

MATERIAL SAFETY DATA SHEET

Scogin® LV Alginate

FMC BioPolymer

MSDS Ref. No.: 2203500

Date Approved: 06/23/2004

Revision No.: 2

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Scogin® LV Alginate
CHEMICAL FAMILY: Polysaccharide
MOLECULAR FORMULA: $(C_6H_9O_7)_n$
SYNONYMS: Algin (INCI name), alginic acid, sodium salt
GENERAL USE: Industrial - Paper

MANUFACTURER

FMC BioPolymer
1735 Market Street
Philadelphia, PA 19103
(800) 526-3649 (General Information)

FMC Europe NV
Avenue Mounier 83
1200 Brussels, Belgium
+32 2 / 775 8311 (General Information - Brussels)
(800) 526-3649 (General Information - U.S.A.-
Phila)

EMERGENCY TELEPHONE NUMBERS

(800) 424-9300 (CHEMTREC - U.S.)
(202) 483-7616 (CHEMTREC - All Other Countries)
(303) 595-9048 (Medical - U.S. - Call Collect)
+47 / 32 30 3500 (Plant - Drammen, Norway)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- Yellowish to light-brown, almost odorless, free-flowing powder.
- 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 effects expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt. %	EC No.	EC Class
Sodium alginate	9005-38-3		None	Not classified as hazardous

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water.

INGESTION: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, 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 MEASURES

EXTINGUISHING MEDIA: Water, foam, dry chemical, CO₂

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. Product will burn when in contact with a flame, but self-extinguishes when ignition source is removed.

FIRE FIGHTING PROCEDURES: None. Treat as "Class A" fire. Once ignited, the product tends to smolder.

FLAMMABLE LIMITS: Not applicable

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Powder becomes slippery when wet. Maintain good housekeeping practices to minimize accumulation of settled dust, especially on overhead surfaces. Sweep up the spilled material and dispose of in accordance with the waste disposal method outlined in Section 13, "Disposal Considerations".

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Use local exhaust or general dilution ventilation to control exposure to dust. Always use safe lifting techniques when manually moving containers, especially when handling containers weighing more than 50 pounds (22.7 kg). To protect quality, store in a tight container in a cool, dry place. Avoid exposure to excessive heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust, which is sufficient enough to remove airborne dust.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Whenever airborne dust concentrations are high, appropriate protective eyewear, such as mono-goggles, should be worn to prevent eye contact.

RESPIRATORY: Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH/MSHA, EU CEN or comparable certification organization to protect them against airborne dust.

PROTECTIVE CLOTHING: No special clothing is required.

GLOVES: No special gloves are required.

COMMENTS:

EXPOSURE LIMITS:

Particulates Not Otherwise Classified (PNOC):
ACGIH/TWA
10 mg/m³ (inhalable particulate)
3 mg/m³ (respirable particulate)

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Almost odorless
APPEARANCE:	Yellowish to light-brown, free-flowing powder
AUTOIGNITION TEMPERATURE:	> 200 °C (> 392 °F)
BOILING POINT:	None volatile
EVAPORATION RATE:	(Butyl acetate = 1) Not applicable
FLASH POINT:	Not applicable
MELTING POINT:	Not available
PERCENT VOLATILE:	Not available
pH:	6.5 - 8.5 (1% aqueous solution)
SOLUBILITY IN WATER:	Slowly soluble, forming a viscous, colloidal solution
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Strong oxidizing agents, high temperatures and high humidity levels.
STABILITY:	Stable
POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	None known

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Non-irritating (rabbit)

SKIN EFFECTS: Non-irritating (rabbit)

DERMAL LD₅₀: No data available for the product.

ORAL LD₅₀: > 5,000 mg/kg (rat)

INHALATION LC₅₀: 4.72 mg/l (1 h) (rat)

SENSITIZATION: (Skin) Non-sensitizing (guinea pig)

ACUTE EFFECTS FROM OVEREXPOSURE: 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. Large quantities of this product may cause intestinal obstruction. Aspiration or inhalation could cause chemical pneumonitis.

CHRONIC EFFECTS FROM OVEREXPOSURE: Sodium alginate showed no adverse effects in chronic studies when administered in the diet (5 - 15%). No further data are available. 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, 39th session of 23/12 February 1992).

CARCINOGENICITY:

NTP: Not listed
IARC: Not listed
OSHA: Not listed
OTHER: ACGIH: Not listed

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Sodium alginate is biodegradable, and is not expected to have significant environmental effects.

ECOTOXICOLOGICAL INFORMATION: No data available for the product; however, no significant effects on aquatic organisms are expected.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: No special disposal methods are suggested. It is the user's responsibility to comply with all applicable local, state, and federal laws, rules, regulations and standards.

NOTE: Handle as a non-hazardous material

BOD(5) : approximately 400 mg O₂/g

COD : approximately 650 mg O₂/g

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

MARINE POLLUTANT: None

ADDITIONAL INFORMATION: Not listed in Title 49 of the U.S. Code of Federal Regulations as a hazardous material.
Stabilizer / emulsifier; water soluble, dry

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:

Canada (TDG) : Not applicable

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 10,000 lbs.:

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 & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):

Not listed

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA INVENTORY STATUS (40 CFR 710):

Listed

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Domestic Substance List: Listed

E NUMBERS:

E 401(sodium alginate)

INTERNATIONAL LISTINGS

Australia (AICS): Listed
China: Listed
Japan (ENCS): (8)-237
Korea: KE-00492
Philippines (PICCS): Listed

ADDITIONAL REGULATORY INFORMATION:

U.S.A.: This product is permitted for use in food under Title 21 of the Code of Federal Regulations. Refer to Regulations for specific information on use in foods.

EU: This product is permitted for use in food under the Miscellaneous Additives Directive. Refer to Directive for specific information on use in foods.

16. OTHER INFORMATION

NFPA

Health	2
Flammability	1
Reactivity	0
Special	None

No special requirements

NFPA = National Fire Protection Association

Degree of Hazard Code:

4 = Extreme

3 = High

2 = Moderate

1 = Slight

0 = Insignificant

REVISION SUMMARY:

This MSDS replaces Revision #1, dated January 21, 2003.

Changes in information are as follows:

New Format, as well as:

Section 15 (Regulatory Information)

Section 16 (Other Information)

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