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MATERIAL SAFETY DATA SHEET

Product name : super absorbent polymer (SAP)

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Section 1. Identification of the substance

Commodity name: SAP (super absorbent polymer)

Molecular formula: (C₃H₃NaO₂)_n

Grade: KW-S, KW-B1, KW-B2, KW-A1, KW-H50, KW-H60, KW-K21.

Chemical name: Polyacrylic acid sodium salt, sodium polyacrylate

Content: >90%

CAS No. 9003-04-7

Emergency telephone number:

CHEMTREC:+86-371-65336567

Section 2. Composition / information on ingredients

(Not Specifications)

Component Information/Information on Non-Hazardous Components

The components of this product are not regulated as hazardous. However, the potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust is recognized. See sections below for 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 caused extremely slippery conditions when wet. Although not regulated as a hazardous material, the respirable dust is potential respiratory tract irritant. An eight-hour exposure limit of 0.05 mg/m³ is recommended.

Potential Health Effects: eyes

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

Potential Health Effects: skins

Exposure to the dust, such as in manufacturing, may aggravate existing skins 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.

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 with 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. medical attention immediately.

Section 5. Fire - fighting measures

General fire hazards :

No recognized fire hazards associated with the finished product.

Fire and explosive properties:

Flammability classification: None

Flash point: NA

Flammable limits –upper : NE

--lower: NE

Extinguish 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.

Section 6. Accidental release measures

Containment procedures:

Sweep or vacuum material when possible and shovel into a waste 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.

Section 7. Handling and storage

Handling:

Handle as an eye and respiratory tract irritant

Storage :

Store in a dry, closed container

Section 8. Exposure controls / personal protection

Exposure Guideline :

Engineering controls :

Providing local exhaust ventilation to maintain worker exposure to less than 0.05mg/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 0.05g/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

Appearance/Odor : White granular powder, no odor

Specific gravity (bulk density) : 0.62-0.74g/ml

Melting point : 330°Cmin.

Solubility in water : swell in water

Auto ignition temperature : 400°Cmin

Section 10. Stability and reactivity

Stability :

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

Conditions to avoid :

Store protected from moisture , keep away from heat and sources of ignition.

Hazardous decomposition products:

Decomposition above 200°C

Hazardous polymerization :

Will not occur

Section 11. Toxicological information

Acute toxicity:

Rat oral LD50 : 40000mg/kg min.

Section 12. Ecological information

A: General Product Information

Composted polyacrylate absorbents are non-toxic to aquatic or terrestrial organisms at predicted exposure levels.

B: Component Analysis – Aquatic Toxicity

No information available.

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. It's suitable for all transport mode.

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.

D: Food and Drug Administration

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.

Section 16. Regulatory information, continued

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