SPI Supplies Division

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Safety Data Sheet

Date Effective: January 25, 2017

SPI #02652-AB. #02652-NA

SPI-Chem[™] Polyvinylpyrrolidone Powder

Section 1.1: Identification

Chemical Name/Synonyms Polyvinylpyrrolidone; 2-pyrrolidinone, 1-ethenyl-, homopolymer

Product or Trade Name SPI-Chem™ Polyvinylpyrrolidone Powder

CAS #'s 9003-39-8

Chemical Formula..... (C₆H₉NO)x

Section 1.2: Relevant Uses/Restrictions

Laboratory chemical; stabilizer for glucose tests

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies Contacting CHEMTREC:

24 Hour Emergency Use Only #'s... Worldwide phone: 1-(703)-741-5970 Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

Not a hazardous substance or mixture according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

2.2 GHS Label elements

Warning: May form combustible dust concentrations in air. Precautionary statements: Keep away from all ignition sources, including heat, sparks, and flame. Keep container closed and grounded. Prevent dust accumulations to minimize explosion hazard.

2.3 Other Hazards: None

Hazardous Material Information System USA Health 0 Fire Hazard 0 Reactivity 0 Personal Protection

NFPA Rating (estimated)

Health 0 Flammability...... 0 Reactivity 0

Section 3: Composition

3.1 Substance:

Polyvinylpyrrolidone CAS# 9003-39-8 100%

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to applicable regulations.

Section 4: First Aid Measures

4.1 Description of first aid measures:

Inhalation

If inhaled, move person into fresh air. If not breathing, give artificial respiration.

Skin Contact

In case of skin contact, wash with soap and plenty of water.

Eye Contact

In case of eye contact, flush eyes with plenty of water as a precaution.

Ingestion

If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water.

Self-protection of the first aider

No additional information available.

- 4.2 Most important symptoms and effects, both acute and delayed See Section 2.2 and/or Section 11 for symptoms and effects.
- 4.3 Indication of any immediate medical attention and special treatment needed

No additional information available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NO_{x)}

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

Special protective equipment and precautions for firefighters

No additional information available.

Section 6: Accidental Release Measures

6.1 Personal precautions Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection, see Section 8.

- 6.2 Environmental precautions Do not let product enter drains.
- 6.3 Methods and material for containment and cleaning up Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections For disposal, see Section 13.

Section 7: Handling and Storage

- 7.1 Precautions for safe handling Provide appropriate exhaust ventilation at places where dust is formed. No additional information available.
- 7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

Laboratory chemical; stabilizer for glucose tests

This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection

Workplace exposure limits

Contains no substances with occupational exposure limit values. Nuisance dust: TLV: TWA 10 mg/m³; total 5 mg/m³ respirable

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Use general industrial hygiene practice. Ensure adequate ventilation to keep airborne levels below recommended exposure limits. It is recommended that dust control equipment, such as local exhaust ventilation, contain explosion relief vents or an explosion suppression system, or an oxygen-deficient environment.

8.2.2 Individual protection measures

Eye protection: Chemical safety goggles.

Skin protection: Chemical resistant apron. Long sleeved clothing. Gloves.

Respiratory protection: Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink, or smoke. Wash hands before breaks and immediately after handling the product.

8.2.3 Environmental exposure controls Do not let product enter drains.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:

Form: solid, powder

Color: beige

Odor: Odorless

Odor threshold: No data available

pH: 5.0 – 8 at 10 g/l at 20 °C (68 °F)

Melting point/Freezing point: No data available

Boiling point/Boiling point range: No data available

Flash Point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Pressure: No data available

Vapor density: No data available

Relative density: No data available Solubility: No data available Partition coefficient (n-octanol/water): No data available Auto-ignition temperature: No data available Decomposition temperature: No data available Viscosity: No data available Explosive properties: No data available Oxidizing Properties: No data available

9.2 Other information: No data available.

Section 10: Stability and Reactivity

10.1 Reactivity No data available.

- 10.2 Chemical Stability Stable under recommended storage conditions.
- 10.3 Possibility of Hazardous Reactions No data available.
- 10.4 Conditions to avoid No data available.
- 10.5 Incompatible materials Strong oxidizing agents.
- 10.6 Hazardous decomposition products Other decomposition products – no data available. In the event of fire: See Section 5.

Section 11: Toxicological Information

Information on the likely routes of exposure Ingestion, Inhalation

- 11.1 Information on toxicological effects
 - A. acute toxicity LD50 Oral – rat – 100,000 mg/kg Diarrhea

Inhalation - No data available.

Dermal - No data available.

B. skin corrosion/irritation Skin – rabbit Result: No irritation

- C. serious eye damage/irritation Eyes – rabbit Result: No irritation
- D. respiratory of skin sensitization Will not occur.
- E. germ cell mutagenicity No data available.
- F. carcinogenicity Not considered carcinogenic. Not classifiable as to its carcinogenicity to humans.

 IARC: Group 3: Not classifiable as to its carcinogenicity to humans (1-Ethenyl-2-purrolidinone homopolymer)

 ACGIH:
 Not listed.

NIP:	Not listed
OSHA:	Not listed

- G. reproductive toxicity No data available.
- H. STOT-single exposure No data available.
- I. STOT-repeated exposure No data available.
- J. aspiration hazard No data available.

Section 12: Ecological Information

- 12.1 Toxicity No data available.
- 12.2 Persistence and degradability No data available.
- 12.3 Bio-accumulative potential No data available.
- 12.4 Mobility in soil No data available.
- 12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required / not conducted.
- 12.6 Other adverse effects No data available.

Section 13: Disposal Considerations

13.1 Waste treatment methods Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be disposed of in accordance with Federal, State and Local regulations.

Contaminated packaging – Dispose of as unused product.

Section 14: Transport Information

DOT - Not regulated / not dangerous goods.

IATA - Not regulated / not dangerous goods.

IMDG - Not regulated / not dangerous goods.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

This material does not have any SARA hazards.

State Right-to-Know Lists

CAS# 9003-39-8 (1-Ethenyl-2-pyrrolidinone homopolymer) is listed in the Pennsylvania and New Jersey Right-to-Know Lists.

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

CANADA

WHMIS hazard class: Non-controlled.

15.2 Chemical Safety Assessment

A chemical safety assessment not required / not conducted.

Other information

Date of preparation: January 25, 2017

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation CMRG: Chemical Manufacturer's Recommended Guidelines IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bio-accumulative and Toxicological vPvB: very Persistent and very Bio-accumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit STEL: Short Term Exposure Limit CEIL: Ceiling

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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