


Trade Name: **ZINC OXIDE POWDER**

<b>1.0 Commercial Product Name and Supplier</b>																		
1.1	Commercial product name / designation	<b>Zinc Oxide Powder, USP</b>																
1.2	Application / Use	Chemical component																
1.3	Manufacturer	<p><b>Pulpdent Corporation</b>              80 Oakland Street              P.O. Box 780              Watertown, MA 02472 USA</p> <p>Telephone: 1 617 926-6666              Fax: 1 617 926-6262              Email: <a href="mailto:Pulpdent@pulpdent.com">Pulpdent@pulpdent.com</a></p>																
1.4	Emergency Telephone Number	1-800-535-5053 (24 Hour / USA)																
1.5	Authorized European Representative	<p>Advena Ltd.              Pure Offices, Plato Close              Warwick, CV34 6WE              United Kingdom</p>																
<b>2.0 Hazards Identification</b>																		
2.1	Classification																	
2.1.1	Classification according to Regulation (EC) No 1272/2008 [CLP]	<table border="1"> <thead> <tr> <th><u>Hazard Class</u></th> <th><u>Hazard Category</u></th> <th><u>Hazard Statement</u></th> </tr> </thead> <tbody> <tr> <td>Eye irritation</td> <td>2B</td> <td>H320</td> </tr> <tr> <td>STOT SE</td> <td>3</td> <td>H335</td> </tr> <tr> <td>Skin irritation</td> <td>3</td> <td>H316</td> </tr> <tr> <td>Toxic to aquatic life</td> <td>1</td> <td>H400</td> </tr> </tbody> </table>	<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Hazard Statement</u>	Eye irritation	2B	H320	STOT SE	3	H335	Skin irritation	3	H316	Toxic to aquatic life	1	H400	
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2.1.2	Classification according to Directive 67/548/EEC (See SECTION 16 for full text of risk phrases)	Irritant; Xi; R 36/37/38, R50/53																
2.2	<b>GHS Label Elements</b>																	
	Hazard Pictograms																	
	Signal Word: <b>WARNING</b>																	
	<b>Restricted to use by dental professional only.</b>																	
	<b>Hazard Statements</b>																	
	H320: Causes eye irritation.																	
	H335: STOT SE: May cause respiratory irritation.																	
	H316: Causes mild skin irritation																	
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	<b>Precautionary Statements</b>																	
	P273: Avoid release into the environment.																	
	P280: Wear protective gloves and eye protection																	
	P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing																	
	P302+P352: If on skin, wash with plenty of soap and water.																	
	P342+P311: If experiencing respiratory symptoms, call a poison center or doctor/physician.																	

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<b>3.0 Composition</b>											
<b>3.1</b>	Chemical characterization of the preparation: Zinc oxide powder, USP										
<b>3.2</b>	Hazardous ingredients										
	<table border="1"> <thead> <tr> <th>CAS Number</th> <th>Name of the Ingredient</th> <th>Concentration</th> <th>Classification per 67/548/EEC</th> <th>Classification per Regulation (EC) No.1272/2008 (CLP).</th> </tr> </thead> <tbody> <tr> <td>1314-13-2</td> <td>Zinc oxide</td> <td>100%</td> <td>Irritant; Xi R3637//38, R50/53</td> <td>Eye irritation, 2B STOT SE, 3 Skin irritation, 3 Toxic to aquatic life, 1</td> </tr> </tbody> </table>	CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1272/2008 (CLP).	1314-13-2	Zinc oxide	100%	Irritant; Xi R3637//38, R50/53	Eye irritation, 2B STOT SE, 3 Skin irritation, 3 Toxic to aquatic life, 1
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1314-13-2	Zinc oxide	100%	Irritant; Xi R3637//38, R50/53	Eye irritation, 2B STOT SE, 3 Skin irritation, 3 Toxic to aquatic life, 1							
<b>4.0 First Aid Measures</b>											
<b>4.1</b>	General Information May be irritating to eyes, respiratory system and skin. Show this safety data sheet to medical personnel. Get medical attention in case of uncertainty.										
<b>4.2</b>	Inhalation Move to fresh air. If necessary, administer oxygen / artificial respiration and seek medical attention.										
<b>4.3</b>	Skin Contact Wash skin thoroughly with soap and water.										
<b>4.4</b>	Eye Contact Keep eyelids apart and flush with running water for 15+ minutes. Get medical attention for persistent irritation.										
<b>4.5</b>	Ingestion Rinse mouth with water. Do not induce vomiting. Get immediate medical attention.										
<b>4.6</b>	Precautions for first responders Ventilate the area. Wear eye and skin protection.										
<b>4.7</b>	Information for physicians Symptoms Irritation or redness in eyes, mucous membranes or on skin. Hazards May be irritating to eyes, respiratory system and skin. Treatment As above under First Aid.										
<b>5.0 Fire Fighting Measures</b>											
<b>5.1</b>	Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide										
<b>5.2</b>	Extinguishing media to avoid None										
<b>5.3</b>	Special exposure hazards in a fire Hazardous combustion products: zinc/zinc oxides										
<b>5.4</b>	Special protective equipment for fire-fighters A self-contained breathing apparatus should be worn by firefighting personnel. Cool exposed containers with water spray.										
<b>6.0 Accidental Release Measures</b>											
<b>6.1</b>	Personal precautions. Ventilate area. Wear dust mask, gloves, lab coat and safety glasses.										
<b>6.2</b>	Environmental precautions Contain spilled material. Do not allow material to enter drains or to be discharged into environment. Follow all government regulations.										
<b>6.3</b>	Method for clean up Carefully sweep into dry, covered container. Avoid raising dust. Rinse area with water.										

