

Trade Name: **Eugenol**

1.0 Commercial Product Name and Supplier																											
1.1	Commercial product name / designation	Eugenol																									
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, Importer																										
1.3.1	Manufacturer																										
	Pulpdent Corporation	Telephone: 1 617 926-6666																									
	80 Oakland Street	Fax: 1 617 926-6262																									
	P.O. Box 780	Email: Pulpdent@pulpdent.com																									
	Watertown, MA 02472 USA																										
1.4	Emergency Telephone Number	1-800-535-5053 (24 Hour / USA)																									
1.5	Authorized European Representative																										
	International Business Solutions Ltd.	Tel: 07989 407479 / Fax: 01256 350330																									
	54 Mayfield Ridge	Email: s.williams5@btconnect.co.uk																									
	Hatch Warren, Basingstoke, RG22 4RS UK																										
2.0 Hazards Identification																											
2.1	Classification																										
2.1.1	Classification according to Regulation (EC) No 1272/2008 [CLP]	<table><tr><th>Hazard Class</th><th>Hazard Category</th><th>Hazard Statement</th></tr><tr><td>Acute toxicity, Oral</td><td>4</td><td>H302</td></tr><tr><td>Eye irritation</td><td>2A</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><tr><td>Respiratory sensitization</td><td>1</td><td>H334</td></tr><tr><td>Acute aquatic toxicity</td><td>3</td><td>H402</td></tr></table>	Hazard Class	Hazard Category	Hazard Statement	Acute toxicity, Oral	4	H302	Eye irritation	2A	H319	STOT SE	3	H335	Skin irritation	2	H315	Skin sensitization	1	H317	Respiratory sensitization	1	H334	Acute aquatic toxicity	3	H402	
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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 36/37/38-42/43																									
2.2	GHS Label Elements																										
	Hazard Pictograms																										
																											
	Signal Word: DANGER																										
	Restricted to use by dental professional only.																										
	Hazard Statements																										
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Precautionary Statements

P261: Avoid breathing vapor.

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.

P342+P311: If experiencing respiratory symptoms, call a poison center or doctor/physician.

3.0	Composition				
3.1	Chemical characterization of the preparation:				
3.2	Hazardous ingredients				
	CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1278/2008 (CLP).
	97-53-0	Eugenol [2-Methoxy-4-(2-propenyl) phenol]	85-95%	Irritant; Xi, R 36/37/38-42/43	Acute toxicity, Oral 4 Eye irritation 2A STOT SE 3 Skin irritation 2 Skin sensitization 1 Respiratory sensitization 1 Acute aquatic toxicity 3
4.0	First Aid Measures				
4.1	General Information		Consult a physician. May be irritating to eyes, respiratory system and skin. Do not inhale vapors. Liquid may cause sensitization by skin contact or inhalation. Show this safety data sheet to medical personnel.		
4.2	Inhalation		Move to fresh air. If necessary, administer oxygen / artificial respiration and seek medical attention.		
4.3	Skin Contact		Take off contaminated clothing. Wash skin thoroughly with soap and water for 15 minutes. Seek medical attention.		
4.4	Eye Contact		Keep eyelids apart and flush with running water for 15+ minutes. Get medical attention. Continue rinsing eyes during transport to hospital.		
4.5	Ingestion		Rinse mouth with water. Do not induce vomiting. Get immediate medical attention. May be irritating to mucous membranes.		
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. Allergy or asthma symptoms		
	Hazards		May be irritating to eyes, respiratory system and skin. May cause sensitization by skin contact or inhalation.		
	Treatment		As above under First Aid.		
5.0	Fire Fighting Measures				
5.1	Suitable extinguishing media		Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.		
5.2	Extinguishing media to avoid		None		
5.3	Special exposure hazards in a fire		Burning liberates carbon monoxide, carbon dioxide and smoke.		
5.4	Special protective equipment for fire-fighters		A self-contained breathing apparatus should be worn by firefighting		

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personnel. Cool exposed containers with water spray.

