MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: **G270**  EFFECTIVE DATE: 1 January 2011

CHEMICAL FAMILY: Polyacrylate salt

CHEMICAL NAME: Sodium polyacrylate

COMPANY IDENTIFICATION:
Crystals
10317 Vigilante Trail
Converse TX 78109 USA
1-888-659-2710

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
<th>OSHA HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>9003-04-7</td>
<td>Sodium Polyacrylate</td>
<td>Not Available</td>
<td>Post Treated – Trade Secret</td>
</tr>
</tbody>
</table>

**Component Information / Information on Non-Hazardous Components**

The components of this product are not regulated as hazardous under 29 CFR and 49 CFR. However, the manufacturer recognizes the potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust. See Sections 8, 11, 14, and 15 for further regulatory information.

SECTION 3 – HAZARDS IDENTIFICATION

**Emergency Overview**

Sodium polyacrylate is a white, granular, odorless polymer that yields a gel-like material with the addition of water. It is insoluble in water and causes extremely slippery conditions when wet. Although not regulated as a hazardous material, the respirable dust is potential respiratory tract irritant. The manufacturer recommends an eight-hour exposure limit of 0.05 mg/m³.

**Potential Health Effects: Eyes**

Dust may cause burning, drying, itching, and other discomfort, resulting in reddening of the eyes.

**Potential Health Effects: Skin**

Exposure to the dust, such as in manufacturing, may aggravate existing skin conditions due to drying effect.

**Potential Health Effects: Ingestion**

Although not a likely route of entry, tests have shown that polyacrylate absorbents are non-toxic if ingested. However, as in any instance of non-food consumption, seek medical attention in the event of any adverse symptoms.

**Potential Health Effects: Inhalation**

Exposure to respirable dust may cause respiratory tract and lung irritation and may aggravate existing respiratory conditions. Refer to Section 6 for important containment procedures.

**HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard
SECTION 4 – FIRST AID MEASURES

First Aid: Eyes
Immediately flush with plenty of water. Remove particles remaining under the eyelids. Get medical attention if irritation persists.

First Aid: Skin
Remove polyacrylate absorbent dust from skin using soap and water.

First Aid: Ingestion
Non-toxic by ingestion. However, if adverse symptoms appear, seek medical attention.

First Aid: Inhalation
If inhaled, move to source of fresh air. Seek medical attention if symptoms persist.

SECTION 5 – FIRE-FIGHTING MEASURES

General Fire Hazards
No recognized fire hazards associated with the finished product.

Fire and Explosive Properties

<table>
<thead>
<tr>
<th>Flammability Classification</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>NA</td>
</tr>
<tr>
<td>Flammable Limits - Upper</td>
<td>NE</td>
</tr>
<tr>
<td>Flammable Limits - Lower</td>
<td>NE</td>
</tr>
</tbody>
</table>

Hazardous Combustion Products
None known.

Extinguishing Media
Dry chemical, foam, carbon dioxide, and water fog. Extremely slippery conditions are created if spilled product comes in contact with water.

Fire Fighting Instructions
Firefighters should wear full protective clothing including self-contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Containment Procedures
Avoid respirable dust. Do not sweep product. When possible, vacuum the product using a HEPA filter (mandatory when using a vacuum). If no vacuum is available, moisten the product, scoop up and place into an approved disposable container.

Clean up procedures
Use caution after contact of product with water, as extremely slippery conditions will result. Residuals maybe flushed with water into the drain for normal wastewater treatment. This is a non-hazardous waste suitable for disposal in an approved solid waste landfill.

Evacuation Procedures
None required.

Special Procedures
Avoid respirable dust inhalation during clean up. Wear appropriate respirator.
SECTION 7 – HANDLING AND STORAGE

Handling
Handle as an eye and respiratory tract irritant.

Storage
Store in a dry, closed container.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines

A: General Product Information
This product is not regulated as a hazardous material. However, the manufacturer recognizes the potential for respiratory tract irritation and recommends an eight-hour exposure limit of 0.05 mg/m³.

B: Component Exposure Limits
No information available.

Engineering Controls
Provide local exhaust ventilation to maintain worker exposure to less than 0.05 mg/m³ over an eight-hour period.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipments: Eyes/Face
Wear safety glasses with side shields or goggles.

Personal Protective Equipments: Skin
Use impervious gloves when handling the product in the manufacturing environment.

Personal Protective Equipments: Respiratory
Wear respirator with a high efficiency filter if particulate concentration in the work area exceeds 0.05 mg/m³ over an eight hour time period.

