

ROYDENT Dental Products

Safety Data Sheet

Date Issued: 08/15/2014
Document Number: SDSRBond
Date Revised:
Revision Number: 0

1. PRODUCT IDENTIFICATION

Trade Name (as labeled): R-Bond (Chemlock Bonding Enhancer)
Chemical Name/Classification: PMGDM in acetone base
Product Identifier (Part/Item Number): 702
U.N. Number: 1090
U.N. Dangerous Goods Classification: 3
Recommended Use: Dental Material Bonding Enhancer
Restrictions on Use: For use by Dental Professionals only
Distributed by: Roydent Dental Products
Distributors Address: 608 Rolling Hills Dr., Johnson City, TN 37604
Distributor Telephone Number: 1-800-992-7767 (Product Information)
Emergency Contact Telephone Number: Chemtrec (800) -262-8200
Email address: Chemtrec@chemtrec.com

2. HAZARD(S) IDENTIFICATION

Hazard/Danger Classification:

Health	Environmental	Physical
R36, R66, R67, S26	R11, S16	S2, S9

Associated Hazards:

Hazard Statements	Precautionary Statements
H320, H225	P210



ROYDENT Dental Products

EU Classification: F, Xi

EU Risk (R) and Safety (S) Phrases: R11, R36, R66, R67, S16, S2, S9, S26

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Components	C.A.S. # EC#	IUPAC Name	Substance Classification	WT %
N-[2-hydroxy-3-[(2-methyl-1-oxoallyl)oxy]propyl]-N-(4-methylphenyl)glycine	83418-59-1 280-450-4	NTG-GMA	Not Classified	Not determined
Bis (Glyceryl Dimethacrylate) Pyromellitate	148019-46-9	PMGDM	Not Classified	Not determined
Acetone	67-64-1 200-662-2	Acetone	F; R11- Xi; R36 - R66 - R67	Not determined

Refer to Section 16 for the full text of the GHS and H phrases and EU Classifications and R Phrases.

4. FIRST-AID MEASURES





Routes of Exposure	First Aid Instructions
Eye	Flush eyes with copious amounts of water for 15 minutes. Seek medical attention
Skin	Wash thoroughly with soap and water. If irritation develops or persists, seek medical attention.
Inhalation	Move exposed person to fresh air: if difficulty breathing, give oxygen and seek medical attention
Ingestion	Of significant quantity: If person is conscious, dilute by drinking water. Induce vomiting with syrup of ipecac. Give activated charcoal. Obtain emergency medical attention.
Most important symptoms of exposure	Irritation
Other	na
Note to Physicians (Treatment, Testing, and Monitoring) Treat Symptomatically	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use dry chemical, CO2, alcohol resistant foam, water spray
Fire Fighting Procedures:	Use water to keep containers cool. Firefighters should wear self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes, or hazardous decomposition products
Specific Hazards Arising from the Chemical:	Thermal decomposition products may include toxic oxides of carbon.

ROYDENT Dental Products

Precautions for Fire Fighters:	Heat, aging or contamination can lead to explosive polymerization
---------------------------------------	---

Recommended Protective Equipment for Fire Fighters:			
EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE and Emergency Procedures: Protectant Glasses/Goggles, Gloves, Mask

Environmental Precautions: None Determined

Methods and Materials for Containment and Clean-up: Absorb with inert material, such as paper towels. Place all absorbent material in closed container away from heat, sparks and flame. Wash area of spill with soap and water.

Recommended Personal Protective Equipment for Containment and Clean-up:		
EYES/FACE	SKIN	RESPIRATORY
	 	




7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin or clothing. Avoid breathing the vapors. Wash hands after use

Conditions for Safe Storage: Avoid heat, sparks, flames and incompatible substances. Ground metal container. Store at room temperature. Avoid contamination. Empty containers may contain residual product and should be handled appropriately

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ROYDENT Dental Products

Occupational Exposure Limits: None determined		
Biological Exposure Limits: None Determined		
Appropriate Engineering Controls: NA		
Individual Protection Measures (PPE) Specific Eye/face Protection: Safety Glasses/Goggles Specific Skin Protection: Protective Gloves Specific Respiratory Protection: Not necessary under normal conditions of use of this product. The usual surgical mask worn by dental staff is adequate. Specific Thermal Hazards: None determined		
Recommended Personal Protective Equipment		
EYES/FACE	SKIN	RESPIRATORY
		
