

# Safety Data Sheet

## \*\*\* Section 1 – Chemical Product and Company Identification \*\*\*

### Product Name: GR 221

Chemical Name: Sodium Polyacrylate, Cross-linked

### Manufacturer Information

|  |   |
|--|---|
| Stewart Superabsorbents LLC<br>1954 Main Avenue SE<br>Hickory, NC 28602<br>USA | Non-Emergency # 828-855-9316<br><br><b>Emergency # (828) 855-9316</b> |
|--|---|

### General Comments

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire exposure, or accident involving the product. All non-emergency questions should be directed to the customer service number.

## \*\*\* Section 2 – 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 a potential respiratory tract irritant. The manufacturer recommends an eight-hour exposure limit of 0.05 mg/m<sup>3</sup>.

### 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, test results 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. The statement in Section 6 is important when cleaning up spilled product: "Avoid respirable dust. Do not sweep product. Vacuum up the product (using a HEPA filter is mandatory) when possible. If no vacuum is available, moisten down the product and scoop up and place into an approved disposable container".

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

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## \*\*\* Section 3 – Composition / Information on Ingredients \*\*\*

|                    |                                  |
|--------------------|----------------------------------|
| CAS #<br>9003-04-7 | Component<br>Sodium polyacrylate |
|--------------------|----------------------------------|

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

The components of this product are not regulated as hazardous under 29CFR and 49CFR. 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 4 – First Aid Measures \*\*\*

#### **First Aid: Eyes**

Immediately flush eyes with plenty of water for at least 15 minutes.

#### **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**

Fine dust can form explosive mixtures with air. Take measures against electrostatic charge.

**Upper Flammable Limit (UFL):** Not Established

**Lower Flammable Limit (LFL):** Not Established

**Method Used:** None

**Flash Point:** None

**Flammability Classification:** None

#### **Hazardous Combustion Products**

None known.

#### **Extinguishing Media**

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

#### **Fire Fighting Equipment/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

### \*\*\* Section 6 – Accidental Release Measures \*\*\*

#### **Containment Procedures**

Avoid respirable dust. Do not sweep product. Vacuum up the product (using a HEPA filter is mandatory) when possible. If no vacuum is available, moisten down the product and 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 may be 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.

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## \*\*\* Section 7 – Handling and Storage \*\*\*

### Handling Procedures

Handle as an eye and respiratory tract irritant.

### Storage Procedures

Store in a dry, closed container.

## \*\*\* Section 8 – Exposure Controls/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/m<sup>3</sup>.

#### B: Component Exposure Limits

No information is available.

### Engineering Controls

Provide local exhaust ventilation to maintain exposure to less than 0.05 mg/m<sup>3</sup> over an eight-hour period.

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields or goggles.

#### Personal Protective Equipment: Skin

Use impervious gloves when handling the product in the manufacturing environment.

#### Personal Protective Equipment: Respiratory

Wear respirator with a high efficiency filter if particulate concentrations in the work area exceed 0.05 mg/m<sup>3</sup> over an eight-hour period.

#### Personal Protective Equipment: General

Obey reasonable safety precautions and practice good housekeeping. Wash thoroughly after handling.

## \*\*\* Section 9 – Physical & Chemical Properties \*\*\*

|                                     |                        |                          |                         |
|-------------------------------------|------------------------|--------------------------|-------------------------|
| <b>Appearance:</b>                  | White granular powder. | <b>Odor:</b>             | None                    |
| <b>Physical State:</b>              | Solid                  | <b>pH:</b>               | 5.7 – 7.0 (1% in water) |
| <b>Vapor Pressure:</b>              | <10 mm Hg              | <b>Vapor Density:</b>    | Not established         |
| <b>Boiling Point:</b>               | Not applicable         | <b>Melting Point:</b>    | >390 degrees F          |
| <b>Solubility (H<sub>2</sub>O):</b> | Not soluble            | <b>Specific Gravity:</b> | 0.5-0.8 g/ml            |
| <b>Evaporation Rate:</b>            | <1.0                   | <b>Flash Point:</b>      | Not applicable          |

## \*\*\* Section 10 – Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

The product is stable.

### Chemical Stability: Conditions to Avoid

None

### Incompatibility

None

### Hazardous Decomposition

None known.

### Hazardous Polymerization

Will not occur.

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## \*\*\* Section 11 – Toxicological Information \*\*\*

### Acute and Chronic Toxicity

#### A: General Product Information

Acute and Chronic Toxicity

A: General Product Information

Acute inhalation of respirable dust may cause irritation of the upper respiratory tract and lungs.

B: Acute Toxicity - LD50/LC50

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  
Not irritant

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

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

### Carcinogenicity

#### Component Carcinogenicity

No information is available.

### Chronic Toxicity

Chronic inhalation exposure to rats 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/m<sup>3</sup> and 0.8 mg/m<sup>3</sup>. Also, at 0.8 mg/m<sup>3</sup>, 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/m<sup>3</sup>.

### Mutagenicity

Sodium polyacrylate had no effect in mutagenicity tests.

## \*\*\* Section 12 – Ecological Information \*\*\*

### Ecotoxicity

#### A: General Product Information

Ecotoxicity

A: General Product Information

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Composted polyacrylate absorbents are nontoxic to aquatic or terrestrial organisms at predicted exposure levels from current application rates.

### 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

EC50>6,000 mg/l

Method: Erlanger Ciliate tests (Prof Graf).

#### Bacterial toxicity:

Ps. Putida

EC>6,000 mg/l

Exposure time: 24 hours

#### Fish toxicity:

Leuciscus idus

LC50.5,500 m/l

Exposure time: 24 hours

#### Fish toxicity:

Brachydanio rerio

LC50>4,000 mg/l

Exposure time: 96 hours

### 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 waster 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 regulated as a hazardous material by the United States (DOT) or Canadian (TDG) transportation regulations.

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## \*\*\* 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 is 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 listed in Section 2 are on the state lists from CA, FL, MA, MN, MJ, or PA.

#### Component Analysis – WHMIS IDL.

No components are listed in the WHMIS IDL.

WHMIS Classification – Not Controlled

The SDS has been prepared to meet the requirements of the Canadian Controlled Products Regulation and must follow the class.

### RoHS 2 Analysis

This product complies with the requirements of the European Union's RoHS2 Directive, formally known as "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment."

### REACH SVHC

This product contains no Substances of Very High Concern (SVHC) as identified by the European Chemicals Agency (ECHA) under the European Union's REACH regulation 1907/2006/EC.

### Component Analysis – Inventory

| Component           | CAS#      | TSCA | CAN | EEC |
|---------------------|-----------|------|-----|-----|
| Sodium polyacrylate | 9003-04-7 | Yes  | DSL | No  |

## \*\*\* Section 16 – Other Information \*\*\*

### Other Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

### SDS History

This is a new SDS.

This is the end of SDS