



# Material Safety Data Sheet

Material Name: Coral Optical Zirconia Copings and Bridge Frameworks

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

### Manufacturer Information

Dale Dental  
1701 North Greenville Ave  
Suite 712  
Richardson, TX 75081  
Phone: 214-575-5900

## \*\*\* Section 2 - Hazards Identification \*\*\*

### Emergency Overview

No hazards expected under normal product use conditions.

### Potential Health Effects: Eyes

Not expected under normal use conditions. Dusts generated from cutting or grinding may cause irritation.

### Potential Health Effects: Skin

Not expected under normal use conditions. Dusts generated from cutting or grinding may cause irritation.

### Potential Health Effects: Ingestion

Not a likely route of exposure under normal product use conditions.

### Potential Health Effects: Inhalation

Not expected under normal use conditions. Dusts generated from cutting or grinding may cause irritation.

**HMIS Ratings: Health: 1 Fire: 0 HMIS Reactivity 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

CAS #	Component
1314-23-4	Zirconium oxide
1314-36-9	Yttrium oxide (Y2O3)
7705-08-0	Ferric chloride
25322-68-3	Polyethylene glycol
13446-34-9	Manganous chloride
10025-73-7	Chromic chloride

## \*\*\* Section 4 - First Aid Measures \*\*\*

### First Aid: Eyes

Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists get medical attention.

### First Aid: Skin

For skin contact flush with large amounts of water. If irritation persists, get medical attention.

### First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice.

### First Aid: Inhalation

Move person to non-contaminated air.

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

### General Fire Hazards

See Section 9 for Flammability Properties.

Product will not burn.

### Hazardous Combustion Products

None

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## Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

## Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

### Containment Procedures

No special containment necessary.

### Clean-Up Procedures

Vacuum dust that may be generated and dispose of according to applicable federal, state and local regulations.

### Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

### Special Procedures

None necessary.

## \*\*\* Section 7 - Handling and Storage \*\*\*

### Handling Procedures

Maintain good housekeeping procedures to prevent dust accumulation during grinding. Avoid dust inhalation and direct contact with skin.

### Storage Procedures

Keep this material in a cool, well-ventilated place.

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### A: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

### Engineering Controls

Provide local exhaust ventilation that captures dust during grinding operations.

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Wear goggles or safety glasses with side shields if dusts are generated.

#### Personal Protective Equipment: Skin

Wear work gloves when contact with dust or mist is likely.

#### Personal Protective Equipment: Respiratory

If ventilation or containment measures do not reliably protect against inhalation overexposure, wear MSHA/NIOSH approved respirator suitable for protection from the dust concentrations encountered.

#### Personal Protective Equipment: General

Wash hands and face with soap and water after handling and especially before eating or smoking.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance:</b>	Multi-colored	<b>Odor:</b>	None
<b>Physical State:</b>	Solid	<b>pH:</b>	NA
<b>Vapor Pressure:</b>	ND	<b>Vapor Density:</b>	ND
<b>Boiling Point:</b>	ND	<b>Melting Point:</b>	ND
<b>Solubility (H2O):</b>	ND	<b>Specific Gravity:</b>	ND
<b>Evaporation Rate:</b>	ND	<b>VOC:</b>	ND
<b>Octanol/H2O Coeff.:</b>	ND	<b>Flash Point:</b>	ND
<b>Flash Point Method:</b>	ND	<b>Upper Flammability Limit (UFL):</b>	ND
<b>Lower Flammability Limit (LFL):</b>	ND	<b>Burning Rate:</b>	ND
<b>Auto Ignition:</b>	ND		

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## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

This is a stable material.

### Chemical Stability: Conditions to Avoid

Avoid dust generation.

### Incompatibility

None

### Hazardous Decomposition

None

### Possibility of Hazardous Reactions

Will not occur.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Dose Effects

#### A: General Product Information

No information available for the product.

#### B: Component Analysis - LD50/LC50

##### Chromic chloride (10025-73-7)

Oral LD50 Rat: 440 mg/kg

##### Manganous chloride (13446-34-9)

Oral LD50 Rat: 1484 mg/kg

##### Polyethylene glycol (25322-68-3)

Oral LD50 Rat: 28 g/kg; Dermal LD50 Rabbit: >20 g/kg

##### Ferric chloride (7705-08-0)

Oral LD50 Rat: 316 mg/kg

### Carcinogenicity

#### A: General Product Information

No information available for the product.

#### B: Component Carcinogenicity

##### Chromic chloride (10025-73-7)

IARC: Monograph 49 [1990], Supplement 7 [1987], Monograph 23 [1980], Monograph 2 [1973] (Group 3 (not classifiable))

## \*\*\* Section 12 - Ecological Information \*\*\*

### Ecotoxicity

#### A: General Product Information

No information available for the product.

#### B: Component Analysis - Ecotoxicity - Aquatic Toxicity

##### Polyethylene glycol (25322-68-3)

###### Test & Species

24 Hr LC50 Carassius auratus >5000 mg/L

###### Conditions

PEG 200, 400, 800

##### Ferric chloride (7705-08-0)

###### Test & Species

24 Hr LC50 Morone saxatilis 6 mg/L [static]  
96 Hr LC50 Gambusia affinis 75.6 mg/L [static]  
48 Hr EC50 Daphnia magna 27.9 mg/L

###### Conditions

fingerling

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## \*\*\* Section 13 - Disposal Considerations \*\*\*

### US EPA Waste Number & Descriptions

#### Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

#### Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

## \*\*\* Section 14 - Transportation Information \*\*\*

### US DOT Information

Shipping Name: Not Regulated

## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

#### Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

##### Chromic chloride (10025-73-7)

SARA 302: 1 lb lower threshold TPQ; 10000 lb upper threshold TPQ

##### Ferric chloride (7705-08-0)

CERCLA: 1000 lb final RQ; 454 kg final RQ

#### State Regulations

##### A: General Product Information

Product may be subject to reporting in states other than those listed for individual components.

##### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Zirconium oxide	1314-23-4	No	Yes	No	No	No	No
Chromic chloride	10025-73-7	No	Yes	No	Yes	Yes	No
Polyethylene glycol	25322-68-3	No	No	Yes	No	No	No
Ferric chloride	7705-08-0	Yes	Yes	No	Yes	Yes	No

#### Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Chromic chloride	10025-73-7	1 %

#### Additional Regulatory Information

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## Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Zirconium oxide	1314-23-4	Yes	DSL	EINECS
Yttrium oxide (Y <sub>2</sub> O <sub>3</sub> )	1314-36-9	Yes	DSL	EINECS
Chromic chloride	10025-73-7	Yes	DSL	EINECS
Manganous chloride	13446-34-9	No	No	No
Polyethylene glycol	25322-68-3	Yes	DSL	No
Ferric chloride	7705-08-0	Yes	DSL	EINECS

### \* \* \* Section 16 - Other Information \* \* \*

#### Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

#### Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

End of Sheet