MATERIAL SAFETY DATA SHEET

SPILFYTER® Products Mercury Sorbent Powder

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Section 1. Chemical Product and Company Identification

18999948

Product Number: 5200 Series

Product Name: Mercury Sorbent Powder

Manufacturer:

Emergency Telephone Numbers:

J.V. Manufacturing Co., Inc. 963 Ashwaubenon Street Green Bay, WI 54304

CHEMTREC--Domestic (800)424-9300 24 hours

--International (202)483-7616 24 hours

Information

(800)334-9092 7am-5pm CDT M-F

Section 2. Composition/Information on Ingredients

CAS Registry # 7440-66-6

Component Zinc Dust

77-92-9

Citric Acid

(NOTE: See Section 8 of this MSDS for Exposure Guidelines)

Section 3. Hazards Identification

********* Emergency Overview ****** *evolving hydrogen. The heat of the reaction may ignite the hydrogen. **********

Potential Health Effects

Eye: May cause irritation.

Skin: May cause irritation. Repeated skin contact may aggravate an existing dermatitis (skin condition) and/or sensitivity of the skin.

Inhalation: Exposure to dust levels exceeding the PEL (see Section 8) may irritate the nose, throat, and upper respiratory system.

Signs and Symptoms:

- Eyes: Redness, Tearing, Possible burns
- · Skin: Redness, Swelling, Possible burns
- Inhalation: Discomfort of the nose and throat, headache, fever, chills, muscle aches, nausea, and tiredness. These symptoms may persist for 6 to 24 hours.

Section 4. First Aid Measures

Eyes: Immediately flush with plenty of water for at least 15 minutes. If irritation persists, seek medical

Skin: Remove contaminated clothing. Brush off excess powder with a dry towel. Wash affected area with plenty of soap and water for several minutes. If skin irritation develops or persists, seek medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion: If swallowed, call a physician or poison control center immediately.

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Section 5. Fire Fighting Measures

Flash Point: Not Tested

Flammable Limits: Lower Explosive Limit (LEL): 13.6 g/ft³ Upper Explosive Limit: NA

Auto-ignition Temperature: NA

Extinguishing Media: Rock dust or dry sand

Special Fire Fighting Procedures:

For large fires or fires in confined areas, full emergency equipment with self-contained breathing apparatus and full protective clothing should be used. Dry zinc dust will not ignite spontaneously, but once ingnited, it may burn readily in air. Thermal decomposition of this product may produce carbon monoxide and carbon dioxide.

Evaporation Rate (Butyl Acetate=1): NA

% Vaporizable by volume (H₂O=100): NA

Section 6. Accidental Release Measures

Avoid breathing or generating airborne dust. Avoid contact with skin and eyes. If unused material is spilled, collect by sweeping, shoveling or vacuuming and recycle the material for use . If this product is mixed with other materials, see Section 13.

Section 7. Handling and Storage

Store in a cool, dry, and well ventilated area. Keep container tightly closed. Avoid contact with materials listed in Section 10. Keep away from flammable materials and sources of heat or flame.

Section 8. Exposure Controls/Personal Protection

Exposure Limits: None specifically established for this product; treat as a nuisance dust as defined in 29 CFR 1910.1000.

OSHA PEL: Total Zinc Dust is 15 mg/M³.

Respirable Fraction, Zinc Dust, is 5mg/M3.

ACGIH TLV is 10mg/M3.

The end-user must determine the specific types of personal protective equipment needed according to 29 CFR 1910.132—Personal Protective Equipment (PPE) for General Industry. The following are only suggestions:

- · Eyes: Safety glasses or goggles
- Skin: Suitable chemically resistant gloves and protective clothing
- Inhalation: Air purifying respirator with appropriate chemical cartridge or canister

Adequate ventilation should be provided to limit the threat of inhalation.

Section 9. Physical and Chemical Properties

Appearance: Very fine blue, gray, or white powder

Odor: Odorless

Boiling Point: 1666 °F

Vapor Pressure (mmHg): NA

Vapor Density: NA

Solubility in Water: Reacts with water Specific Gravity (H₂O=1): 7.11

Melting Point: 787 °F

pH: 1.18-1% aqueous solution

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Section 10. Stability and Reactivity

Stable: Yes

Conditions to Avoid: Contact with water or damp air due to the evolution of hydrogen.

