

SAFETY DATA SHEETS

This SDS packet was issued with item:

076022768

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

076022750 076022776 076022784 076022792

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

076022644 076022677 076022735

MATERIAL SAFETY DATA SHEET

October 10, 2011

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: DuraBase 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.

Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: Durabase Powder

Company Identification:

Reliance Dental Mfg., LLC.

5805 W. 117th Place

Alsip, IL 60803

For Product Information, call: 708-597-6694 **For Medical Information, call:** 800-535-5053

Section 2 - Hazards Identification

Classification of the substance or mixture

Hazard Class – Physical, Health, Environmental

Category

Eye Damage/Irritation

2A

Skin sensitizer

1

Reproductive Toxicity

2

Aquatic Toxicity

A3

OSHA Defined Hazards: Combustible dust, may form combustible dust concentrations in air, explosion hazard

Label elements –Pictograms, Signal Word, Hazard Statements, Precautionary Statements & Supplemental Information



Signal Word Warning

Hazards Statements

H317 May cause an allergic skin reaction
H320 Causes eye irritation
H361 Suspected of damaging fertility of the unborn child
H402 Harmful to aquatic life

Precautionary Statements-Prevention, Response & Disposal

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P240 Ground and bond container and receiving equipment
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash hands and exposed skin thoroughly after handling

P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection
P281 Use personal protective equipment as required
P321 Specific treatment (see...on this label)
P363 Wash contaminated clothing before reuse
P302+P352 IF ON SKIN: Wash with soap and water
P305+P351 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P308+P313 IF exposed or concerned: Get medical advice/attention
P333+P313 If skin irritation or a rash occurs: Get medical advice/treatment
P337+P313 Get medical advice/attention
P405 Store locked up
P501 Dispose of contents/container to an authorized disposal facility

Section 3 - Composition, Information on Ingredients

Item	Chemical Name	CAS #	WT/WT%	GHS Ratings
01	Polymethyl Methacrylate	9011-14-7	80 - 90	Eye damage/Irritation 2B(H320)
02	Diethyl Phthalate	84-66-2	10 – 20	Eye damage/Irritation 2B(H320) Reproductive Toxicity 2 (H361) Aquatic Toxicity A3 (H402)
03	Benzoyl Peroxide	94-36-0	1 – 5	Eye damage/Irritation 2A(H319) Skin Sensitizer 1 (H317)

Section 4 - First Aid Measures

General advice	Provide the SDS to medical personnel for treatment.
Inhalation:	Remove victim to fresh air. Seek immediate medical attention.
Eye Contact:	If product gets in the eyes, flush with lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.
Skin Contact:	Rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.
Clothing:	Remove contaminated clothing, wash thoroughly before reuse.
Ingestion:	If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media:	Water, Chemical (alcohol-resistant) foam, dry chemical, or carbon dioxide.
Unsuitable Extinguishing Media:	Water may not be effective in extinguishing this fire.
Specific Hazards Arising from the Chemical:	Polymers are combustible dusts, care should be taken to avoid creating explosive concentrations in the air. Follow grounding and bonding procedures.
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. Firefighters should wear self-contained breathing apparatus.
Protective Equipment and Precautions for Firefighters:	Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust. Polymers are sensitive to static discharge, follow grounding and bounding procedures. Polymers are not sensitive to mechanical impacts.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Before cleaning any spill or leak, individuals must wear appropriate Personal Protective Equipment that is specified in section 8. Keep airborne particulates at a minimum when cleaning up spills. Deny entry to all unprotected individuals. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental Precautions Extinguish all ignition sources. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800)424-8802.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. Dike and contain spill with inert material (e.g. sand or earth). May contaminate water supply.

Methods for Cleaning Up Maximize ventilation (open doors and windows) and secure all sources of ignition. Use good, local ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of product release. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Not a RCRA Hazardous waste.

Section 7 - Handling and Storage

PRECAUTIONS FOR HANDLING

Advice on Safe handling: Use in well ventilated areas. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use good personal hygiene and housekeeping. Avoid prolonged contact with the product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.

Conditions for Safe Storage, Including any Incompatibilities

Storage conditions: Store containers in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. The temperature should remain at or under 72°F (22°C) at all times. Storing above recommended temperature will cause product performance issues. Store in accordance with National Fire Protection Association recommendations. Observe all label precautions until the container is cleaned, reconditioned or destroyed.

