

MATERIAL SAFETY DATA SHEET

Viscarin® GP 109F Carrageenan

FMC BioPolymer

MSDS Ref. No.: 1253
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Revision No.: 3

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: Viscarin® GP 109F Carrageenan
CHEMICAL FAMILY: Polysaccharides
SYNONYMS: Carrageenan; Chondrus Crispus (Carrageenan)(INCI name), Carrageenin, Irish moss extract, Condrous extract
GENERAL USE: Foodstuff application

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)

EMERGENCY TELEPHONE NUMBERS

(207) 594-3200 (FMC Plant - Rockland, ME)

(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:

- Dry powder with a slight marine odor.
- 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 hazard expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Carrageenan	9000-07-1		232-524-2	Not classified

4. FIRST AID MEASURES

EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

SKIN: Wash with plenty of soap and water.

INGESTION: Drink plenty 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, contact a medical doctor.

NOTES TO MEDICAL DOCTOR: This product has low oral, dermal and inhalation toxicity. It is non-irritating to the eyes and skin, and non-sensitizing to the skin. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water, carbon dioxide.

FIRE / EXPLOSION HAZARDS: As with any fine particulate matter, the accumulation of excessive dust on overhead structures may form explosive concentrations when disturbed and dispersed.

FIRE FIGHTING PROCEDURES: For fires involving this material, do not enter any enclosed or confined fire space without wearing full protective clothing and self-contained breathing apparatus (SCBA) approved for firefighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.

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 dry place. Avoid exposure to excessive heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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:

ADDITIONAL 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:	Slight marine
APPEARANCE:	Dry powder
AUTOIGNITION TEMPERATURE:	Not applicable
BOILING POINT:	Not applicable
COEFFICIENT OF OIL / WATER:	(Octanol/Water) Not applicable
EVAPORATION RATE:	(Butyl acetate = 1) Not applicable
FLASH POINT:	Not applicable
FREEZING POINT:	Not applicable
MELTING POINT:	Not applicable
pH:	7.0 - 10.5 (1.5% solution)
SOLUBILITY IN WATER:	(% by weight) 10% maximum
SPECIFIC GRAVITY:	(H ₂ O = 1) Approximately 1 g/cc
VAPOR PRESSURE:	Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	None known
STABILITY:	Stable
HAZARDOUS DECOMPOSITION PRODUCTS:	Will produce oxides of sulfur on burning.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Non-irritating (rabbit)

SKIN EFFECTS: Non-irritating (rabbit)

DERMAL LD₅₀: > 2,000 mg/kg (rabbit)

ORAL LD₅₀: > 5,000 mg/kg (rat)

INHALATION LC₅₀: > 0.93 mg/l (4 h) (rat) Maximum attainable concentration - zero mortality

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

ACUTE EFFECTS FROM OVEREXPOSURE: This product has low oral, dermal and inhalation toxicity. It is non-irritating to the eyes and skin, and non-sensitizing to the skin. No significant acute toxicological effects are expected.

CHRONIC EFFECTS FROM OVEREXPOSURE: Long term and lifetime feeding studies with carrageenan in laboratory animals were negative, as were reproductive outcomes and mutagenicity studies.

CARCINOGENICITY:

NTP:	Not listed
IARC:	Not listed
OSHA:	Not listed
OTHER:	Not Listed (ACGIH)

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available for the product. This product is not expected to have significant environmental effects.

ECOTOXICOLOGICAL INFORMATION: Carrageenan is an extract of seaweeds of the class Rhodophyceae (red seaweeds), and is not expected to have significant toxicity to aquatic organisms.

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.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME:	Stabilizer / emulsifier; water soluble, dry
MARINE POLLUTANT:	None
ADDITIONAL INFORMATION:	Not listed in Title 49 of the U.S. Code of Federal Regulations as a hazardous material.

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

ADDITIONAL INFORMATION: Not applicable

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

ADDITIONAL INFORMATION: Not applicable

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 applicable

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 applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)**TSCA INVENTORY STATUS (40 CFR 710):**

Listed

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

Not a controlled product under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Domestic Substance List: Listed

E NUMBERS:

E 407

INTERNATIONAL LISTINGS

Carrageenan
Australia (AICS): Listed
China: Listed
Philippines (PICCS): Listed

HAZARD, RISK AND SAFETY PHRASE DESCRIPTIONS:

EC Symbols: (Not classified as hazardous)

EC Risk Phrases: (Not classified as hazardous)

EC Safety Phrases: (Not classified as hazardous)

16. OTHER INFORMATION**NFPA**

Health	1
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 #2, dated November 03, 2004.

Changes in information are as follows:

Section 1 (Product and Company Identification)

Section 8 (Exposure Controls / Personal Protection)

Section 15 (Regulatory Information)

Section 16 (Other Information)

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