Incompatibility (Materials to Avoid): Liquid acids and bases, cyanides, sulfides, and hypochlorites.

Hazardous Decomposition or Byproducts: Thermal decomposition of this material may produce carbon

monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur

Section 11. Toxicological Information

This product is not listed by NTP or IARC. See Section 15.

Section 12. Ecological Information

No data available. See Section 15.

Section 13. Disposal Considerations

This product in itself is considered to be non-hazardous as defined by RCRA (40 CFR 261). Once used, this product may take on the characteristics of the chemical(s) it was used with and should be disposed of accordingly. Disposal of this product (used or unused) must be in compliance with all local, state, and federal regulations.

Section 14. Transport Information

DOT:

Proper Shipping Name: Corrosive solids, n.o.s. (contains Citric Acid)

Hazard Class: 8 Packing Group: III

Identification Number: 1759

Section 15. Regulatory Information

The zinc dust in this product is considered to be non-hazardous by the Office of Hazardous Materials Management (49 CFR Sections 172.101 and 173.124).

TSCA Inventory Status: All components are listed on the TSCA list.

SARA Title III

Section 302 Extreme Hazardous Substance List: Not listed

Section 311/312 Hazard Classification:

Immediate (acute): Yes Delayed (chronic): Yes

Fire: No

Sudden Release of Pressure: No

Reactive: No

Section 313 Toxic Chemicals: Listed—Zinc Powder or Dust—1%

USEPA CERCLA-Reportable Quantity (RQ): Not listed

RCRA Hazardous Waste: Not listed

State/Int'l Right-to-Know Regulations: Canada's WHMIS—Citric Acid 1%

Section 16. Other Information

Abbreviations:

CFR: Code of Federal Regulations

OSHA: Occupational Safety and Health Administration

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Abbreviations (cont.):

MSDS: Material Safety Data Sheet PEL: Permissible Exposure Limit

NA: Not Applicable

ACGIH: American Conference of Governmental Industrial Hygienists

TLV: Threshold Limit Value NTP: National Toxicology Program

IARC: International Agency for Research on Cancer RCRA: Resource Conservation and Recovery Act

TSCA: Toxic Substances Control Act

SARA: Superfund Amendments and Reauthorization Act USEPA: United States Environmental Protection Agency

CERCLA: Comprehensive Response, Compensation, and Liability Act

DOT: Department of Transportation

WHMIS: Workplace Hazardous Materials Information System

n.o.s.: Not Otherwise Specified

NFPA: National Fire Protection Association HMIS: Hazardous Material Information System

NFPA Ratings: HMIS Ratings:

Health: 0 Health: 0 Flammability: 1 Reactivity: 1 Reactivity: 1

Personal Protection: X

NOTE: This MSDS has been prepared only for the Mercury Sorbent Powder (5200 Series) of SPILFYTER® Products. The MSDS's of the chemicals used with this product must be reviewed completely, and precautions taken as described.

The information accumulated herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, J.V. Manufacturing Co., Inc. cannot give guarantees regarding the information from sources, and expressly does not make any warranties, nor assumes any liability for its uses of this product.

Disclaimer

Fire: 1

Special Hazard: Avoid Water

You have purchased SPILFYTER® products from J.V. Manufacturing Co., Inc.

You have been provided data, product labels, MSDS's, and other information about SPILFYTER® Products.

Some SPILFYTER® Products are hazardous. Information about SPILFYTER® Products that are hazardous is furnished without guarantee. J.V. Manufacturing Co., Inc. does not guarantee the accuracy of the information about hazardous SPILFYTER® Products.

Those products are only to be used by people having expertise in using the hazardous products.

The information provided about the hazardous products is believed to be correct. You must perform your in estigation as to the safety, toxicity, suitability, and proper shipping method for any hazardous SPILFYTER® Product.

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You are also required by law to insure that all SPILFYTER® Products are properly shipped.

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