Personal Protective Equipments: General
Obey reasonable safety precautions and practice good housekeeping. Wash thoroughly after handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Odor</td>
<td>White Granular Powder, no odor</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 – 6.5 (1% in water)</td>
</tr>
<tr>
<td>Specific Gravity (Bulk Density)</td>
<td>0.4 – 0.7 g/ml</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt; 10 mm Hg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>NE</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt; 390 °F</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Evaporation Rate (%)</td>
<td>&lt; 1.0</td>
</tr>
</tbody>
</table>
SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability
This material is chemically stable under normal and anticipated storage and handling conditions.

Chemical Stability: Conditions to Avoid
None

Incompatibility
None

Hazardous Decomposition Products
Decomposition above 200 ºC

Hazardous Polymerization
Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity
A: General Product Information:

Acute oral toxicity: LD$_{50}$ rat
Dose: > 5000 mg/kg
Method: Limit Test

Acute dermal toxicity: LD$_{50}$ rat
Dose: > 2000 mg/kg
Method: Limit Test

Skin irritation: Rabbit
Method: OECD Nr. 404
Very slight irritant

Eye irritation: Rabbit
Method: OECD Nr. 405
Very slight irritant

Sensitization: Guinea pig
Method: OECD Nr. 406
Result: 0/20
No sensitization

B: Acute Toxicity – LD$_{50}$/LC$_{50}$

Sodium polyacrylate (9003-04-7)
LD$_{50}$: Oral LD50 Rat: > 40g/kg

Carcinogenicity:
Component Carcinogenicity
No information is available.

Chronic Toxicity
Chronic inhalation exposure to rates for a lifetime (two years) using sodium polyacrylate that had been micronized to a respirable particle size (less than 10 microns) produced non-specific inflammation and chronic lung injury at 0.2 mg/m³ and 0.8 mg/m³. Also, at 0.8 mg/m³, tumors were seen in some test animals. In the absence of chronic inflammation, tumors are not expected. There were no adverse effects detected at 0.05 mg/m³.

Mutagenicity
Sodium polyacrylate had no effect in mutagenicity tests.
SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

A: General Product Information
Composted polyacrylate absorbents are non-toxic to aquatic or terrestrial organisms at predicted exposure levels.

B: Ecotoxicity

Biodegradability: Method: OECD Nr. 302B
Practically no degradation.

Physico-chemical removability: The product is easy to eliminate in water-treatment plants due to its insolubility.

Ciliate toxicity: Tetrahymena pyriformis
EC$_{50}$ > 6000 mg/l.
Method: Erlanger Ciliate Tests (Prof Graf)

Bacterial toxicity: Ps. Putida
EC$_{50}$ > 6000 mg/l
24 hr exposure

Fish toxicity: Leuciscus idus
LC$_{50}$ > 5,500 m/l
24 hr. exposure

Fish toxicity: Brachydanio rerio
LC$_{50}$ > 4,000 mg/l
96 hour exposure

Environmental Fate
Polyacrylate absorbents are relatively inert in aerobic and anaerobic conditions. They are immobile in landfills and soil systems (> 90% retention), with the mobile fraction showing biodegradability. They are also compatible with incineration of municipal solid waste. Incidental down-the-drain disposal of small quantities of polyacrylic absorbents will not affect the performance of wastewater treatment systems.

SECTION 13 – DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions

A: General Product Information
This product is a non-hazardous waste material suitable for approved solid waste landfills.

B: Component Waste Numbers
No EPA Waste Numbers are applicable for this product’s components.

Disposal Instructions
Dispose of in accordance with Local, State, and Federal Regulations.

SECTION 14 – TRANSPORTATION INFORMATION

International Transportation Regulations
This product is not transport regulated.
SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

A: General Product Information
   This product is not federally regulated as a hazardous material.

B: Clean Air Act
   No information is available.

C: Component Analysis
   No information available.

State Regulations

A: General Product Information
   This product is not regulated by any state as a hazardous material.

B. Component Analysis – State
   None of this product’s components are listed on the state lists from CA, FL, MA, NJ, or PA.

Component Analysis – WHMIS IDL
   No components are listed in the WHMIS IDL.

Component Analysis – Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>CAN</th>
<th>EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Polyacrylate</td>
<td>9003-04-7</td>
<td>Yes</td>
<td>DSL</td>
<td>No</td>
</tr>
</tbody>
</table>

SECTION 16 – OTHER INFORMATION

Revision Information:
Revision Date: NA
Supersedes Revision Dated: NA

Reason for Revision: NA
   Key: N/A – Not Applicable    NE – Not Established

IMPORTANT: The following supercedes Buyer’s documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach or warranty, strict liability, tort or contract arising in connection with the product(s). Buyer’s sole remedy and Seller’s sole liability for any claims shall be Buyer’s purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended condition of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.