

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

076029128

**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).**

076026405 076026439 076026892 076026926 076027387 076027411 076027429 076027437 076027874 076027965

076027999 076028021 076028039 076028047 076029003 076029094 076029151 076029169 076029177 076029185

# MATERIAL SAFETY DATA SHEET

October 10, 2011

## SECTION I: PRODUCT IDENTIFICATION

**PRODUCT NAME:** Duralay Temporary Crown & Bridge Powder - Shades **CHEMICAL NAME:** Plasticized Methacrylate Polymer  
**MANUFACTURER:** Reliance Dental Mfg., Co., 5805 W. 117<sup>th</sup> 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 <sup>3</sup>	15	mg/m <sup>3</sup>
Residual Monomers	NA	> 1	NA		NA	
Dialkyl Phthalate	84-66-2	< 15	5	mg/m <sup>3</sup>	5	mg/m <sup>3</sup>
Benzoyl Peroxide	94-36-0	< 2	5	mg/m <sup>3</sup>	5	mg/m <sup>3</sup>
Trade Secret	NA	< 5	10	mg/m <sup>3</sup>	6	mg/m <sup>3</sup>
Titanium Dioxide	13463-67-7	< 1	10	mg/m <sup>3</sup>	15	mg/m <sup>3</sup>
Mineral Pigment <sup>1</sup>	68186-94-7	< 1	10	mg/m <sup>3</sup>	15	mg/m <sup>3</sup>
Mineral Pigment <sup>2</sup>	1309-37-1	< 1	5	mg/m <sup>3</sup>	5	mg/m <sup>3</sup>
Disazo Pigment	77804-81-0	< 1	NE		NE	

## SECTION III - PHYSICAL DATA

**BOILING POINT:** NA **SPECIFIC GRAVITY (h<sub>2</sub>O=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 light tan 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:** Titanium Dioxide is listed as a possible carcinogen by IARC. None of the other 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 Benzoyl Peroxide: Skin, eyes and respiratory system. For Trade Secret: None Listed. For Titanium Dioxide: None Listed. For Mineral Pigment (both 1&2): None listed. For Disazo Pigment: 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 (TLm<sub>96</sub>): 100-1000 ppm. Flathead minnows and goldfish TLm<sub>24</sub>: 420 ppm. Bluegills TLm<sub>24</sub>: 368 ppm.; For Dialkyl Phthalate: 96 hours (96-h) LC<sub>50</sub>, Flathead minnow: 10-100 ul/L. 96-h LC<sub>50</sub>, Water flea: 10-100 ul/L; 75 mg/l. 48-h LC<sub>50</sub>, Golden orfe (minnow): 53 mg/l 61 mg/l. **OXYGEN DEMAND:** For Phthalate: COD: 2.10 g/g; 1.66g/g. BOD: 2.00 G/G. **PLANT GERMINATION:** For Phthalate: No adverse effect at: Ryegrass: 10 ul/l/ Radish: 10 ul/l. Lettuce: 10 ul/l. **PLANT SEEDLING:** For 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, incinerate liquid and diking material 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:** Duralay Powder Blue

**Company Identification:**

Reliance Dental Mfg., LLC.

5805 W. 117<sup>th</sup> Place

Alsip, IL 60803

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

## Section 2 - Hazards Identification

### EMERGENCY OVERVIEW:

#### WARNING:

For Polymer:

**Acute Hazards:**

**Eyes:** OSHA classifies this material as Particulates, Not Otherwise Classified. May be irritating to the eyes by gross overexposure, no matter how generated. Symptoms of overexposure may include redness, itching, irritation, burning pain and watering. Keep dust out of eyes.

**Ingestion:** Not expected to cause any harmful effects. Ingestion of large amounts may be irritating if product is swallowed, may cause nausea, headache, vomiting and/or diarrhea.

**Skin:** May be irritating to skin in some sensitive individuals, especially after prolonged and/or repeated contact. Prolonged or repeated contact may cause redness and burning.

**Inhalation:** May be irritated by gross overexposure, no matter how generated. Vapors or mists may cause irritation the respiratory tract, nausea, central nervous system depression such as drowsiness, dizziness, loss of coordination and fatigue.

Chronic Hazards:

For Diethyl Phthalate:

**Chronic Hazards:**

**Inhalation:** Persons with impaired lung function or asthma-like conditions may experience additional breathing difficulties.

