

SAFETY DATA SHEETS

This SDS packet was issued with item:

071800341

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071800317 071800416

DENTSPLY/International
DENTSPLY/Caulk
Safety Data Sheet

551898

1. Identification

Product Name Orthodontic Resin Liquid	MSDS Code Number 551898
Trade Name & Synonyms Orthodontic Resin Liquid	Date of Last Revision 12/01/09
Manufacturer: DENTSPLY Caulk	Address 38 West Clarke Avenue Milford DE 19963-1805 http://www.caulk.com http://www.dentsply.com
Grades or Minor Variant Identities Pink or Clear	Information Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
Product Use (for Canada) Denture Acrylic Resin	Emergency Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

2. Hazard(s) Identification



Danger
Highly Flammable
Liquid and Vapour



WARNING
MAY CAUSE AN ALLERGIC SKIN REACTION

3. Composition/Information on Ingredients

Hazardous Components	C.A.S. Number	Exposure Limits	%
Methyl methacrylate	80-62-6	50 ppm	> than 90
Dimethyl – p – toluidine	99-97-8	2 mg/M ³	< than 2

4. First Aid Measures

Routes of Exposure	First Aid Instructions	Immediate Medical Attention	Delayed Effects
Eye	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If symptoms persist consult physician	Get medical aid immediately.	None known
Skin	Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse.	Get medical aid.	Allergic reaction possible
Inhalation	Move to fresh air immediately. If breathing is difficult give oxygen. If not breathing, give artificial respiration. Do not use mouth to mouth resuscitation. Instead apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Consult physician if symptoms persist	Get medical aid immediately.	Allergic reaction possible
Ingestion	If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.	Get medical aid.	Allergic reaction possible
Other	Not Applicable	Not Applicable	Not Applicable
Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically.			

5. Fire Fighting Measures

Flashpoint Method: 13°C (55°F) TOC	Flammable (Explosive) Limits in Air LEL: 2.1% UEL: 12.5%	Autoignition Temperature: N. A. 435°C (815°F)	Other: Not Applicable
Flame Propagation or Burning Rate (for Solids) Not Known	Properties Contributing to Fire Intensity: Not known	Flammability Classification: NFPA Flammability = 3	
Extinguishing Media: Water spray, alcohol resistant foam, carbon dioxide, dry chemical.		Extinguishing Media to Avoid: Water with full jet.	
Protection and Procedures for Firefighters: As in any fire, firefighters should wear self-contained respiratory protective devices. Formation of toxic, irritating gases is possible from the decomposition of the polymer.			
Unusual Fire and Explosion Hazards: Dusts may be combustible when exposed to heat, flame, or oxidizing agents. Although the polymer dust is not easily ignited, the explosive limits of the polymer dust suspended in air are approximately those of coal dust therefore, fire fighters should avoid extinguishing methods which generate dust clouds. Formation of toxic, irritating gases is possible from the decomposition of the polymer. In routine use this product does not present an explosion hazard.			

6. Accidental Release Measures

Containment Techniques: Absorb spill with inert material (such as vermiculite, activated carbon absorbent, sand or earth), then place in the container. Do not flush into sewer.		
Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and scoop up bulk material and place in a labeled plastic or metal container. Avoid gross skin contact to minimize the possibility of contact dermatitis to susceptible persons. Polymer particles are slippery when spilled on hard floor so sweep immediately and wash area with water to avoid accidental falls. Keep exposure to airborne particles to a minimum when cleaning by using proper ventilation as discussed in section 8.		
Evacuation Procedures: Not Applicable	Special Instructions: Not Applicable	Reporting Requirements: Not Applicable

7. Handling and Storage

Handling Practices and Warnings: Avoid inhalation and contact with eyes. Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals.
Storage Practices and Warnings: Store in a cool, dry, well ventilated area. Store only in the original package. Keep package tightly sealed to prevent water absorption and contamination. Keep out of direct sunlight. Store away from food and beverages.

8. Exposure Control / Personal Protection



Occupational Exposure Limits: Not Applicable		
Engineering Controls: Not Applicable		
Individual Protection Measures	Personal Protective Equipment for Normal Use	Personal Protective Equipment for Emergencies
Eye/Face	Wear appropriate protective eyeglasses or safety glasses to prevent exposure during normal use.	For emergency or higher risk of exposure, wear chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin	During normal use, disposable gloves are recommended to prevent skin exposure.	For emergency or higher risk of exposure, wear protective gloves to prevent skin exposure and wear a lab coat to prevent contamination of your clothing. Wash contaminated clothing before reuse.
Inhalation	During normal use with local exhaust, use of a dust mask will provide additional protection.	For emergency or higher risk of exposure, (for example when obvious dust cloud is observed), follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN149. Always use a NIOSH or European Standard EN149 approved respirator when necessary.
Body Protection	Protective work clothing	Not Applicable

9. Physical and Chemical Characteristics

Appearance: Clear or Pink liquid.		Odor: Characteristic methacrylate ester odor
Normal Physical State: Liquid		Melting Point: Not Applicable
Specific Gravity: 1.0 g/cm ³	pH: Not Applicable	Vapor Pressure (mm Hg): Not Established
Evaporation Rate (Butyl Acetate =1): Not Applicable		Decomposition Temperature: 200°C (392°F)
Other: Not Applicable		

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Visible light, high temperatures, strong acids, strong oxidizing agents.	
Hazardous Products Produced During Decomposition: Methacrylates, acrylates, carbon dioxide, carbon monoxide, peroxides and irritating gases.	
Hazardous Polymerization: <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> May Not Occur	Conditions to Avoid: High Temperatures, ignition sources.
Stability? <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions to Avoid: High Temperatures, ignition sources.

