

## SAFETY DATA SHEET

Preparation Date: 3/11/2016

Revision Date: 4/20/2016

Revision Number: G2

### 1. IDENTIFICATION

**Product identifier**

**Product code:** P1229  
**Product Name:** POLYVINYLPIRROLIDONE K-90, FCC

**Other means of identification**

**Synonyms:** 1-Ethenyl-2-pyrrolidinone polymers  
 Poly(1-(2-oxo-1-pyrrolidinyl)ethylene)  
 PVP K-90  
 Poly(n-vinylbutyrolactam)  
 Poly(vinylpyrrolidinone)  
 Poly(N-vinylpyrrolidinone)  
 2-Pyrrolidinone, 1-ethenyl, homopolymer  
 2-Pyrrolidinone, 1-vinyl-, polymers  
 N-Vinylbutyrolactam polymer  
 Vinylpyrrolidinone polymer  
 N-Vinylpyrrolidinone polymer  
 Vinylpyrrolidone polymer  
 N-Vinylpyrrolidone polymer  
 Povidone K-90

**CAS #:** 9003-39-8  
**RTECS #** TR8370000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Clarifying agent in wines, beer, fruit juice and as a dispersing and suspending agent in pharmaceuticals; In pharmaceuticals as complexor for slow release; in hair sprays; in shampoos; in hair rinses & dyes; textile dye stripper; in textiles to improve dye affinity; In cast films adherent to glass, metals, and plastics; detergents; adhesives, detoxification of chemicals such as iodine, phenol, and poisonous drugs; As a thickener for printing inks and latex paints, as a dispersant in laundry detergents, as a protective colloid in the emulsion and suspension polymerization of many polymers and as a water binding agent for the concentration of protein solutions. Medication.

**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous 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)

Combustible dust

### Label elements

#### **Warning**

May form combustible dust concentrations in air

### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

Not available

### **Precautionary Statements - Prevention**

Keep away from all ignition sources including heat, sparks, and flame

Keep container closed and grounded

Prevent dust accumulations to minimize explosion hazard

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Povidone K-90 9003-39-8	9003-39-8	100

## 4. FIRST AID MEASURES

### First aid measures

#### **General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222

#### **Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

#### **Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

#### **Inhalation:**

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### **Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Product code:** P1229

**Product name:**  
POLYVINYLPIRROLIDONE K-90, FCC

2 / 11

**Most important symptoms and effects, both acute and delayed**

**Symptoms**

May cause skin irritation. May cause eye irritation. Dust may cause respiratory tract irritation. Ingestion may cause nausea, vomiting, and diarrhea. May cause purging. May affect the liver.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:**

Treat symptomatically

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:**

Dry chemical. Carbon dioxide (CO2). Water spray, mist, or foam.

**Unsuitable Extinguishing Media:**

No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:**

Carbon monoxide, Carbon dioxide; nitrogen oxides

**Specific hazards:**

May be combustible at high temperatures  
Avoid generating dust  
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

**Special Protective Actions for Firefighters**

**Specific Methods:**

No information available.

**Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:**

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dispersal of dust in the air. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment**

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up**

Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE**

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Minimize dust generation and accumulation. Avoid dust formation. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. All equipment used when handling the product must be grounded. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors/dust. Do not ingest. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

#### **Incompatible Materials:**

Oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Povidone K-90 9003-39-8	None	None	None	None

##### **Canada**

Components	Alberta	British Columbia	Ontario	Quebec
Povidone K-90 9003-39-8	None	None	None	None

##### **Australia and Mexico**

Components	Australia	Mexico
Povidone K-90 9003-39-8	None	None

### Appropriate engineering controls

#### **Engineering measures to reduce exposure:**

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment) It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment

## Individual protection measures, such as personal protective equipment

### Personal Protective Equipment

<b>Eye protection:</b>	Goggles
<b>Skin and body protection:</b>	Chemical resistant apron. Long sleeved clothing. Gloves.
<b>Respiratory protection:</b>	Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. .
<b>Hygiene measures:</b>	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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Powder.	<b>Color:</b> White.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available	<b>Formula:</b> (C <sub>6</sub> H <sub>9</sub> NO) <sub>n</sub>
<b>Molecular/Formula weight:</b> (111.14) <sub>n</sub>	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>pH:</b> No information available	<b>Melting point/range(°C/°F):</b> Glass Transition Temperature (T <sub>g</sub> ) = 174°C (345.2 °F)
<b>Decomposition temperature(°C/°F):</b> No information available	<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available
<b>Density (g/cm<sup>3</sup>):</b> No information available	<b>Specific gravity:</b> 1.23-1.29	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Soluble in water giving a colloidal solution Practically insoluble in Ether Soluble in Alcohol Soluble in Chloroform	

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents

**Chemical stability**

**Stability:** Stable under recommended storage conditions

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Avoid dust formation. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Incompatible materials.

