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

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ac-Di-Sol® SD-711 Croscarmellose Sodium
CHEMICAL NAME: Croscarmellose Sodium
CHEMICAL FAMILY: Cellulose Derivative
SYNONYMS: Cross-linked Sodium Carboxymethylcellulose
GENERAL USE: Disintegrant

MANUFACTURER
FMC BioPolymer
1735 Market Street
Philadelphia, PA 19103
(800) 526-3649 (General Information)
msdsinfo@fmc.com (Email - General Information)

FMC Europe NV
Avenue Mounier 83
1200 Brussels, Belgium
353 21 435 4133 (General Information - Cork, Ireland)

EMERGENCY TELEPHONE NUMBERS
(302) 451-0100 (FMC Plant - Newark, Delaware)
(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 - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
• White, free-flowing, odorless powder.
• Accumulation of overhead settled dust may form explosive concentrations in air when disturbed and dispersed.

POTENTIAL HEALTH EFFECTS: Minimally irritating to the eyes and skin.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Wt.%</th>
<th>EC No.</th>
<th>EC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internally Cross-linked Sodium Carboxymethylcellulose</td>
<td>74811-65-7</td>
<td>None</td>
<td>Not classified</td>
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</tbody>
</table>

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. Get medical attention if irritation occurs and persists.

**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, obtain medical attention.

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

5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Water

**FIRE / EXPLOSION HAZARDS:** Accumulation of overhead settled dust may form explosive concentrations in air when disturbed and dispersed. The propagation of flame through air-floated dusts takes place usually following a small explosion which shakes down accumulated dust.

**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: 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” below.

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 shipping containers weighing more than 50 pounds (22.7 kg). To protect quality, store in a tight container in a dry place, at room temperature (approximately 25°C). Pallets should be stacked in a stable manner. Maintain adequate clearance from structural members and sprinklers; NFPA and U.S. OSHA state a minimum of 18 inches (45.7 cm) clearance shall be maintained between the top of storage and the ceiling sprinkler deflectors.

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, workers should wear respirators that are approved for protection against airborne dust (by U.S. NIOSH/MSHA or comparable certification organization).

PROTECTIVE CLOTHING: No special clothing is required.

GLOVES: No special gloves are required.

COMMENTS:

EXPOSURE LIMITS:

Particulates Not Otherwise Classified (PNOC):
10 mg/m³ (inhalable particulate)
3 mg/m³ (respirable particulate)
9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless
APPEARANCE: White, free-flowing powder
BOILING POINT: Not applicable
COEFFICIENT OF OIL / WATER: Not available
EVAPORATION RATE: (Butyl acetate = 1) Not applicable
FAT SOLUBILITY: Not available
FLASH POINT: Not applicable
MELTING POINT: Not applicable
OXIDIZING PROPERTIES: Not applicable
PERCENT VOLATILE: Not more than 6% water, by weight
pH: (In solution) 5.0 - 7.0 (1% solids dispersion)
SOLUBILITY IN WATER: 1 - 10% (% by weight)
SPECIFIC GRAVITY: (H₂O = 1) Bulk density, 0.4 g/cc
VAPOR DENSITY: (Air = 1) Not applicable
VAPOR PRESSURE: Not applicable

COMMENTS:
EXPLOSIVE PROPERTIES: Not available

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known
STABILITY: Stable
HAZARDOUS DECOMPOSITION PRODUCTS: None known.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Minimally irritating (rabbit)
SKIN EFFECTS: Minimally irritating (rabbit) Primary Irritation Index = 0.1/8.0
DERMAL LD₅₀: > 2 g/kg (rabbit)
**ORAL LD<sub>50</sub>:** > 5,050 mg/kg (rat)

**INHALATION LC<sub>50</sub>:** > 0.13 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 and dermal toxicity, and moderate inhalation toxicity. It is minimally irritating to the skin and eyes. No significant hazard in animal toxicity tests.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** This product was negative (non-mutagenic) in the Ames test and did not induce chromosome aberrations in rats. A 90-day animal study showed no adverse effects when administered in the diet. No adverse human effects known.

**CARCINOGENICITY:**

- **NTP:** Not listed
- **IARC:** Not listed
- **OSHA:** Not listed
- **OTHER:** (ACGIH) Not listed

### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** No data available.

**ECOTOXICOLOGICAL INFORMATION:** No data available.

### 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:** National Motor Freight Classification Item 156200, plastic materials, powder.
15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 311 HAZARD CATEGORIES (40 CFR 370):
None

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.
TSCA (TOXIC SUBSTANCE CONTROL ACT)
TSCA INVENTORY STATUS (40 CFR 710):
Listed (as carboxymethyl cellulose)

CANADA
WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):
Not a controlled product under the Canadian Workplace Hazardous Materials Information System (WHMIS).

E NUMBERS:
E 468 (cross-linked sodium carboxymethylcellulose)

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

<table>
<thead>
<tr>
<th>Health</th>
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<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Special</td>
<td>None</td>
</tr>
</tbody>
</table>

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 #10, dated August 10, 2007.
Changes in information are as follows:
Section 1 (Product and Company Identification)
Section 16 (Other Information)

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