11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data: Product may be an irritant to the skin in susceptible persons. On the eye the product has an irritating effect. Certain susceptible persons may be sensitized or allergic to acrylates and methacrylates.					
Emergency Overview: Liquid and vapor are flammable. Heating, sunlight or contact with incompatible materials may cause explosive polymerization. May form explosive peroxides. Liquid is not known to cause significant health problems, however can be harmful if swallowed or inhaled (affects central nervous system). Causes irritation to skin eyes and respiratory tract. May cause allergic skin reaction! May be harmful if absorbed through skin. Warning target Organs: Kidneys, central nervous system, liver, and skin.					
Routes of Exposure	Signs and Symptoms	Single, Repeated, or Lifetime Exposure	Severity (Mild, Moderate, Severe)	Acute and Chronic Health Effect(s)	Target Organ(s)
Eye	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If symptoms persist consult physician	Get medical aid immediately.	None known	Irritation and possible corneal damage	Yes

Skin	Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse.	Get medical aid.	Allergic reaction possible	Irritation or possible allergic response. Severe allergic response may result in breathing difficulties.	Yes
Inhalation	Move to fresh air immediately. If breathing is difficult give oxygen. If not breathing, give artificial respiration. Do not use mouth to mouth resuscitation. Instead apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Consult physician if symptoms persist	Get medical aid immediately.	Allergic reaction possible	Chronic inhalation may cause effects similar to those of acute inhalation. Causes respiratory tract irritation. May cause motor in coordination and speech abnormalities.	Yes
Ingestion	If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.	Get medical aid.	Allergic reaction possible	Not Applicable	No
Other: Central nervous system	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Medical Conditions Aggravated by Exposure Open sores and wounds of the skin. Individuals with known sensitivity to methacrylates, acrylates, or urethane dimethacrylate resin used in Dental restorative products.					
Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No. All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.					
Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.					
NFPA Hazard Classification Ratings (Scale 0-4) Health =2, Fire =3, Reactivity=2 Specific Hazard = None					

12. Ecological Information



Danger
Hazardous to aquatic life

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class I (Self-assessment): CAS# 80-62-6 Methyl Methacrylate: is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

13. Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations.

Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.
RCRA P-Series: None Listed, RCRA U-Series CAS#80-62-6: Waste Number U162 (Ignitable Waste)

14. Transport Information



Flammable Liquid

Regulated for Shipping: Yes	DOT Shipping Name: Methyl Methacrylate Monomer, Stabilized Solution	Packing Group: II
Do Changes in Quantities, packaging, or shipment method change product classification? Yes	DOT Hazard Class: 3	UN Number: UN1247
DOT Labels Required (49CFR172.101): Yes	Other: Not Applicable	

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: CAS# 80-62-6: RQ is 1000 lb. final RQ: 454 kg final RQ.
Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements:

CAS# 80-62-6 Methyl Methacrylate which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
SARA Codes: CAS# 80-62-6 Methyl Methacrylate: acute, chronic, flammable, reactive.
Section 302 Extremely Hazardous Substances (TPQ): None
Clean Air Act: CAS# 80-62-6 Methyl Methacrylate: is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 ozone depleters. This material does not contain any Class 2 depleters.
Clean Water Act: CAS# 80-62-6 Methyl Methacrylate: is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: OSHA does not consider CAS# 80-62-6 Methyl Methacrylate highly hazardous.
RCRA U-Series Hazardous Waste Code for CAS# 80-62-6 Methyl Methacrylate: U162
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.
State CAS# 80-62-6 Methyl Methacrylate can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota and Massachusetts.
U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California Proposition 65 list.
International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.
WGK (Water Danger/Protection) Pure Methyl Methacrylate, CAS # 80-62-6: 1
Canada – DSL/NDL CAS # 80-62-6 is listed on Canada's DSL List.
Canada – WHMIS This product has a WHNIS Classification of B2, D2B.
European Community Labeling: in accordance with EC Directives: Hazard Symbol for pure Methyl Methacrylate XI F Risk Phrases: R11 Highly Flammable, R37/38 Irritating to respiratory system and skin. R43 May cause sensitization by skin contact. Safety Phrases: S24 Avoid contact with skin. S37 Wear suitable gloves. S46 If swallowed, seek medical advice immediately.
European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements.
Other: N. A.

16. Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex. All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.