SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
Product Name: 50% w/v Polyvinylpyrrolidone K 15, 200 ml
Product Number: HR2-769
REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS Number: 9003-39-8

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the Safety Data Sheet
Company: Hampton Research
34 Journey
Aliso Viejo, CA 92656-3317
United States
Telephone: 949 425 1321
Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.
Fax: 949 425 1611
Fax Technical Support is available 24 hours a day.
e-mail: tech@hrmail.com
e-mail Technical Support is available 24 hours a day.

1.4 Emergency telephone number
Emergency phone: 949 425 1321
For CHEMTREC Assistance: 800 424 9300
For CHEMTREC Assistance: 703 527 3887 (International)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements
The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards: none
SECTION 3: Composition/Information On Ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Synonym</th>
<th>Formula</th>
<th>$M_n$</th>
<th>CAS #</th>
<th>EC #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinylpyrrolidone K 15</td>
<td>Polyvidone • PVP • Povidone • Poly(1-vinyl-2-pyrrolidinone) homopolymer</td>
<td>$(C_6H_9NO)_n$</td>
<td>~ 10,000</td>
<td>9003-39-8</td>
<td>201-800-4</td>
</tr>
</tbody>
</table>

RTECS: TR8370000  Merck: 14,7697  Beilstein: N/A  SARA: No  MDL #: MFCD01076626  PubChem Substance ID: 24887764

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
</table>

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General Advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes as a precaution and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
Unexcreted particles may be phagocytized by cells of the reticuloendothelial system and deposited in storage sites in the liver, spleen, lung, and bone marrow resulting in the storage disease thsaurosisis. Severity and symptoms depend on storage site and nature of the particle. Pathological changes are not necessarily attributed to the thesaurosisis, but in some cases an inflammation or granulomatoma have occurred.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
(CONTINUED) - SECTION 5: Fire Fighting Measures

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx)

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further Information
No data available

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
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 materials 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 Personal Precautions
Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. See Section 8 for additional information on hygiene measures. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Immersion protection
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: > 480 min
Material tested:Dermatril® (Aldrich Z677272, Size M)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: > 30 min
Material tested:Dermatril® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. 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).

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance  Form: Clear, Dark Yellow to Dark Amber Color (Solution)
b) Odor  no data available
c) Odor Threshold  no data available
d) pH  no data available
(CONTINUED) - SECTION 9: Physical and Chemical Properties

e) Melting point/freezing point 165°C (329°F)
f) Initial boiling point and boiling range no data available
g) Flash point no data available
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapor pressure no data available
l) Vapor density no data available
m) Relative density no data available
n) Water solubility no data available
o) Partition coefficient: noctanol/water no data available
p) Autoignition temperature no data available
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

9.2 Other safety information
no data available

SECTION 10: Stability And Reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

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

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - rat - 100.000 mg/kg
Remarks: Diarrhoea

Skin irritation / corrosion
Skin - rabbit - No skin irritation

Serious eye damage/eye irritation
Eyes - rabbit - No eye irritation

Respiratory or skin sensitization
Will not occur

Germ cell mutagenicity
no data available

Chronic exposure
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans
(1-Ethenyl-2-pyrrolidone homopolymer)

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.

Signs and Symptoms of Exposure
Unexcreted particles may be phagocytized by cells of the reticuloendothelial system and deposited in storage sites in the liver, spleen, lung, and bone marrow resulting in the storage disease thesaurosis. Severity and symptoms depend on storage site and nature of the particle. Pathological changes are not necessarily attributed to the thesaurosis, but in some cases an inflammation or granuloma have occurred.

Additional information
RTECS: TR8370000
SECTION 12: Ecological Information

12.1  Toxicity
      no data available

12.2  Persistence and degradability
      no data available

12.3  Bioaccumulative potential
      no data available

12.4  Mobility in soil
      no data available

12.5  Results of PBT and vPvB assessment
      no data available

12.6  Other adverse effects
      no data available

SECTION 13: Disposal Considerations

13.1  Waste treatment methods
      Product
      Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a
      combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

      Contaminated packaging
      Dispose of as unused product.

SECTION 14: Transportation Information

14.1  UN number
      ADR/RID:  -  IMDG:  -  IATA:  -

14.2  UN proper shipping name
      ADR/RID:  Not dangerous goods
      IMDG:  Not dangerous goods
      IATA:  Not dangerous goods

14.3  Transport hazard class(es)
      ADR/RID:  -  IMDG:  -  IATA:  -

14.4  Packaging group
      ADR/RID:  -  IMDG:  -  IATA:  -

14.5  Environmental hazards
      ADR/RID:  No  IMDG Marine pollutant: no  IATA:  No

14.6  Special precautions for user
      No data available
SECTION 15: Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
No data available

SECTION 16: Other Information

DISCLAIMER
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WARRANTY
The above information is believed to be correct but does no purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.
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