

**MATERIAL SAFETY DATA SHEET: ZINC OXIDE POWDER PREPARATIONS**

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**IDENTITY**

Trade Name: Pulpdent Root Canal Sealer Powder  
Pulpdent Zinc Oxide Powder USP  
Code: RK, RSP, RSP-4  
Z-O  
Chemical Description: Zinc oxide powder preparation  
Product Use: Dental cement component

**SECTION I**

Pulpdent Corporation  
80 Oakland Street  
Watertown, MA 02472 USA  
Phone Numbers:  
24 Hour Emergency: 1-800-535-5053  
Customer Service: 1-800-343-4342/1-617-926-6666  
Date prepared: September 1, 2007

**SECTION II - HAZARDOUS INGREDIENTS**

Ingredients	CAS RN	PEL	TLV
Zinc oxide	1314-13-2	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

DOT HAZARD CLASSIFICATION: Not regulated  
WHMIS CLASSIFICATION: D-2, Possible irritant  
NFPA HMIS RATING: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

Specific Gravity: 5.65 Melting Point: 1975°C  
Solubility in water: Insoluble Odor Threshold: odorless  
Appearance and Odor: Fine, white, odorless powder

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point: Not combustible Flammable limits: LEL and UEL Not applicable  
Extinguishing Media: Any method suitable for extinguishing supporting fire.  
Special Fire Fighting Procedures: None  
Hazardous Combustion Products / Unusual Fire and Explosion Hazards: None

**SECTION V - REACTIVITY DATA**

Stability: Stable  
Conditions to avoid: None  
Incompatibility: Avoid chlorinated rubber, magnesium, strong acids and bases.  
Hazardous Decomposition Products: None  
Hazardous Polymerization: Will not occur  
Conditions to avoid: None

**SECTION VI - HEALTH HAZARD DATA**

*Summary of Acute Hazards:* Minimal health hazard under normal conditions of use. Zinc oxide dust, as found in these products, is primarily a nuisance dust. Exposure to high concentrations of zinc oxide dust can result in respiratory system effects. Contact may also be irritating to eyes or skin.

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<i>Route of Exposure</i>	<i>Signs &amp; Symptoms</i>
Inhalation	None expected under normal conditions of use. Concentrations > 10 mg/m <sup>3</sup> may result in coughing, upper respiratory irritation, nausea.
Eye Contact	May be irritating.
Skin Absorption	Not applicable
Skin Contact	May be irritating.
Ingestion	Large amounts may cause nausea, abdominal pain, vomiting. LD <sub>50</sub> (Oral rat): 630 mg/kg

*Summary of Chronic Hazards:* No cumulative effects known for long term exposure to dust. Dermatitis and other skin reactions can occur in cases where there is prolonged exposure to zinc oxide dust and poor personal hygiene.

Carcinogenicity Not known to be a carcinogen.  
Teratogenicity, Mutagenicity, Reproductive Toxicity, Special Health Effects: None known.

*Emergency First Aid Procedures:*

Inhalation	If exposed to zinc oxide dust above the TLV, move to fresh air. Seek medical advice.
Eye contact	Flush the affected eye with lukewarm, gently flowing water for 15+ minutes. If irritation persists, seek medical care immediately.
Ingestion	Rinse mouth. Seek medical advice for ingestion of large quantities.
Skin contact	Wash affected area thoroughly with mild soap and running water. If irritation persists, seek medical advice.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING & USE**

Handling / Storage Precautions: Store tightly capped in original container at cool room temperature. Avoid moisture and incompatible materials,

Release or Spill: Wear gloves, splash goggles and dust mask. Scoop up spilled material, without raising dust, into clean, dry disposal container and cover. Flush the area clean with water.

Waste Disposal Method: Follow all government regulations. Other Precautions: Wash hands after use.

**SECTION VIII - CONTROL MEASURES**

Respiratory Protection: Not necessary under normal conditions of use. For large quantities and where dust would be a nuisance, a dust mask or mechanical filter respirator (P2) is recommended.

Ventilation: Under normal conditions of use, no special ventilation is required. For large quantities and where dust would be a nuisance, provide local exhaust and/or general mechanical ventilation to prevent dust concentrations above approved limits.

Protective Gloves: Recommended.

Eye Protection: Safety goggles are recommended.

Other Protective Clothing or Equipment: Emergency eye wash fountain should be maintained. Wear lab coat with long sleeves while handling zinc oxide.

Work/Hygienic Practices: Wash hands after use.

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*The information presented herein is believed to be factual as it has been derived from the works of persons believed to be qualified experts. However, nothing contained in this information is to be taken as a warranty or representation for which Pulpdent Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.*