**Reproductive:** Possible teratogen.

**Skin:** Prolonged or repeated contact may cause redness, burning, drying, cracking and dermatitis. Persons with pre-existing skin disorders may be more susceptible to this material.

### CARCINOGENICITY:

IARC lists Benzoyl Peroxide as unclassifiable as to carcinogenicity to humans. None of the other components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.

**PRIMARY ROUTES OF ENTRY:** Inhalation, Skin or Eyes.

## Section 3 - Composition, Information on Ingredients

Item	Chemical Name	CAS #	WT/WT%
01	Polymer	9011-14-7	60.0-100.0
02	Diethyl Phthalate	84-66-2	0.0-20.0
03	Benzoyl Peroxide	94-36-0	0.0-10.0

ITEM	ACGIH		OSHA Company		Recommendation	SKIN
	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING		
01	10 mg/m <sup>3</sup>	NE	15 mg/m <sup>3</sup>	NE	15 mg/m <sup>3</sup>	NE
02	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE
03	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE

## Section 4 - First Aid Measures

### EMERGENCY AND FIRST AID PROCEDURES:

EYES:	If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.
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.
INHALATION:	Remove to fresh air. Seek immediate medical attention.
SKIN:	If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the effected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.
CLOTHING:	Remove contaminated clothing, wash thoroughly before reuse.
TREATMENT:	Treat symptoms conventionally, after thorough decontamination.

## Section 5 - Fire Fighting Measures

FLASH POINT:	304 °C, 580 °F
FLAMMABLE LIMIT, AIR VOL%:	LOWER: NA UPPER: NA
AUTOIGNITION TEMPERATURE:	NE
EXTINGUISHER METHOD:	Water, carbon dioxide, dry chemical.
FIRE AND EXPLOSION HAZARDS:	Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.
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.
EXPLOSION HAZARD:	Firefighters should wear self-contained breathing apparatus.
SENSITIVE TO MECHANICAL IMPACT:	For Polymer: No.
SENSITIVE TO STATIC DISCHARGE:	For Polymer: No.

## Section 6 - Accidental Release Measures

ACCIDENTAL RELEASE:	Before cleaning any spill or leak, individuals involved must wear appropriate Personal Protective Equipment (e.g., goggles, gloves). Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.
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## Section 7 - Handling and Storage

PRECAUTIONS FOR HANDLING:	Use in well ventilated areas. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use good personal hygiene and housekeeping.
PRECAUTIONS FOR STORAGE:	Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Keep container closed to prevent water absorption and contamination.
INDUSTRIAL HYGIENE PRACTICES:	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.

## Section 8 - Exposure Controls, Personal Protection

<b>VENTILATION:</b>	When working with large quantities of product provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers.
<b>RESPIRATORY PROTECTION:</b>	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.
<b>EYE PROTECTION:</b>	Depending on the use of this product, safety glasses or goggles may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, Canadian standards, or the European Standard EN166. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.
<b>PROTECTIVE GLOVES:</b>	If anticipated that prolonged & repeated skin contact will occur during use of this product, wear gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.
<b>OTHER PROTECTIVE EQUIPMENT:</b>	No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA. An eyewash station and a safety shower are recommended. High temperature processing equipment should be well ventilated.

## Section 9 - Physical and Chemical Properties

<b>APPEARANCE:</b>	Fine blue pigmented powder.
<b>ODOR:</b>	Faint odor in bulk.
<b>pH:</b>	NA
<b>ODOR THRESHOLD:</b>	ND
<b>BOILING POINT:</b>	NA
<b>FREEZING POINT:</b>	NA
<b>VISCOSITY:</b>	NA
<b>SPECIFIC GRAVITY (H<sub>2</sub>O=1):</b>	ND
<b>VAPOR PRESSURE:</b>	NA
<b>PERCENT VOLATILE W/W%:</b>	NA
<b>VAPOR DENSITY (AIR=1):</b>	NA
<b>EVAPORATION RATE (BuAc =1):</b>	NA
<b>SOLUBILITY IN WATER:</b>	Insoluble.
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	ND

## Section 10 - Stability and Reactivity

<b>CONDITIONS TO AVOID:</b>	Heating above 240 °C, 464 °F.
<b>INCOMPATIBILITY (MATERIALS TO AVOID):</b>	Strong oxidizing agents.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Methacrylate Monomer and Oxides of Carbon when burned.
<b>HAZARDOUS POLYMERIZATION:</b>	MAY OCCUR: WILL NOT OCCUR: X
<b>STABILITY:</b>	UNSTABLE: STABLE: X

## Section 11 - Toxicological Information

### TOXICITY DATA:

This product has NOT been tested on animals to obtain toxicology data. There is toxicology data for the components of the product, which is found in scientific literature. This data has not been presented in this document.