6.0	Accidental Release Measures	
6.1	Personal precautions.	Ventilate area. Wear gloves, lab coat and safety glasses. Avoid breathing vapors, mist or gas. Evacuate personnel to safe areas.
6.2	Environmental precautions	Contain spilled material. Do not allow discharge into drains or the environment. Follow all government regulations.
6.3	Method for clean up	Soak up with inert, absorbent material (paper towels, etc.). Collect for disposal in a covered container kept in a cool place. Wash area of spill with soap and water, as the surface will be very slippery.
7.0	Handling and Storage	
7.1	Handling	Follow good hygiene practices. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Cap immediately after use.
7.2	Storage	Keep containers tightly closed. Store in original container at cool room temperature (<25°C) and in a dry, well-ventilated area. Avoid direct, strong light, sources of ignition and extremes of temperature (>27°C/80°F, <5°C/40°F). Provided that the material has been stored properly, shelf life for unopened eugenol is three years from date of manufacture.
7.3	Specific uses	
8.0	Exposure Controls / Personal Protection	
8.1	Exposure limit values	Contains no substances with occupational exposure elements.
8.2	Exposure controls	
8.2.1	Occupational exposure controls	.
8.2.1.1	Respiratory protection	Good general ventilation is sufficient to control any airborne vapors during normal conditions of use.
8.2.1.2	Hand protection	Handle with gloves to limit contact with material.
8.2.1.3	Eye protection	Safety glasses and/or face shield
8.2.1.4	Skin protection	Wear a lab coat. Practice good personal hygiene and safety practices to protect from unnecessary exposure to material.
8.2.1.5	Other controls	Emergency eye wash fountain. Wash hands after use.
8.2.2	Environmental exposure controls	Should not be discharged into drains or the environment.
9.0	Physical and Chemical Properties	
9.1	Appearance / Color	Clear, oily liquid
9.1.1	Color	Colorless to pale yellow
9.1.2	Odor	Cloves
9.2	Important health, safety and environmental information	
9.2.1	pH	7.0
9.2.2	Boiling point	253°C
9.2.3	Flash point	112°C
9.2.4	Flammability (solid, gas)	Not applicable

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9.2.5	Explosive properties	Not applicable
9.2.6	Oxidizing properties	Not an oxygen donor
9.2.7	Vapor pressure	< 0.1 mm Hg
9.2.8	Specific gravity	1.064 g/cc ³
9.2.9	Solubility in water	Slight
9.2.10	Partition coefficient (n-octanol/water)	log Pow: 2.7
9.2.11	Viscosity	Not determined
9.2.12	Vapor density	Not determined
9.2.13	Evaporation rate	Not determined
10.0 Stability and reactivity		
10.1	Conditions to avoid	Temperature > 38°C, light, air
10.2	Materials to avoid	Strong oxidizing agents, ferric chloride, potassium permanganate.
10.3	Hazardous decomposition products	Carbon monoxide and carbon dioxide.
10.4	Further information	Stable under recommended storage conditions.
11.0 Toxicological information		
11.1	Acute toxicity	LD ₅₀ Oral – rat: 1930 mg/kg
11.2	Irritation and corrosiveness	May be irritating to eyes, respiratory system or skin on contact or with prolonged exposure.
11.3	Sensitization	May be sensitizing by inhalation or skin contact.
11.4	Sub-acute, sub-chronic and prolonged toxicity	Prolonged exposure may cause skin, eye and respiratory irritation.
11.5	Carcinogenicity, Mutagenicity, Reproductive Toxicity	None known
11.6	Empirical data	Not available
11.7	Clinical experience	
12.0 Ecological Information		
12.1	Ecotoxicity	Harmful to aquatic life.
13.0 Disposal Considerations		
13.1	Regulations	Follow all local and national government regulations in disposing material or contaminated packaging.
14.0 Transport Information		
14.1	Restrictions	Not regulated by US DOT, IMDG or IATA
15.0 Regulatory Information		
15.1	OSHA Hazards	Target organ effect, Harmful by ingestion.
15.2	SARA 302 Components	Not subject to reporting requirement of SARA, Title III, Section 302

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15.3 SARA 313 Components Does not exceed the threshold (De Minimis) reporting levels of SARA, Title III, Section 313.

15.4 SARA 311/312 Hazards Acute health hazard, Chronic health hazard

16.0 Other information

16.1 List of relevant R phrases R36/37/38, Irritating to eyes, respiratory system and skin.
R42/43, May be sensitizing by inhalation or skin contact.

16.2 Hazard Statements H302: Harmful if swallowed
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16.4 Restrictions on use

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 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.