Environmental Exposure Controls: None Determined		
General Hygiene Considerations and Work Practices: Wash hands after use.		
Protective Measures During Repair and Maintenance of Contaminated Equipment: Safety Glasses/Goggles, Protective Gloves, and Mask		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Thin Liquid	Explosive limits:	Not determined
Odor:	Sweet Mint-like, Acetone Odor	Vapor pressure:	180 mm Hg
Odor threshold:	20 ppm	Vapor density:	2.0
pH:	Not determined	Relative density:	Not determined
Melting/freezing point:	-94°C	Solubility:	Very Soluble
Initial boiling point and range:	Not Determined	Partition coefficient: n-octanol/water:	NA
Flash point:	-18°C (0°F)	Auto-ignition temperature:	Not Determined

ROYDENT Dental Products

Evaporation rate:	6	Decomposition temperature:	Not Determined
Flammability:	Yes	Viscosity:	Not Determined
Explosive Properties:	Not Determined	Oxidizing Properties:	Not Determined

10. STABILITY AND REACTIVITY

Reactivity: Stable
Chemical Stability: Stable under normal conditions of use and storage
Possibility of Hazardous Reactions: May occur.
Conditions to Avoid: Heat, sparks and flames, ungrounded metal containers, contamination. Use promptly.
Incompatible materials: Acids, bases, amines, bromines, chloroform, hydrogen peroxide, strong oxidizers. plastics, rayon, ketones, acetaldehyde.
Hazardous Decomposition Products: Thermal decomposition products may include toxic oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Signs and Symptoms of Overexposure: May be irritating to eyes, skin or respiratory tract							
Emergency Overview: NA							
Likely Routes of Exposure	Signs and Symptoms	Single, Repeated, or Lifetime Exposure	Severity (Mild, Moderate, Severe)	Acute and Chronic Health Effect(s)	Target Organ(s)	LD50 Testing Data (as applicable)	LC50 Testing Data (as applicable)
Eye:	Irritation	Single	Moderate	NA	Eyes	NA	NA
Skin:	Irritation	Single	Mild	NA	Skin	NA	NA
Inhalation:	Irritation	Repeated	Mild	NA	Mucus Membranes	NA	NA
Ingestion:	Irritation	Single	Mod/Severe	NA	Throat/Stomach	NA	NA
Other:	NA	NA	NA	NA	NA	NA	NA
Medical Conditions Aggravated by Exposure: Persons with chronic respiratory or skin disease are at increased risk with prolonged exposure to acetone							
Carcinogenicity: Not known to be a carcinogen							

12. ECOLOGICAL INFORMATION

ROYDENT Dental Products

Toxicity: Only in extreme high levels of exposure

Persistence and Degradability: Not Determined

Bio-accumulative Potential: Not Determined

Mobility in Soil: Not Determined

Other Adverse Effects: None Determined

Results of PBT/vPvB Assessment: Not Determined

13. DISPOSAL CONSIDERATIONS

Regulations: Dispose in accordance with current local, state and federal regulations. Keep spills out of sewers and open bodies of water

Properties (Physical/Chemical) Affecting Disposal: None

Waste Treatment Recommendations: None

14. TRANSPORT INFORMATION

UN Identification Number: 1090

UN Proper Shipping Name: Acetone

Transport hazard class(es): 3

Packing Group: II

Special precautions for user: Keep away from heat/sparks/open flames/hot surfaces – No smoking



15. REGULATORY INFORMATION

U.S. Federal Regulations

ROYDENT Dental Products

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): NA

Toxic Substances Control Act (TSCA): NA

Clean Water Act (CWA): NA

Clean Air Act (CAA): NA

Superfund Amendments and Reauthorization Act (SARA) Title III Information: NA

SARA Section 311/312 (40 CFR 370) Hazard Categories: NA

Immediate Hazard:	NA	Pressure Hazard:	NA
Delayed Hazard:	NA	Reactivity Hazard:	NA
Fire Hazard:	NA		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
NA	NA	NA

State Regulations

California: This product contains the following chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm:

Components	C.A.S. #	WT %
NA	NA	NA

International Regulations

Canadian Environmental Protection Act: NA

Canadian Workplace Hazardous Materials Information System (WHMIS): B-2, D-2

European Inventory of Existing Chemicals (EINECS): 200-662-2

16. OTHER INFORMATION

Full text of Classification abbreviations used in Section 2 and 3:

R11 : Highly flammable.

R36 : Irritating to eyes.

R66 : Repeated exposure may cause skin dryness or cracking.

R67 : Vapors may cause drowsiness and dizziness.

S2 : Keep out of the reach of children.

S9 : Keep container in a well-ventilated place.

S16 : Keep away from sources of ignition - No smoking.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

H320: Causes eye irritation

H225: Highly flammable liquid and vapor

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking

ROYDENT Dental Products

Date of SDS Preparation/Revision: 8/15/2014 rev0

Data Sources: Supplier

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 Roydent Dental Products bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.