



## Material Safety Data Sheet

**Product Name: Povidone Iodine**

### Section 1-Product Information

**Chemical Name** : (PVP – Iodine) Povidone Iodine  
**CAS No** : 25655-41-8  
**HS Code** : 38084000  
**Synonym's** : N/A

### Section 2-Composition, Information on Ingredients

**Ingredient** : Povidone-Iodine  
**Percent** : 60-100%  
**Appearance** : Brownish Red powder  
**Toxicity** : LD 50 Oral-5600 mg/kg

### Section 3-Hazards Identification

#### Potential Health Effects

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

#### Potential Chronic Health Effects:

**Carcinogenic Effects** : Not available.  
**Mutagenic Effects** : Mutagenic for bacteria and/or yeast.  
**Teratogenic Effects** : Not available.  
**Developmental Toxicity** : Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4-First Aid Measure

**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.

**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.

**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.

**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.



## Section 5-Fire fighting procedure

**Flammability of product :** May be combustible at high temperature.

**Auto-Ignition temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>).

**Fire Hazards in presence of various substances:** Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Explosion Hazard in presence of various substances :**

Risk of explosion of the product in presence of mechanical impact: Not available.

Risk of explosion of the product in presence of static discharge: Not available.

**Fire Extinguishing Media:**

Small fire: Use dry chemical powder.

Large fire: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** A mixture of Povidone solution and hydroxide peroxide 3% will explode.

## Section 6-Accidental Release Measure

**Small Spills:** 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 accordingly 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 locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents.

**Storage:** Moisture sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).



## Section 8-Exposure control/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:** Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal protection in case of large spills:** Splash goggles. Full suit. Dust 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:** Exposure for Nuisance dust: TWA: 10 (mg/m<sup>3</sup>) Inhalation Total. TWA: 5 (mg/m<sup>3</sup>) Inhalation respirable. Consult local authorities for acceptable exposure limits.

## Section 9-Physical Chemical Properties

|                                 |  |
|---------------------------------|--|
| <b>Appearance</b>               | : Brownish Red powder  |
| <b>Odour</b>                    | : Iodine (Slight)  |
| <b>Solubility</b>               | : Easily soluble in cold water, hot water. Insoluble in diethyl ether, acetone. Physically insoluble in carbone tetrachloride, hexane, and chloroform. |
| <b>Taste</b>                    | : Not available  |
| <b>Molecular weight</b>         | : Not available  |
| <b>pH (1% soln/water)</b>       | : No information found   |
| <b>Boling Point</b>             | : Not applicable   |
| <b>Melting Point</b>            | : 560 oC(104oF) (partial decomposition)  |
| <b>Critical Temperature</b>     | : Not available  |
| <b>Specific Gravity</b>         | : Not available  |
| <b>Vapour Density</b>           | : No information found   |
| <b>Vapour Pressure (mm Hg):</b> | Not applicable   |
| <b>Volatility</b>               | : Not available  |
| <b>Odor Threshold</b>           | : Not available  |
| <b>Water/Oil dist. Coeff</b>    | : Not available  |
| <b>Ionicity (in water)</b>      | : Not available.   |
| <b>Dispersion properties</b>    | : See solubility in water.   |

## Section 10-Stability and Reactivity

**Stability** :The product is stable

**Instability temperature:** Not available

**Conditions of Instability:** Excess heat, moisture, incomplete materials

**Incompatibilities** : Reactive with oxidizing agents, reducing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Absorbs moisture from the air.

**Special Remarks on Corrosivity:** Not available

**Polymerization:** Will not occur.



## Section 11-Toxicity Information

**Routes of entry:** Absorbed through skin. Inhalation. Ingestion.

**Toxicity to animals:** Acute oral toxicity (LD50): 8000 mg/kg [Rat].

**Chronic effects on humans:** MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

**Other Toxic effects on Humans:** Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, permeator).

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic effects on humans:** May cause adverse reproductive effects based on animal data. May affect genetic material.

**Special Remarks on other Toxic effects on Humans:**

Acute Potential Health Effects: Skin: May cause mild skin irritation. It may be absorbed through skin. Topical application of Povidone-Iodine may elevate blood serum concentrations of iodine and affect thyroid function, particularly when used in irrigating solutions. Eyes: May cause eye irritation. Inhalation: It may be very irritating to the respiratory tract and mucous membranes. Ingestion: Low toxicity. Ingestion of excessive amounts may result in symptoms of general nausea including vomiting, and abdominal cramps.

## 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

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.



## Section 15-Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Povidone-Iodine

**Other Regulations:** Not available.

**Other Classifications:**

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

**DSCL (EEC):** R36- Irritating to eyes. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.

**HMIS (U.S.A.)**

**Health Hazard:** 2

**Fire Hazard:** 1

**Reactivity:** 0

**Personal Protection:** E

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

**Health:** 2

**Flammability:** 1

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

## Section 16-Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

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