

MATERIAL SAFETY DATA SHEET

January 5, 2009

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: Dura-Ortho Powder **CHEMICAL NAME:** Poly Methyl Methacrylate
MANUFACTURER: Reliance Dental Mfg., Co., 5805 W. 117th Place, P.O. Box 38, Worth, IL 60482
TELEPHONE: For Product Information: 708-597-6694 For Medical Information: 800-535-5053

SECTION II - HAZARDOUS INGREDIENTS OF MIXTURES

| HAZARDOUS COMPONENT | CAS REG. NO. | % | TLV | (UNITS) | PEL | (UNITS) |
|---------------------|--------------|------|-----|-------------------|-----|-------------------|
| Particulates NOC | NE | < 99 | 10 | mg/m ³ | 15 | mg/m ³ |
| Residual Monomers | NA | < 1 | NA | | NA | |
| DialkylPhthalate | 84-66-2 | < 15 | 5 | mg/m ³ | 5 | mg/m ³ |
| Trade Secret | NA | < 5 | 10 | mg/m ³ | 6 | mg/m ³ |

SECTION III - PHYSICAL DATA

BOILING POINT: NA **SPECIFIC GRAVITY** (h₂O=1): 1.25 **VAPOR PRESSURE:** NA
PERCENT VOLATILE W/W%: NA **VAPOR DENSITY** (AIR=1): NA **EVAPORATION RATE** (=1): NA
SOLUBILITY IN WATER: Insoluble **APPEARANCE & ODOR:** Fine white powder. Faint odor in bulk.

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 304°C/ 580°F **FLAMMABLE LIMIT AIR VOL%:** Lower - NA Upper - NA **AUTOIGNITION TEMPERATURE:** NE
EXTINGUISHER METHOD: Water, carbon dioxide, dry chemical. **SPECIAL FIRE FIGHTING PROCEDURES:** Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust into air, producing a fire hazard and possible explosion hazard if exposed to ignition source. **UNUSUAL FIRE AND EXPLOSION HAZARDOUS:** Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust. Firefighters should wear self-contained breathing apparatus.

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: Eyes or skin (no absorption); inhalation of dusts. **CARCINOGENICITY:** None of the components of this material are listed by IARC, NTP, OSHA, OR ACIGH as carcinogens.
TARGET ORGANS: For Polymer: None Listed. For decomposition product Methyl Methacrylate Monomer: Nose, liver, and kidneys. For Dialkyl Phthalate: None Listed. For Trade Secret: None Listed. **EFFECTS OF OVER EXPOSURE:** It is not known to cause significant health problems. OSHA classifies this material as particulates not otherwise classified. Avoid inhalation of dust. Keep dust out of eyes to prevent possible irritation. **EMERGENCY AND FIRST AID PROCEDURES: INHALATION:** Remove to fresh air. Get medical help if discomfort persists. **EYES:** Flush with water for 15 minutes, including under eyelids. Get medical help if discomfort persists. **SKIN:** Wash with soap and water. Get medical help if discomfort persists. **INGESTION:** Rinse mouth out with water. Call doctor if amount was large. **CLOTHING:** Wash thoroughly before reuse. **TREATMENT:** Treat symptoms after thorough decontamination.
HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING: Health: 1 Flammability: 1 Reactivity: 0
Personal Protective Equipment: Gloves and Safety Glasses or Chemical Splash Goggles.

SECTION VI - REACTIVITY DATA

STABILITY: Stable **CONDITIONS TO AVOID:** Heating above 240°C, 464°F. **INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents. **HAZARDOUS DECOMPOSITION PRODUCTS:** Methacrylate Monomers and Oxides of Carbon when burned.
HAZARDOUS POLYMERIZATION: Will not occur. **CONDITIONS TO AVOID:** High temperatures and strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. **ENVIRONMENTAL EFFECTS: AQUATIC TOXICITY:** For Methyl Methacrylate Monomer: Estimate of 96 hours median Threshold limit (TLm₉₆): 100-1000 ppm. Flathead minnows and goldfish TLm₂₄: 420 ppm. Bluegills TLm₂₄: 368 ppm.; For Dialkyl Phthalate: 96 hours (96-h) LC₅₀, Flathead minnow: 10-100 ul/L. 96-h LC₅₀, Water flea: 10-100 ul/L; 75 mg/l. 48-h LC₅₀, Golden orfe (minnow): 53 mg/l 61 mg/l. **OXYGEN DEMAND:** For Dialkyl Phthalate: COD: 2.10 g/g; 1.66g/g. BOD: 2.00 G/G. **PLANT GERMINATION:** For Dialkyl Phthalate: No adverse effect at: Ryegrass: 10 ul/l/ Radish: 10 ul/l. Lettuce: 10 ul/l. **PLANT SEEDLING:** For Dialkyl Phthalate: No adverse effects at: Marigold: > 100 ul/l. Radish: > 100 ul/l. Corn: > 100 ul/l. Lettuce: > 100 ul/l. **WASTE DISPOSAL METHOD:** Contains a Dialkyl Phthalate, contaminated product may be a RCRA/OSHA hazardous waste (40 CFR Part 261 and 20 CFR Part 1910). Incinerate materials in accordance with Federal, State, and Local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): Use type for Particulates Not Otherwise Classified, if needed. **VENTILATION:** Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers. **PROTECTIVE GLOVES:** If hot plastic is handled. **EYE PROTECTION:** Safety glasses or chemical splash goggles. **OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** High temperature processing equipment should be well ventilated.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in cool dry place. Keep container closed to prevent water absorption and contamination. **OTHER PRECAUTIONS:** Wash face and hands thoroughly with soap and water after use and before eating, drinking, smoking or applying cosmetics.