

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

075901806

N/A

**MATERIALS SAFETY DATA SHEET: ORTHO-CHOICE ORTHO-COAT™**

---

**IDENTITY** Trade Name: ORTHO-CHOICE ORTHO-COAT™ Code: OC  
Chemical Description: Light-cured, reinforced resin with no Bisphenol A  
Product Use: Dental material

**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, 2008

**SECTION II - HAZARDOUS INGREDIENTS**

Ingredients	CAS Number	Percentage	PEL / TLV
Uncured acrylate resins	-----	-----	Not established
Silica, amorphous	112945-52-5	< 1.0 %	6 mg/m <sup>3</sup> / 10 mg/m <sup>3</sup>
Hydrofluoric acid	7664-39-3	0.3 %	3 ppm

DOT HAZARD CLASSIFICATION: Not regulated

WHMIS CLASSIFICATION: D-2, Possible irritant

NFPA HMIS RATING: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 1

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

Solubility in water: Slight Odor Threshold: Not available  
Appearance: Clear resin Odor: Mild, characteristic, resin odor

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

Flash Point: Not established Flammable limits: Not established

Extinguishing Media: Use carbon dioxide, dry chemical, alcohol foam or water fog. Water spray may be used to keep fire exposed containers cool.

Special Fire Fighting Procedures: A self-contained breathing apparatus should be worn by fire fighting personnel. Cool exposed containers with water spray to prevent polymerization under fire conditions.

Hazardous Combustion Products: Hazardous polymerization with heat build up and release of carbon monoxide, carbon dioxide and oxides of nitrogen may occur under fire conditions.

**SECTION V - REACTIVITY DATA**

Stability: Stable

Conditions to avoid: Temperature > 100°F, direct sunlight, strong visible light.

Incompatibility: Reducing and oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, oxides of nitrogen.

Hazardous Polymerization: None under normal conditions of use.

Conditions to avoid: Temperature > 100°F, direct sunlight, strong visible light

**MATERIALS SAFETY DATA SHEET: ORTHO-CHOICE ORTHO-COAT™**

---

SECTION VI - HEALTH HAZARD DATA

Summary of Acute Hazards: Mildly corrosive. Minimal health hazard under normal conditions of use and in the quantities present in this product. Material may be irritating to skin, eyes, respiratory tract or mucous membranes on contact.

<i>Route of Exposure</i>	<i>Signs &amp; Symptoms</i>
Inhalation	May be irritating to mucous membranes
Eye Contact	May be irritating on contact
Skin Absorption	Not applicable
Skin Contact	May cause irritation.
Ingestion	May be irritating to mucous membranes

*Summary of Chronic Hazards:* May be sensitizing, especially with prolonged and/or repeated exposure.

Carcinogenicity	Not known to be a carcinogen
Teratogenicity	None known.
Mutagenicity	None known.
Reproductive Toxicity	None known.

*Emergency First Aid Procedures:*

Inhalation	Move to fresh air. Administer artificial respiration if required and seek medical attention.
Eye Contact	Flush eyes with copious amounts of water for 15+ minutes. Seek medical attention for prolonged irritation.
Ingestion	Have person rinse mouth with water. Consult physician.
Skin Contact	Wash skin with soap and water for 15+ minutes. Get medical care for persistent or severe irritation.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING & USE

Handling and Storage Precautions: Store tightly capped in original container at cool room temperature. Avoid temperature extremes, intense light and moisture.

Release or Spill: Wear gloves and eye protection. Wipe up spill with suitable material such as paper towels; collect for disposal in covered waste container.

Waste Disposal Method: Follow all government regulations.

Other Precautions: Recap syringe immediately after use.

SECTION VIII - CONTROL MEASURES

Respiratory Protection: None required under normal conditions of use.

Ventilation: Adequate to maintain exposure below 3 ppm. No special ventilation necessary under anticipated conditions of normal use.

Protective Gloves: Recommended                      Eye Protection: Recommended.

Other Protective Clothing or Equipment: Emergency eye wash fountain should be available

Work/Hygienic Practices: Wash hands after use.


