

ivoclar vivadent
 175 Pineview Drive, AMHERST NY 14228
 23 Hannover Drive, ST. CATHARINES, ONTARIO L2W 1A3

MSDS
 Material Safety Data Sheet
 For emergency only call INFOTRAC: 1-800-535-5053
 In Canada, call CANUTEC: 613-996-6666

4 Seasons
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FOR PROFESSIONAL DENTAL USE ONLY

Section 1: Product Identification & Use Resin-Based dental restorative material

Product **4 Seasons**

Product # 559645, 562242, 572865, 574015 - 574018
 574041 - 574096, 574099 - 574120

Section 2.1: Hazardous Ingredients

Component	% Range	CAS#	PEL*	TLV*	LD50/LC50/TDL _o
Bis-GMA	7-9	1565-94-2	n.av.	n.av.	n.av.
Triethyleneglycol dimethacrylate	3-4	109-16-0	n.av.	n.av.	n.av.
Urethane dimethacrylate	9-11	72869-86-4	n.av.	n.av.	n.av.
High dispersed silica	1-10	112945-52-5	n.av.	n.av.	n.av.
Decandiol dimethacrylate	1-10	6701-13-9	n.av.	n.av.	n.av.

LD-50 oral rat
 > 5,000 mg/kg

Section 2.2: Other Ingredients

Component	% Range	CAS#	PEL*	TLV*	LD50/LC50/TDL _o
Ytterbiumtrifluoride	1-30	13760-80-0	n.av.	n.av.	n.av.

Section 3: Physical Data

Boiling Point °C:	n. av.	Melting Point °C:	n. av.	pH: n. det.
Vapor Pressure mm Hg:	n. ap.	Vapor Density air 1:	n. ap.	
Odor Threshold:	n.av.	Specific Gravity H ₂ O—1g/cm ³ :	2.05-2.25	
Appearance / Odor:	Paste / practically odorless			

Section 4: Fire or Explosion Data

Flash Point °C:	> 150	Autoignition °C:	n. av.	Solubility in water:	< 0.1 %
Flammable Limits % In Air / Upper:	n. av.	Lower:	n. av.		
Extinguisher Media:	Water fog, carbon dioxide, foam, dry chemicals.				
Other Fire and Explosion Hazards:	None				
Hazardous Combustion Products:	None				

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Section 5: Reactivity Data

Chemical Stability:	Stable	If No...Under What Conditions:	n. ap.
Incompatibility with other Substances:	Yes		
If So...Which Ones:	Avoid excessive heat and sunlight.		
Reactivity and Under What Conditions:	Slow polymerization when exposed to heat, sunlight		
Hazardous Polymerization:	Will not occur		

Section 6: Toxicological Properties

Primary Routes of Entry:	Inhalation, ingestion, eyes		
Symptoms of Acute Exposure:	LD-50 (oral rat) is > 5000 mg/kg.		
Symptoms of Chronic Exposure:	Irritation to uncured resins, or mechanical irritation from dust or grindings		
Medical Conditions Generally Aggravated by Exposure:	Uncured material, prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.		
Carcinogen/ Potential Carcinogen:	No	NTP:	No
Teratogenicity:	No	IARC:	No
Embryo Toxin:	No	OSHA Reg.:	No
		Reproductive Toxicity:	No
		Sensitization:	Yes

Section 7: Preventative Measures

Eyes:	Safety goggles	Gloves:	Yes
Ventilation:	Good general ventilation should be sufficient		
Respiratory Protection:	Not required.		
Leak and Spill Procedure:	Clean up mechanically. Dispose of according to local and national regulations.		
Waste Disposal Methods:	Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.		
Storage:	Store at 2-28°C / 36-82°F.		
Shipment:	n. ap.		
Other Preventative Measures:	Avoid inhalation or exposure to light. Only adequately trained personnel should handle this product.		

Section 8: First Aid Measure

Inhalation:	Remove victim to fresh air.
Ingestion:	No hazards anticipated from swallowing small amounts incidentally to normal handling.
Eyes:	Flush with plenty of water. Consult a physician if irritation persists.
Skin:	Wash affected areas with soap and water.

Section 9: Preparation Data

Prepared by:	Anderjeet Gulati (716) 691-0010	Date:	April 11, 2003	Ref:	
Disclaimer:	The information and recommendations are taken from sources believed to be accurate; however, Ivoclar Vivadent, Inc. makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof.				