If any breathing difficulty or discomfort occurs and persist, obtain medical attention.

**NOTES TO MEDICAL DOCTOR:** This product has low oral and inhalation toxicity. It is not a skin sensitizer and is non-irritating to the skin and eyes. It is expected to have low dermal toxicity. Aspiration or inhalation of this product could cause chemical pneumonitis. Treatment is symptomatic and supportive.

### 5. FIRE FIGHTING MEASUREMENTS

**EXTINGUISHING MEDIA:** Water, foam, dry chemical, CO<sub>2</sub>.

**FIRE / EXPLOSION HAZARDS:** As with most organic materials, excessive accumulation of dust on overhead structures may produce explosive concentrations when disturbed and dispersed by a small explosion that shakes down accumulated dust and causes, momentarily, an ignitable concentration.

**FIRE FIGHTING PROCEDURES:** None. Treat as "Class A" fire. Once ignited, the products tends to smoulder.

**FLAMMABLE LIMITS:** Auto Ignition temperature is above 200°C.

### 6. ACCIDENTAL RELEASE MEASUREMENTS

**RELEASE NOTES:** In case material is released or spilled: Sweep or vacuum. Note that an extreme slip hazard can develop if material spilled on the floor becomes wet.

### 7. HANDLING AND STORAGE

**HANDLING AND STORAGE:** To protect quality of product, store in a tight container in a cool dry place.



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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE LIMITS:** N/A

**ENGINEERING CONTROLS:** Use local exhaust sufficient enough to remove airborne dust.

### PERSONAL PROTECTION EQUIPMENT

**EYES AND FACE:** Goggles recommended in heavy dust concentrations.

**RESPIRATORY:** A dust respirator should be worn if handling results in generation that exceeds the TLV, or if dust becomes annoying.

**PROTECTIVE CLOTHING:** No special clothing is required.

**GLOVES:** Not necessary.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>ODOR:</b>	Odorless.
<b>APPEARANCE:</b>	White to off-white powder or pad (lyophilized).
<b>AUTOIGNITION TEMPERATURE:</b>	> 200 °C (>392 °F)
<b>BOILING POINT:</b>	Not volatile
<b>MELTING POINT:</b>	Not volatile
<b>FLASH POINT:</b>	N/A (Product will burn when in contact with a flame. Self-Extinguishes when ignition source is removed)
<b>EVAPORATION RATE:</b>	N/A
<b>PERCENT VOLATILE:</b>	N/A
<b>pH:</b>	5.5 to 8.5 in 1% solution
<b>SOLUBILITY IN WATER:</b>	Slowly soluble, forming a viscous solution
<b>VAPOR DENSITY:</b>	Not available
<b>VAPOR PRESSURE:</b>	Not available

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## 10. STABILITY AND REACTIVITY

<b>CONDITIONS TO AVOID:</b>	Strong oxidizing agents, high temperature and high humidity levels.
<b>STABILITY:</b>	Stable.
<b>POLYMERIZATION:</b>	Will not occur.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	None



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## 11. TOXICOLOGICAL INFORMATION

**EYE EFFECT:** May cause irritation in some individuals.

**SKIN EFFECT:** None.

**DERMAL LD 50:** No data available.

**ORAL LD 50:** Essentially non-toxic; LD 50 (rats) is greater than 5g/kg.

**INHALATION LC 50:** 4.72 mg/l (1h) (rats). Excessive inhalation of dust can impede respiration due to hygroscopic properties. Nuisance dust: 10mg/m<sup>3</sup> total dust.

**SENSITIZATION:** Non sensitization

**ACUTE EFFECT FROM OVEREXPOSURE:** This product is expected to have low oral and inhalation toxicity. It is expected to be minimally irritating to the eyes and non-irritating to the skin. Ingestion of large quantities of alginates may cause intestinal obstruction. Aspiration or inhalation of this product could cause chemical pneumonitis.

**CHRONIC EFFECT FROM OVEREXPOSURE:** No data available for the formulation. Sodium alginate showed no adverse effects in chronic studies when administered in the diet (5 – 15 %). The Joint WHO/FAO Expert Committee on Food Additives (JECFA) has granted an Acceptable Daily Intake (ADI) of “not specified” (no upper limit), the best possible classification for food additives (JECFA, 39<sup>th</sup> session of 23/12 February 1992). No further data are available.

**CARCINOGENICITY:**

**NTP:** Not listed.  
**IARC:** Not listed.  
**OSHA:** Not listed.  
**OTHER:** ACGHI: Not listed.

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Sodium Alginate is biodegradable and is not expected to have any significant environmental effects.

**ECOTOXICOLOGICAL INFORMATION:** No data available, however, no significant effect on aquatic organisms are expected.

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:**



NOTE: Handle as a non-hazard material.

BOD (5) : Approximately 300mg O<sub>2</sub>g.

COD : Approximately 660mg O<sub>2</sub>g.

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## 14. TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION (DOT)

**MARINE POLLUTANT:** None.

**ADDITIONAL INFORMATION:** Not listed in title 49 of CFR as a hazardous material.

### INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

**ADDITIONAL INFORMATION:** Not regulated.

### ADR – EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD

**ADDITIONAL INFORMATION:** Not regulated.

### INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

**ADDITIONAL INFORMATION:** Not regulated.

**OTHER INFORMATION:** N/A

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## 15. REGULATORY INFORMATION

### UNITED STATES:

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 , APPENDIX A):** Not listed.

**SECTION 311 HAZARD CATEGORIES (40 CFR 370):** Not applicable

**SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):** The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10 000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000lbs.: None

**SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):** This product does not contain any toxic chemicals subject to the reporting requirements of Section 313, Title III of the SARA (Superfund Amendments and Reauthorization Act) of 1986.

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)**



**CERCLA DESIGNATION AND REPORTABLE QUANTITIES (RQ) (40 CFR 302,4):** Not listed.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA INVENTORY STATUS (40 CFR 710):** Listed (sodium alginate)

## **CANADA**

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):**

Domestic Substance List: Listed (sodium alginate)

## **E NUMBERS:**

E 401 (Sodium Alginate)

## **INTERNATIONAL LISTINGS:**

Sodium Alginate

Australia (AICS): Listed

China: Listed

Japan (ENCS): (8)-237

Korea: KE-00492

Philippines (PICCS): Listed

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## **16. OTHER INFORMATION**

The information given in this MSDS is based on present knowledge of the product and is intended to describe the product from a safety point of view. The MSDS is not a chemical specification. The customer is responsible for the correct use of the product.

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