---

*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.*

---

## Safety Data Sheet

Trade Name: **ORTHO-CHOICE™ ORTHO-COAT™**

1.0 Commercial Product Name and Supplier																
1.1	Commercial product name / designation <b>Ortho-Choice Ortho-Coat</b>															
1.2	Application / Use Dental material for use by dental professional only.															
1.2.2	SIC 851 Human health activity															
1.2.3	Use Category 55															
1.3	Manufacturer <b>Pulpdent Corporation</b> 80 Oakland Street, P.O. Box 780 Watertown, MA 02472 USA Telephone: 1 617 926-6666 / Fax:1 617 926-6262 Email: <a href="mailto:Pulpdent@pulpdent.com">Pulpdent@pulpdent.com</a>															
1.4	Emergency Telephone Number 1-800-535-5053 (24 Hour / USA)															
1.5	Authorized European Representative Advena Ltd. Pure Offices, Plato Close Warwick, CV34 6WE United Kingdom															
2.0 Hazards Identification																
2.1	Classification Irritant.															
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>2</td> <td>H319</td> </tr> <tr> <td>STOT SE</td> <td>3</td> <td>H335</td> </tr> <tr> <td>Skin irritation</td> <td>2</td> <td>H315</td> </tr> <tr> <td>Skin sensitization</td> <td>1</td> <td>H317</td> </tr> </tbody> </table>	<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Hazard Statement</u>	Eye irritation	2	H319	STOT SE	3	H335	Skin irritation	2	H315	Skin sensitization	1	H317
<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Hazard Statement</u>														
Eye irritation	2	H319														
STOT SE	3	H335														
Skin irritation	2	H315														
Skin sensitization	1	H317														
2.1.2	Classification according to Directive 67/548/EEC (See SECTION 16 for full text of risk phrases) Irritant; Xi; R 36/37/38-43															
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>															
	H319: Eye irritation. 2. May cause eye irritation.															
	H335: STOT SE. 3. May cause respiratory irritation.															
	H315: Skin irritation. 2. May cause skin irritation.															
	H317: Sensitization. 1. May cause an allergic skin reaction.															
	<b>Precautionary Statements</b>															
	P261: Avoid breathing vapor.															
	P280: Wear protective gloves and eye protection															
	P305+P351: If in eyes, rinse cautiously with water for several minutes.															
	P337+P313: If eye irritation persists, get medical advice/attention.															
	P302+P352: If on skin, wash with plenty of soap and water.															
	P333+P313: If irritation or rash occurs, get medical advice/attention.															
	P410+P411: Protect from sunlight. Store at temperature not exceeding 27°C / 80°F.															

**Safety Data Sheet**Trade Name: **ORTHO-CHOICE™ ORTHO-COAT™**

3.0 Composition				
3.1	Chemical characterization of the preparation: Light cured, acrylate resins			
3.2	Hazardous ingredients			
CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1272/2008 (CLP)
Proprietary	Uncured acrylate resins	55-65%	Xi (Irritant), R36/37/38, R43	Eye irritation, 2, H319 STOT SE 3, H335 Skin irritation, 2, H315 Skin sensitization, 1, H317
112945-52-5	Amorphous silica	<1 %	Xi (Irritant), R36/37/38	Eye irritation, 2, H319 STOT SE 3, H335 Skin irritation, 2, H315
7664-39-3	Hydrofluoric acid	0.3%	R36/38	Eye irritation, 2, H319 Skin irritation, 2, H315
4.0 First Aid Measures				
4.1	General Information	May be irritating to eyes, respiratory system and skin. Prolonged or repeated contact with acrylate resins may cause sensitization. Show this safety data sheet to medical personnel. Get medical attention in case of uncertainty.		
4.2	Inhalation	Move to fresh air. If necessary, administer oxygen and/or artificial respiration and seek medical attention.		
4.3	Skin Contact	Take off contaminated clothing. Wash skin thoroughly with soap and water.		
4.4	Eye Contact	Keep eyelids apart and flush with running water for 15+ minutes. Get medical attention.		
4.5	Ingestion	Rinse mouth with water. Do not induce vomiting. Get immediate medical attention. May be irritating to mucous membranes. Never give anything by mouth to an unconscious person.		
4.6	Precautions for first responders	Ventilate the area. Wear eye and skin protection.		
4.7	Information for physicians			
	Symptoms	Irritation or redness in eyes, throat or on skin.		
	Hazards	May be irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.		
	Treatment	As above under First Aid.		
5.0 Fire Fighting Measures				
5.1	Suitable extinguishing media	Carbon dioxide, dry chemical, alcohol foam, or water fog. Water spray may be used to keep fire exposed containers cool.		
5.2	Extinguishing media to avoid	Do not use direct water stream		
5.3	Special exposure hazards in a fire	Heat may cause polymerization with rapid release of energy.		
5.4	Special protective equipment for fire-fighters	Self-contained breathing apparatus should be worn by firefighters.		

