



175 Pineview Drive, AMHERST NY 14228
2785 Skymark Ave. Unit 1, Mississauga, Ontario L4W 4Y3

M S D S

Material Safety Data Sheet

For emergency only call INFOTRAC: 1-800-535-5053
In Canada, call CANUTEC: 613-996-6666

Valiant PhD®

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FOR PROFESSIONAL DENTAL USE ONLY

Section 1: Product Identification & Use Dental Amalgam

Product Valiant PhD® **Product #**
 Valiant PhD-XT®
 Valiant PhD- EXT®
 Valiant® Sure Cap
 Valiant® Snap-Set

Section 2.1: Hazardous Ingredients

Component	% Range	CAS#	PEL*	TLV*	LD50/LC50/TDL _o
Mercury	40-45	7439-97-6	0.05 **	0.025***	890 mg/m ³ -24H inh-rat

NOTE:

This MSDS addresses the mercury (liquid) portion of the product, which is a known health hazard. The powder is not considered to be hazardous. The health hazard data section references information relative to bulk quantities of elemental mercury and may not reflect the actual hazards of small quantities as contained herein

Section 2.2: Other Ingredients *All Exposure limits are in milligram per cubic meter of air (mg/m³)

Component	% Range	CAS#	PEL*	TLV*	LD50/LC50/TDL _o
Silver	30-60	7440-22-4	.01	0.1	2400 mg/kg imp rat
Tin	20-30	7440-31-5	2.0	2.0	395 g/kg imp rat
Copper	10-15	7440-50-8	1.0	1.0	152 mg/kg oral rat
Palladium	0.0-1	7440-05-03	15.0	10.0	n.av.

* All exposure limits are in milligram per cubic meter of air (mg/m³)

Section 3: Physical Data

Boiling Point °C: 674 °F (mercury only) **Melting Point °C:** -38 °F (mercury only) **pH:** n. av.
Vapor Pressure mm Hg: n. av. **Vapor Density air 1:** n. av.
Odor Threshold: n. a. **Specific Gravity H₂O--1g/cm³:** 13.35 (mercury only)
Appearance / Odor: Amalgam is matte silver color; no odor. Mercury is silvery, mobile, odorless liquid.

Section 4: Fire or Explosion Data

Flash Point °C: n. av. **Autoignition °C:** n. av. **Solubility in water:** 0.0012mm hg @ 68 F
Flammable Limits % In Air / Upper: n. av. **Lower:** n. av.
Extinguisher Media: Carbon dioxide, foam, dry chemicals.
Other Fire and Explosion Hazards: Firefighter should wear self-contained breathing apparatus when fighting a fire in an area containing mercury.
Hazardous Combustion Products:



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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: Mineral acids
Reactivity and Under What Conditions: High temperatures
Hazardous Polymerization: Will Not Occur

Section 6: Toxicological Properties

Primary Routes of Entry: Ingestion, inhalation, eyes, skin
Symptoms of Acute Exposure: Skin/eye irritation. Mercury is corrosive and may cause corneal burns. Ingestion may cause kidney damage.
Symptoms of Chronic Exposure: Findings are extremely variable. Mercury may cause urinary problems, visual disturbances, tremors, salivation, stomatitis, loss of teeth, blue lines on gums or neurotoxic/nephrotoxic effects.
Medical Conditions Generally Aggravated by Exposure: Prolonged or repeated exposure to mercury may cause skin irritation, allergic reaction, respiratory ailments if inhaled, or, in severe cases neurotoxic/nephrotoxic effects

Carcinogen/ Potential Carcinogen:	No	NTP:	No	IARC	No	OSHA Reg.:	No
Teratogenicity:	No	Reproductive Toxicity:	No				
Embryo Toxin:	No	Sensitization:	No				

Section 7: Preventative Measures

Eyes: Safety Glasses with side shields. **Gloves:** Chemical resistant or latex gloves
Ventilation: Use in a well ventilated area to keep exposure limit under 0.025 mg/m3.
Respiratory Protection: Required if airborne TLV is exceeded.
Leak and Spill Procedure: Isolate the area and begin cleanup immediately. Do not touch spilled mercury. Collect the mercury droplets using specialized mercury vacuum cleaner.
Waste Disposal Methods: Dispose of according to all local, state, provincial and federal regulations
Storage: Do not store at temperatures greater than 25°C/ 77°F
Shipment: UN # 2809 - See 49 CFR 173.4
Other Preventative Measures: Use according to directions. Use Universal Precautions suitable to dental practice.

Section 8: First Aid Measure

Inhalation: Remove victim to fresh air. If respiratory irritation is experienced, call a physician.
Ingestion: Consult with physician immediately. Mercury may cause neurotoxic/nephrotoxic effects.
Eyes: Flush eyes with water for 15 minutes, consult physician
Skin: Wash affected area with soap and water. Use hand cream. Consult a physician

Section 9: Preparation Data

Prepared by: Anderjeet Gulati (716) 691-0010 **Date:** October 14, 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.