

MATERIAL SAFETY DATA SHEET

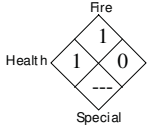
HARRY J. BOSWORTH COMPANY

7227 North Hamlin Avenue

Skokie, Illinois 60076-3999

Information Phone: 847.679.3400

Emergency Phone: 800.535.5053

	HAZARD RATING		
N	4 - EXTREME		
F	3 - HIGH		
P	2 - MODERATE		
A	1 - SLIGHT		
	0 - INSIGNIFICANT		

PRODUCT: **Fastray™ Powder**

DATE PREPARED: 06/17/08

Hazardous Components	
INGREDIENTS: 1. Poly Acrylate Resin 2. Organic Peroxide 3. Pigment	PERCENTAGE: 5.0% 1.0% 0.01-0.20%
COMMON NAMES AND SYNONYMS: 1. Polyethyl methacrylate 2. Dibenzoyl Peroxide 3. Cadmium Pigments(pink shade only)	CAS NUMBER: 1. 26572-20-3 2. 94-36-0 3. 12626-36-7
PEL: 1. 15 mg/m ³ 2. 5 mg/m ³ 3. 0.2 mg/m ³	UN NUMBER: 1. N/A 2. 3102 3. N/A
TLV: 1. N/D 2. 5 mg/m ³ 3. 0.05 mg/m ³ 8 hour - TWA	

Physical/Chemical Characteristics	
BOILING POINT/FLASH POINT: N/D	MELTING POINT N/D
SPECIFIC GRAVITY: (H ₂ O=1) APPROX. 1.82	VAPOR DENSITY (Air = 1) N/D
VAPOR PRESSURE: N/D	EVAPORATION RATE: (Butyl Acetate = 1) N/D
APPEARANCE/ODOR: Fine blue/pink/white powder with faint odor when in bulk.	SOLUBILITY IN WATER: Negligible

Reactivity Data
STABILITY: Stable
CONDITIONS TO AVOID: Heating over 300 °C
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, organic acids, aldehydes and alcohols.
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: N/A

Fire and Explosion Hazard Data	
FLASH POINT: 300 °C	LIMITS: LEL: N/D UEL: N/D
EXTINGUISHING MEDIA: Water, carbon dioxide, dry chemical	
SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus.	
UNUSUAL FIRE AND EXPLOSION HAZARDS: Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust. Fire fighters should wear self-contained breathing apparatus.	

Health Hazard Data	
CARCINOGENICITY: California Proposition 65 Warning: This product may contain a chemical known to the state of California to cause cancer and/or birth defects.	NTP: N/A
IARC: No evidence	OSHA REGULATED: No
Effects and Hazards of Overexposure (Acute and Chronic)	
EFFECTS AND HAZARDS OF EYE CONTACT: May be irritated by gross overexposure	
EFFECTS AND HAZARDS OF SKIN CONTACT: May be irritated by gross overexposure	
EFFECTS AND HAZARDS OF INHALATION (BREATHING): Respiratory track may be irritated by gross over-exposure to particulates.	
EFFECTS AND HAZARDS OF INGESTION (SWALLOWING): No specific intervention is indicated.	

Emergency and First Aid Procedures
TREATMENT FOR EYE CONTACT: Immediately flush eyes with water, contact physician.
TREATMENT FOR SKIN CONTACT: Wash skin with soap and water.
TREATMENT FOR INHALATION (BREATHING): Move to fresh air.
TREATMENT FOR INGESTION (SWALLOWING): Rinse mouth out with water.
Precautions for Safe Handling and Use
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Sweep up with sweeping compound. Avoid dusting.
WASTE DISPOSAL METHOD: May be disposed of in landfill or incinerated. Follow Federal, state and local regulations for disposal.
PRECAUTIONS TO BE TAKEN IN HANDLING AND Handle with care. Store in cool, dry place. Keep container closed to prevent water absorption and contamination.
OTHER PRECAUTIONS: This product is for professional use only as stated in directions. It is the responsibility of the dentist to train personnel.

Control Measures
RESPIRATORY PROTECTION: Use specific type mask for particulates not otherwise classified.
Ventilation
LOCAL EXHAUST VENTILATION Use if necessary.
SPECIAL VENTILATION: Use if necessary.
MECHANICAL (GENERAL) VENTILATION: Use if necessary.
OTHER VENTILATION: Open window if necessary
PROTECTION GLOVES: Use if needed
EYE PROTECTION: Safety glasses
OTHER PROTECTIVE EQUIPMENT: N/A
WORK AND HYGIENIC PRACTICES: Wash hands before eating and smoking

Additional Information	
This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29CFR 1910.1200) and is to be used only for this product. The information contained in this sheet is, to the best of our knowledge, believed to be accurate	
Health Hazard Index:	Ratings:
SEVERE HAZARD	1
SERIOUS HAZARD	2
MODERATE HAZARD	3
SLIGHT HAZARD	4
MINIMUM HAZARD	⑤
Shipping Information	
REGULATED IATA: N/A	
PROPER SHIPPING NAME: N/A	
HAZARD CLASS: N/A	
IDENTIFICATION NUMBER: N/A	
PACKAGING GROUP: N/A	
LABEL: N/A	

To the best of our knowledge, the information contained herein is accurate. However, The Harry J. Bosworth company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MATERIAL SAFETY DATA SHEET