**Incompatible Materials:** Oxidizing agents.

**Hazardous decomposition products:** When heated to decomposition it emits toxic fumes. Nitrogen oxides (NOx). Carbon monoxide.

**Other Information**

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Principal Routes of Exposure:**

Ingestion. Inhalation.

**Acute Toxicity**

**Component Information**

*Povidone K-90 - 9003-39-8*

**LD50/oral/rat** = 100 g/kg Oral LD50 Rat

**LD50/oral/mouse** = >40000 mg/kg

**LD50/dermal/rabbit** = No information available

**LD50/dermal/rat** = No information available

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = 100000 mg/kg oral LD50 Guinea Pig  
1040 mg/kg oral LD50 Rabbit

**Product Information**

**LD50/oral/rat =**

**VALUE- Acute Tox Oral** = 100000mg/kg

**LD50/oral/mouse =**

**Value - Acute Tox Oral** = >40000 mg/kg

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**Product code:** P1229

**Product name:**  
POLYVINYLPIRROLIDONE K-90, FCC

**6 / 11**

VALUE-Dust/Mist = No information available

**LC50/Inhalation/mouse**

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

**Symptoms**

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of respiratory tract. Other symptoms may include sore throat, chest tightness, coughing. Can cause dyspnea (shortness of breath and difficulty breathing).

**Ingestion** Ingestion may cause nausea, vomiting, diarrhea. It can have a purging or laxative effect.. May affect liver .

**Aspiration hazard** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** No information available

**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic. Not classifiable as to its carcinogenicity to humans.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Povidone K-90	Group 3 - Monograph 71 [1999] Supplement 7 [1987] Monograph 19 [1979]	Not listed	Not listed	Not listed	Not listed	Not listed

**IARC (International Agency for Research on Cancer)**  
*Group 3 - Not classifiable as to its carcinogenicity to humans*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available

**STOT - repeated exposure** No information available

**Target Organs:** No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Povidone K-90	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** None  
**ERG No:** No information available  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions:** No Information available  
**Symbol(s):** No information available

### TDG (Canada)

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant:** No Information available

### ADR

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available

**Product code:** P1229

**Product name:**  
POLYVINYLPIRROLIDONE K-90, FCC

8 / 11



## 14. TRANSPORT INFORMATION

**Subsidiary Risk:** No information available

### IMO / IMDG

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant:** No information available

### RID

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

### ICAO

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

### IATA

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**ERG Code:** No information available  
**Special Provisions:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Povidone K-90</i>	Present XU	Present KE-13324	Present	Present (6)-1007 (6)-1048	Present	Present	Not present

### U.S. Regulations

*Povidone K-90*

**California Directors List of Hazardous Substances:** Present

**FDA - Direct Food Additives** 21 CFR 172.210 21 CFR 173.55

**FDA - 21 CFR - Total Food Additives** 172.210 173.55 175.105 175.300 176.170 176.180 176.210 73.1 73.1001

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

#### **Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### **Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Product code:** P1229

**Product name:**  
POLYVINYLPIRROLIDONE K-90, FCC

**9 / 11**

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Povidone K-90	Not Listed	Not Listed	Not Listed	Not Listed

#### CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
Povidone K-90	None	None	None	None	None

#### U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Povidone K-90	Not Applicable	Not Applicable

#### Canada

##### WHMIS hazard class:

Non-controlled

##### Povidone K-90

Uncontrolled product according to WHMIS classification criteria

##### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

#### Inventory

Components	Canada (DSL)	Canada (NDSL)
Povidone K-90	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances
Povidone K-90	Not listed

Components	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Povidone K-90	Not listed

#### EU Classification

##### R-phrase(s)

not determined (not applicable)

##### S -phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
Povidone K-90		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

None.

**16. OTHER INFORMATION**

**Preparation Date:** 3/11/2016  
**Revision Date:** 4/20/2016  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**