**Safety Data Sheet**Trade Name: **ORTHO-CHOICE™ ORTHO-COAT™**

<b>6.0</b>	<b>Accidental Release Measures</b>	
6.1	Personal precautions.	Ventilate area. Wear safety glasses, gloves and lab coat.
6.2	Environmental precautions	Contain spilled material. Follow all government regulations.
6.3	Method for clean up	Absorb or wipe up spill with paper towels or cloths. Collect for disposal in a covered container. Wash area of spill with alcohol or soap and water.
<b>7.0</b>	<b>Handling and Storage</b>	
7.1	Handling	For use only by dental professionals trained in its use. Follow good hygiene practices. Remove applicator tip from syringe and recap immediately after use. Keep light-cured materials shaded from intense light sources.
7.2	Storage	Store product tightly capped in original container at cool room temperature (<25°C). Avoid direct, strong light, sources of ignition, temperature extremes (>27°C/80°F, <5°C/40°F). Shelf life for unopened product is two years from date of manufacture, provided that the material has been stored properly.
7.3	Specific uses	Dental material
<b>8.0</b>	<b>Exposure Controls / Personal Protection</b>	
8.1	Exposure limit values	Silica amorphous: PEL: 6 mg/m <sup>3</sup> . TLV: 10 mg/m <sup>3</sup> Hydrofluoric acid: PEL/TLV: 3 ppm
8.2	Exposure controls	
8.2.1	Occupational exposure controls	No special equipment required under normal conditions of use.
8.2.1.1	Respiratory protection	Good general ventilation is sufficient to control any airborne vapors.
8.2.1.2	Hand protection	No special requirements other than the usual surgical gloves.
8.2.1.3	Eye protection	No special requirements other than the usual safety glasses.
8.2.1.4	Skin protection	Good personal hygiene and safety practices; wearing a lab coat.
8.2.1.5	Other controls	Emergency eye wash fountain should be available. Wash hands after use.
8.2.2	Environmental exposure controls	Cure material before disposing. To the best of our knowledge, cured material is inert. Follow all government regulations.
<b>9.0</b>	<b>Physical and Chemical Properties</b>	
9.1	Characteristics	.
9.1.1	Appearance /Color / Physical state	Clear resin
9.1.2	Odor	Faint, characteristic
9.2	Important health, safety and environmental information	
9.2.1	pH	Not determined
9.2.2	Boiling point	Not determined
9.2.3	Flash point	Not determined
9.2.4	Flammability (solid, gas)	Not applicable
9.2.5	Explosive properties	Not applicable

**Safety Data Sheet**Trade Name: **ORTHO-CHOICE™ ORTHO-COAT™**

9.2.6	Oxidizing properties	Not determined
9.2.7	Vapor pressure	< 1 mm Hg / 133 Pa / Id: B
9.2.8	Specific gravity	Not determined
9.2.9	Solubility in water	Nil
9.2.10	Partition coefficient	Not determined
9.2.11	Viscosity	Not determined
9.2.12	Vapor density	> 1
9.2.13	Evaporation rate	Not determined
<b>10.0 Stability and reactivity</b>		
10.1	Conditions to avoid	Temperature extremes (>27°C/80°F, <5°C/40°F), light.
10.2	Materials to avoid	Reducing and oxidizing agents, peroxides, amines.
10.3	Hazardous decomposition products	Under fire conditions and with amounts far greater than in this product, hazardous polymerization may occur with heat buildup, release of carbon monoxide, carbon dioxide, oxides of nitrogen.
10.4	Further information	Light-cured materials polymerize when exposed to direct light.
<b>11.0 Toxicological information</b>		
11.1	Acute toxicity	Not toxic. Minimal health hazard in the quantities present in this product and under normal conditions of use.
11.2	Irritation and corrosiveness	May be irritating to eyes, mucous membranes or skin on contact or with prolonged exposure.
11.3	Sensitization	May be sensitizing. Prolonged or frequent skin contact may cause allergic skin reactions in some susceptible individuals.
11.4	Sub-acute, sub-chronic and prolonged toxicity	Prolonged/frequent skin contact may cause allergic skin reactions in susceptible individuals. Prolonged exposure to amounts greater than in this product may cause eye and respiratory irritation.
11.5	Carcinogenicity, Mutagenicity, Reproductive Toxicity	None known.
11.6	Empirical data	None available.
11.7	Clinical experience	Ortho-Coat been sold on the domestic and international market for more than 8 years with no reports of adverse events.
<b>12.0 Ecological Information</b>		
12.1	Ecotoxicity	To the best of our knowledge, polymerized material is inert. No other information is available.
<b>13.0 Disposal Considerations</b>		
13.1	Regulations	Polymerize before disposal. Follow all local and national government regulations in disposing material or contaminated packaging.
<b>14.0 Transport Information</b>		
14.1	Restrictions	None. Not regulated.

**Safety Data Sheet**Trade Name: **ORTHO-CHOICE™ ORTHO-COAT™**

15.0 Regulatory Information	
15.1	EU Class IIa medical device under MDD 93/42/EEC.
15.2	US FDA Class II medical device
15.3	Health Canada Class III medical device
16.0 Other information	
16.1	List of relevant R phrases R36/37/38: Irritating to eyes, respiratory system and skin. R43: Sensitizing by skin contact
16.2	Hazard Statements H319: Eye irritation. Hazard category 2. H335: Specific Target Organ Toxicity - Single exposure; hazard category. 3. Respiratory tract irritation. H315: Skin irritation. Hazard category 2. H317: Skin Sensitization. Hazard category 1.
16.3	Precautionary Statements P261: Avoid breathing vapor. P280: Wear protective gloves and eye protection P305+P351: If in eyes, rinse cautiously with water for several minutes. P337+P313: If eye irritation persists, get medical advice / attention. P302+P352: If on skin, wash with plenty of soap and water. P333+P313: If irritation or rash occurs, get medical advice / attention. P410+P411: Protect from sunlight. Store at temperature not exceeding 27°C / 80°F.
16.4	Restrictions on use Pulpdent products are to be sold to and used by dental professionals only.
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.
16.6	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
16.7	Information which has been added, deleted or revised. This Safety Data Sheet has been revised to meet the requirements of GHS SDS format and 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.