

Regd Office: Unit no 12, 1st Floor,
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MATERIAL SAFETY DATA SHEET

POLYVINYL PYROLIDONE K90

(For Synthesis)

MSDS CAS: 9003-39-8

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: POLYVINYL PYROLIDONE K90

CAS#: 9003-39-8

Synonym: Plasdone K-90, Agrimer, Albigen A, Hemodesis, K30, Luviskol K30, Plasdone, Povidone, PVPP, PVP-K 30; PVP; Polyvinylpyrrolidone; Poly[1-(2-oxo-1-pyrrolidinyl)ethylene]; Povidone K-30; 1-Ethenyl-2-pyrrolidinone polymers; 2-Pyrrolidinone, 1-ethenyl, homopolymer; 2-Pyrrolidinone, 1-vinyl-, polymers; N-Vinylpyrrolidinone polymer; N-Vinylbutyrolactam polymer; N-Vinylpyrrolidone polymer;

Chemical Name: Poly(1-vinyl-2-pyrrolidinone)

Chemical Formula: (C₆H₉NO)_n

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification: OXFORD LAB FINE CHEM LLP
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
Navghar, Vasai (East). Palghar - 401 210.
Mumbai, Maharashtra, INDIA.
Tel: 91-250-2390989
Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

| Name | CAS # | % by Weight |
|---------------------------|-----------|-------------|
| Polyvinyl Pyrolidone K-90 | 9003-39-8 | 100 |

Toxicological Data on Ingredients: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects: CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Section 5: Fire and Explosion Data (Continued)

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards: Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. est. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

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Section 8: Exposure Controls/Personal Protection

Engineering Controls: 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.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Powdered solid. Amorphous solid powder.)

| | |
|-------------------------------|---|
| Odor | : Odorless. |
| Taste | : Not available. |
| Molecular Weight | : (111.14)n g/mole |
| Color | : Creamy White. |
| pH (1% soln/water) | : Not available. |
| Boiling Point | : 90°C (194°F) - 93 C |
| Melting Point | : 13.9°C (57°F) |
| Critical Temperature | : Not available. |
| Specific Gravity | : Density: 1.23 - 1.29(Water = 1) |
| Vapor Pressure | : Not available. |
| Vapor Density | : Not available. |
| Volatility | : Not available. |
| Odor Threshold | : Not available. |
| Water/Oil Dist. Coeff. | : Not available. |
| Ionicity (in Water) | : Not available. |
| Dispersion Properties | : See solubility in water. |
| Solubility | : Soluble in cold water. Soluble in water giving a colloidal solution. Soluble in chloroform, alcohol, chlorinated hydrocarbons, amines, nitro pariffins, lower weight fatty acids. |

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity: Hygroscopic; keep container tightly closed.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 40000 mg/kg [Mouse].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.

Other Toxic Effects on Humans:

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: It is not considered a primary irritant. However, it may cause skin irritation. Eyes: May cause eye irritation. Inhalation: Breathing dust may cause respiratory tract irritation. Symptoms may include coughing, sore throat, labored breathing, and chest pain. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, hypermotility, and diarrhea. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the urinary system, and spleen.

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Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:
The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Land transport (ADR-RID)

General information: Not regulated.

Sea transport (IMDG) [English only]

General information: Not regulated.

Air transport (ICAO-IATA) [English only]

General information: Not regulated.

Section 15: Other Regulatory Information

Federal and State Regulations: California Director's List of Hazardous Substances: Povidone K-90
TSCA 8(b) inventory: Povidone K-90

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Section 15: Other Regulatory Information (Continued)

Other Regulations: Not Available.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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