**MUTAGENICITY DATA:** This product is not reported to produce mutagenic effects in humans.

### REPRODUCTIVE TOXICITY DATA:

Embryotoxicity: This product is not reported to produce embryotoxic effects in humans.  
Teratogenicity: This product is not reported to cause teratogenic effects in humans.  
Reproductive Toxicity: This product is not reported to cause reproductive effects in humans.

## Section 12 - Ecological Information

**AQUATIC TOXICITY:** There is no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life.

**ENVIRONMENTAL FATE:** There is no specific data available for this product.

## Section 13 - Disposal Considerations

**WASTE DISPOSAL METHOD:** Dispose of properly in accordance with Federal, State, and Local regulations.  
**DISPOSAL OF EMPTY CONTAINERS:** Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers. Dispose of all empty containers properly in accordance with Federal, State and Local regulations.

## Section 14 - Transport Information

**DOT/UN SHIPPING NAME:** POLYMER, NOI  
**DOT/UN CLASS:**  
**NA/UN NUMBER:**  
**PACKING GROUP:**  
**LABEL:**  
**IMDG CLASS:**  
**IMDG PG:**  
**CERCLA RQ:**

## Section 15 - Regulatory Information

**SARA Reporting Requirements:** Yes  
**SARA Threshold Planning Quantity:** There may be specific Threshold Planning Quantities for the components of this product.  
**TSCA Inventory Status:** The components of this product are listed on the TSCA Inventory. For use in FDA regulated products only.  
**CERCLA Reportable Quantity (RQ):** NA  
**Other Federal Requirements:** This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).  
**Other Canadian Regulations:** This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List.  
**State Regulatory Information:** This product may contain components that are covered under specific state criteria.

**RISK STATEMENTS:**  
**SAFETY STATEMENTS:**

R36/37/38 – Irritating to eyes, respiratory system and skin.  
S3 – Keep in a cool place.  
S7 – Keep container tightly closed.  
S9 – Keep container in a well-ventilated place.  
S20 – When using do not eat or drink.  
S 29 – Do not empty into drains.  
S37/39 – Wear suitable gloves and eye/face protection.

Section 16 - Additional Information

**HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:**

HEALTH: 1  
FLAMMABILITY: 1  
REACTIVITY: 0  
PERSONAL PROTECTIVE EQUIPMENT: Gloves and Safety Glasses or Chemical Goggles.

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:**

HEALTH: 1  
FLAMMABILITY: 1  
REACTIVITY: 0

**ABBREVIATIONS:**

NA: Not Applicable	ND: Not Determined	NE: Not Established
ppm: parts per million	G: Gallon	mg: Milligram
L: Liter	gm: Gram	mol: Mole
kg: Kilogram	µ: Micro	mm: Millimeter p Pico
Pa: Pascals	LC: Lethal Concentration	LD: Lethal Dose
TC: Toxic Concentration	TD: Toxic Dose	BOD: Biological Oxygen Demand
COD: Chemical Oxygen Demand		Lo: Lowest
ThOD: Theoretical Oxygen Demand		Tlm: Threshold Limit
H: Hours	M: Months	D: Days
Y: Years	W: Weeks	

ACGIH: American Conference of Governmental Industrial Hygienist  
CPR: Controlled Product's Regulation  
DSL: Canadian Domestic Substances List  
NDSL: Canadian Non-domestic Substance List  
IARC: International Agency for Research for Cancer  
NOEL: No Observed Effect Level  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible Exposure Limit  
TLV: Threshold Limit Value

*THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200), THE COMMONWEALTH OF PENNSYLVANIA REGULATIONS (TITLE 34. CHAPTERS 301-323) AND CANADIAN WHMIS REGULATIONS, ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.*

Revised April 4, 2016