

**1. Product and Company Identification**

Product Name: Origin Incisal Enhancer – a component of ORIGIN LIVE Zirconia Color Liquid system  
Revision Date: 10.15.2014  
MSDS Number: 43  
Product Use: incisal liquid for shading of Origin Live™ zirconia. For dental lab use only (Zirconia-based Crown and Bridge frameworks, Full contour application)

Manufacturer B&D Dental Corp  
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Technical Services: (801) 281-4012

Emergency MSDS Assistance:  
US: (800) 255-2839  
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**2. Chemical Composition / Information on Ingredients**

Chemical characterization Polyethylene Glycol (CAS Nr. 25322-68-3) 5 – 10 wt%  
Manganese Chloride (CAS Nr. 13446-34-9) 0.005 – 0.05 wt%  
Distilled water: remaining  
Food-grade colorant (FD&C Blue 1)

Hazardous components: None

**3. Hazards Identification**

Adverse human effects and symptoms:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.  
May cause mild irritation to eyes, respiratory system or skin.

**4. First Aid Measures**

Eye Contact: No adverse effects expected.

Skin Contact:	No adverse effects expected.
Ingestion:	Large doses of the lower molecular weight products may cause gastro-intestinal upset.
Inhalation:	No adverse health effects expected from inhalation. (May be a mechanical irritant.)

## 5. Fire Fighting Measures

### Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. (increases as molecular weight increases). Flash point: 182 - 287 C.

### Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

### Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

### Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Solid Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

Liquid Spills: Absorb with vermiculite, dry sand, earth or similar material and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids, vapors, liquid); observe all warnings and precautions listed for the product.

## 8. Exposure Controls/Personal Protection

### Airborne Exposure Limits:

AIHA Workplace Environmental Exposure Level (WEEL):  
Polypropylene glycols: 8-hour TWA: 10 mg/m<sup>3</sup>, as an aerosol

### Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### Personal Respirators (NIOSH Approved):

For use with solids (not required for liquids): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

**9. Physical and chemical properties**

Form	Liquid
Color	Bluish
Odor	Distinctive
Changes in physical state	
Melting point/sphere	N/A
Boiling point/sphere	100 degrees C
Density at 20 °C	1g/cm <sup>3</sup>
Solubility Water	Complete
Flash point	N/A
Ignition temperature	N/A
Explosion limits	No risk of explosion

**10. Stability and reactivity**

Chemical Stability	Yes
Hazardous decomposition	None
Hazardous reactions	None
Further information	None

**11. Toxicological information**

Contains no carcinogens as determined by the standard.

**12. Ecological Information**

Biodegradability	Not defined
Further details	No adverse ecological effects if handled and used according to manufacturer's specifications

**13. Disposal Considerations**

Product	Dispose of according to local and governmental regulations with regards to toxic waste treatment.
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**14. Transport Information**

Not regulated

**15. Regulatory Information**

Regulations

This product does not require classification according to the criteria of the EC. European Directive 93/42 for medical products

**16. Further Information**

Hazard rating	Health	1 (slight)
	Flammability	0 (minimal)
	Reactivity	0 (minimal)
Specific Dangers	None	

The information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof. B&D Dental Corp., however, makes no representations as to the completeness or accuracy of this information and supplies it on the condition that the persons receiving same will make their own determinations as to its suitability for their purpose prior to use. In no event will B&D Dental Corp. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon this information.