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<b>7.0</b>	<b>Handling and Storage</b>	
7.1	Handling	Avoid contact with skin and eyes, and formation of dust. Follow good hygiene practices. Provide adequate ventilation. Recap immediately after use.
7.2	Storage	Keep containers tightly closed in a dry, well-ventilated place at cool room temperature (< 25°C). Provided that the material has been stored properly, shelf life for unopened powder is five years from date of manufacture.
7.3	Specific uses	Chemical component
<b>8.0</b>	<b>Exposure Controls / Personal Protection</b>	
8.1	Exposure limit values	Zinc oxide: PEL: 5 mg/m <sup>3</sup> . TLV: 10 mg/m <sup>3</sup> .
8.2	Exposure controls	
8.2.1	Occupational exposure controls	No special equipment required with the use of small quantities.
8.2.1.1	Respiratory protection	Good general ventilation is sufficient to control any nuisance during normal conditions of use of this product. For large quantities, use type P95 (US) or P1 (EU EN 143) particle respirator.
8.2.1.2	Hand protection	Handle with gloves.
8.2.1.3	Eye protection	Safety glasses with side shields or a face shield.
8.2.1.4	Skin protection	Wear a lab coat
8.2.1.5	Other controls	Emergency eye wash fountain.. Wash hands after use.
8.2.2	Environmental exposure controls	Do not allow material to enter drains or to be discharged into environment.
<b>9.0</b>	<b>Physical and Chemical Properties</b>	
9.1	Appearance / Color / Odor	
9.1.1	Appearance / Color	Fine white powder
9.1.2	Odor	None
9.2	Important health, safety and environmental information	
9.2.1	pH	Not applicable
9.2.2	Boiling point	Not applicable
9.2.3	Flash point	Not applicable
9.2.4	Flammability (solid, gas)	Not determined
9.2.5	Explosive properties	Not applicable
9.2.6	Oxidizing properties	Not determined
9.2.7	Vapor pressure	< 1 mm Hg / 133 Pa
9.2.8	Specific gravity	5.610
9.2.9	Solubility in water	Nil

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9.2.10	Partition coefficient	Not applicable
9.2.11	Viscosity	Not applicable
9.2.12	Vapor density	Not applicable
9.2.13	Evaporation rate	Not applicable
<b>10.0</b>	<b>Stability and reactivity</b>	
10.1	Conditions to avoid	No data available
10.2	Materials to avoid	Strong oxidizing agents.
10.3	Hazardous decomposition products	Zinc/zinc oxide under fire condition.
10.4	Further information	Stable under recommended storage conditions
<b>11.0</b>	<b>Toxicological information</b>	
11.1	Acute toxicity	LD <sub>50</sub> Oral – mouse: 7950 mg/kg; LD <sub>50</sub> Inhalation – mouse:2500 mg/m <sup>3</sup>
11.2	Irritation and corrosiveness	May be irritating to eyes, respiratory system or skin on contact or with prolonged exposure.
11.3	Sensitization	Not applicable
11.4	Sub-acute, sub-chronic and prolonged toxicity	Prolonged exposure to large amounts of zinc oxide may cause dermatitis unless good personal hygiene is practiced. Prolonged exposure may cause eye and respiratory irritation.
11.5	Carcinogenicity, Mutagenicity, Reproductive Toxicity	None known
11.6	Empirical data	Not available
11.7	Clinical experience	Zinc oxide has been used as a chemical component for over 70 years.
<b>12.0</b>	<b>Ecological Information</b>	
12.1	Ecotoxicity	Very toxic to aquatic life. Not be discharged into the environment or into drains.
<b>13.0</b>	<b>Disposal Considerations</b>	
13.1	Regulations	Follow all local and national government regulations in disposing material or contaminated packaging.
<b>14.0</b>	<b>Transport Information</b>	
14.1	DOT (US)	Not dangerous goods
14.2	IATA / IMDG	UN number: 3077; Class: 9; Packing Group: III. Proper shipping name: Environmentally hazardous substance, Solid, N.O.S. (Zinc oxide)
<b>15.0</b>	<b>Regulatory Information</b>	
15.1	US / EU / Canada	Not regulated

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16.0 Other information		
16.1	List of relevant R phrases	R36/37/38, Irritating to eyes, respiratory system and skin. R50/53, Very toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment.
16.2	Hazard Statements	H320: Causes eye irritation. H335: STOT SE: May cause respiratory irritation. H316: Causes mild skin irritation H400: Very toxic to aquatic life.
16.3	Precautionary Statements	P273: Avoid release into the environment. P280: Wear protective gloves and eye protection P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P302+P352: If on skin, wash with plenty of soap and water. P342+P311: If experiencing respiratory symptoms, call a poison center or doctor/physician.
16.4	Restrictions on use	None
16.5	Further information	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.
16.5	Sources of key data	National Institute for Occupational Safety (NIOSH) US Occupational Safety and Health Administration (OSHA) Eur-Lex European Union Law: Regulation (EC) No. 1272/2008 (CLP) and Regulation (EC) No. 1907/2006 (REACH). Guidance on the compilation of safety data sheets. Version 1.1; December 2011. European Chemicals Agency
16.6	Information which has been added, deleted or revised.	This Safety Data Sheet has been revised to meet the requirements of the GHS SDS format, Regulations (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH). Specifically, Sections 2.1, 2.2, 3.2, 16.2, 16.3 have been modified.