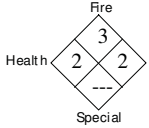
HARRY J. BOSWORTH COMPANY

7227 North Hamlin Avenue

Skokie, Illinois 60076-3999

Information Phone: 847.679.3400

Emergency Phone: 800.535.5053

N F P A	HAZARD RATING		
	4 - EXTREME		
	3 - HIGH		
	2 - MODERATE		
	1 - SLIGHT		
	0 - INSIGNIFICANT		

PRODUCT: **Fastray™ Liquid**

DATE PREPARED: 06/17/08

Hazardous Components	
INGREDIENTS: 1. Methyl Methacrylate 2. Dimethyl Para Toluidine	PERCENTAGE: 96% 4%
COMMON NAMES AND SYNONYMS: 1. Methacrylic Acid Methyl-Ester 2. N-N Dimethyl Para Toluidine	CAS NUMBER: 1. 80-62-6 2. 99-97-8
PEL: 100 ppm/8Hv. TWA	UN NUMBER: 1. UN 1247 2. N/A
TLV: 100ppm/8Hv.TWA	

Physical/Chemical Characteristics	
BOILING POINT/FLASH POINT: 216°F @ 760 mm/Hg	pH: N/A
VAPOR: DENSITY 0.949 g/ml AT 16°C	DENSITY: g/cm ³ 3.5 (air=1)
VAPOR PRESSURE: 29mm/Hg @ 68°F (20°C)	EVAPORATION RATE: 3 (Butyl Acetate=1)
APPEARANCE/ODOR: Colorless liquid with acrid acrylic odor.	SOLUBILITY IN WATER: 1.5 WT%

Reactivity Data
STABILITY: Unstable with heat.
CONDITIONS TO AVOID: Avoid heat and ignition source.
HAZARDOUS DECOMPOSITION PRODUCTS: Smoke and oxides of carbon.
HAZARDOUS POLYMERIZATION: May occur.
CONDITIONS TO AVOID: Excessive heat, oxidizing and reducing agent. Store in absence of inhibitor. Inadvertent addition of catalyst.

Fire and Explosion Hazard Data	
FLASH POINT: 50° F (10°C)	LIMITS: LEL: 2.1 UEL: 12.5
EXTINGUISHING MEDIA: Foam, dry chemical, and water spray by trained personnel.	
SPECIAL FIREFIGHTING PROCEDURES: Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Cool container with water spray. Fight fire from distance, heat may rupture containers.	
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are uninhibited, may form polymers in vents or flame arrasters, resulting in stoppage of vents.	

Health Hazard Data	
CARCINOGENICITY: California Proposition 65 Warning: This product may contain a chemical known to the state of California to cause cancer .	NTP: N/A
IARC: N/A	OSHA REGULATED: N/A
Effects and Hazards of Overexposure (Acute and Chronic)	
EFFECTS AND HAZARDS OF EYE CONTACT: Irritation, blurring of vision and possible corneal damage.	
EFFECTS AND HAZARDS OF SKIN CONTACT: Irritation, skin sensitizer. Skin permeation may occur.	
EFFECTS AND HAZARDS OF INHALATION (BREATHING): Nose and throat irritation, headache, lung irritation with cough.	
EFFECTS AND HAZARDS OF INGESTION (SWALLOWING): Same as inhalation	
OTHER REGULATORY INFORMATION: California Proposition 65 Warning: This product may contain a chemical known to the state of California to cause cancer. Chemical ingredient requiring this warning:	

Emergency and First Aid Procedures
TREATMENT FOR EYE CONTACT: Flush eyes for 15 minutes and call a physician.
TREATMENT FOR SKIN CONTACT: Wash skin with soap and water.
TREATMENT FOR INHALATION (BREATHING): Remove person to fresh air. If not breathing give artificial respiration or oxygen. Call physician.
TREATMENT FOR INGESTION (SWALLOWING): Do not induce vomiting. Drink water. If person is unconscious, do not give anything. Call a physician.
Precautions for Safe Handling and Use
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Remove personnel, source of fire, ventilate area, wear self contained apparatus and soak up spill with absorbent material.
WASTE DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. This material should NOT be allowed to drain to sewers. Incinerate liquid in proper containers. Absorbed materials can be landfilled according to prevailing regulation. Biological digestion can be considered.
PRECAUTIONS TO BE TAKEN IN HANDLING AND Store in cool place, away from sunlight and heat. Maintain air space inside container. Keep container tightly closed.
OTHER PRECAUTIONS: This product is for professional use only as stated in directions. It is the responsibility of the dentist to train personnel.

Control Measures
RESPIRATORY PROTECTION: NIOSH/MSDA approved air purifying respirator with an organic vapor cartridge may be used.
Ventilation
LOCAL EXHAUST VENTILATION To keep sufficient vapor concentration under 100 ppm per 8 hours.
SPECIAL VENTILATION: None
MECHANICAL (GENERAL) VENTILATION: None
OTHER VENTILATION: Open window if necessary
PROTECTION GLOVES: Impervious gloves
EYE PROTECTION: Safety glasses
OTHER PROTECTIVE EQUIPMENT: Eyewash, lab coat
WORK AND HYGIENIC PRACTICES: Wash hands before eating and smoking

Additional Information	
This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29CFR 1910.1200) and is to be used only for this product. The information contained in this sheet is , to the best of our knowledge, believed to be accurate	
Health Hazard Index:	Ratings:
SEVERE HAZARD	1
SERIOUS HAZARD	2
MODERATE HAZARD	③
SLIGHT HAZARD	4
MINIMUM HAZARD	5
Shipping Information	
REGULATED IATA:	
N/A	
PROPER SHIPPING NAME:	
Methyl Methacrylate Monomer - Inhibited	
HAZARD CLASS:	
3	
IDENTIFICATION NUMBER:	
UN 1247	
PACKAGING GROUP:	
II	
LABEL: FLAMMABLE LIQUID	

To the best of our knowledge, the information contained herein is accurate. However, The Harry J. Bosworth company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.