Incompatible Materials: Strong oxidizers, strong oxidizing agents

Section 8 - Exposure Controls, Personal Protection

Chemical name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Polymethyl Methacrylate 9011-14-7			
Diethyl Phthalate 84-66-2		5 mg/m3 TWA	NIOSH: 5 mg/m3 TWA
Benzoyl Peroxide 94-36-0	5 mg/m3 TWA	5 mg/m3 TWA	NIOSH: 5 mg/m3 TWA

Engineering Controls

Use local explosion-proof ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personnel Protective Equipment (PPE)
Respiratory Protection

A respirator should be worn whenever workplace conditions warrant use of a respirator. If dust conditions are present, a N95 respirator dust mask is required. None required if airborne concentrations are maintained below any exposure limit that may be listed above. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134 or other appropriate governing standard.

Eye/Face Protection

Wear safety glasses, chemical goggles when splashing is possible, when dealing with this materials. If necessary, refer to 29 CFR §1910.133, or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

Skin and Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full Contact:

Material: Nitrile rubber
Minimum Layer thickness: 0.4 mm
Break through time: 480 min.

Splash Contact:

Material: Nitrile rubber
Minimum Layer thickness: 0.11 mm
Break through time: 120 min.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. An eyewash station and a safety shower are recommended. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use. Wash hands thoroughly before eating, drinking, or smoking.

Section 9 - Physical and Chemical Properties

APPEARANCE:	Fine pink pigmented powder.
ODOR:	Faint odor in bulk.
FLASH POINT:	579°F, 304°C
FLAMMABLE LIMIT (AIR VOLUME %)	0%
EVAPORATION RATE	No data available.
BOILING RANGE (LOW-HIGH)	295°C
SPECIFIC GRAVITY:	0.00

Section 10 - Stability and Reactivity

MATERIAL STABILITY	Stable
INCOMPATIBILITY (MATERIALS TO AVOID):	Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Methacrylate Monomer and Oxides of Carbon when burned.
POSSIBILITY OF HAZARDOUS REACTIONS	Hazardous polymerization will not occur.

Section 11 - Toxicological Information

MIXTURE TOXICITY

Component Toxicity

Routes of Exposure: Inhalation, Eye Contact, and Ingestion

Target Organs: Eyes, Central Nervous System, Reproductive System, Skin, Peripheral Nervous System, and Respiratory System

Effects of Overexposure:

Product Components Listed as Carcinogenic

CAS Number	Description	%Weight	Carcinogen Rating
None			No data available

Section 12 - Ecological Information

Component Ecotoxicity

Diethyl Phthalate: 96Hr LC50 Pimphales promelas: 17 mg/L (flow-through); 96 Hr LC50 Pimephales promelas: 16.8 mg/L (static); 96 Hr LC50 Lepomis macrochirus: 22 mg/L (flow-through); 96 Hr LC50 Lepomis macrochirus: 16.7 mg/L (static); 96 Hr LC50 Oncorhynchus mykiss: 12 mg/L (flow-through); 48 Hr EC50 Daphnia magna: 36-74 mg/L; 48 Hr EC50 Daphnia magna: 86 mg/L (static); 72 Hr EC50 Desmodesmus subspicatus: 23 mg/L; 72 Hr EC50 Desmodesmus subspicatus: 23 mg/L (static); 96 Hr EC50 Desmordesmus subspicatus: 21 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 21 mg/L (static); 72 Hr EC50 Pseudokirchneriella subcapitata: 42 – 255 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 2.11-4.29 mg/L (static)

Section 13 - Disposal Considerations

WASTE DISPOSAL METHOD

Disposal of Wastes: Dispose of properly in accordance with Federal, State, and Local regulations. It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Waste disposal options include landfilling solids at permitted sites. Incinerate in a chemical incinerator equipped with an afterburner and scrubber. Use registered transporters.

Contaminated Packaging: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards, due to residual flammable material, associated with empty containers. Dispose of all empty containers properly, in accordance with Federal, State and Local regulations.

Section 14 - Transport Information

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	Not Regulated, Polymer, NOS			
IATA	Not Regulated, Polymer, NOS			
IMDG	Not Regulated, Polymer, NOS			

Section 15 - Regulatory Information

State of California Safe drinking Water and Toxic Enforcement Act of 1986

(Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

-None

SARA 313 Benzoyl Peroxide 94-36-0

US State Right-to-know Regulations

-None

Country	Regulations	All Components Listed
	EINECS	Yes
	SARA Hazard categories	No
	TSCA Inventory	Yes

Section 16 - Additional Information

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:

HEALTH:	1
FLAMMABILITY:	1
REACTIVITY:	0
PERSONAL PROTECTIVE EQUIPMENT:	B

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

HEALTH:	1
FLAMMABILITY:	1
REACTIVITY:	0

HMIS & NFPA Hazard Rating

* = Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

B = Gloves and Safety Glasses or Chemical Goggles.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, process, storage, transportation, disposal and release and is not considered a warranty or quality specification. This information relates only to the specific material designated and may not be valid for such materials used in combination with any other materials on in any process, unless specified in the text.

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