



**TALLADIUM, INC.
SAFETY DATA SHEET**

**27360 W. Muirfield Lane, Valencia • California 91355
(661) 295-0900 • (800) 221-6449**

Section 1 - Product and Company Identification

Date of SDS: 06/06/2016

Review Date: 07/05/2016

Product Identification: Luminesse® Multi-Layered Zirconia

Product Class/Use: Dental Restorations

Company Name: Talladium, Incorporated

Company Address: 27360 West Muirfield Lane
Valencia, California 91355
United States of America

General Information Telephone: (661)-295-0900

Emergency Telephone: Not required by regulations.



Section 2 - Composition/Information on Ingredients

SUBSTANCE	C.A.S	% Range By Weight	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Nanometer zirconia powder				
Y ₂ O ₃	1314-36-9	< 0.3%	1 mg/m ³	1 mg/m ³
ZrO ₂ +HfO ₂	1314-23-4	94%	5 mg/m ³	5 mg/m ³
Al ₂ O ₃	1344-28-1	0.25% + 0.10	15	10
HfO ₂ typically	7440-58-6	< 3.0%	0.5 mg/m ³	0.5 mg/m ³

Section 3 - Hazards Identification, Including Emergency Overview



Eyes: Airborne dust may irritate eyes.

Inhalation: May irritate respiratory system.

Ingestion: No hazard anticipated from ingestion.

Skin: May cause irritation.

Section 4 - First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult seek medical attention.

Eyes: If contact occurs, flush eyes immediately with ample water. If irritation develops, seek medical attention.

Skin: If contact occurs, wash off skin thoroughly with soap and warm water and rinse thoroughly.

Ingestion: Rinse mouth out with water, no hazard anticipated from ingestion.

Section 5 - Fire Fighting Measures

Flash Point: None

Extinguishing Media: Not combustible

Special Fire Fighting Procedures: None

Unusual Fire & Explosion Hazards: None



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Section 6 - Accidental Release Measures

Spill or Leak Procedures: Clean up mechanically

Waste Disposal Method: No hazardous substances, dispose in accordance with Local, State and Federal regulations.

Section 7 - Handling and Storage

Handling: For dental professional use only. Avoid inhalation of dust or ingesting.

Storage: Store in a dry clean area.

Section 8 - Exposure Controls & Personal Protection

Exposure Limit Information: This product has not been evaluated as a whole.

Ventilation: Use adequate ventilation.

Respiratory Protection: Use NIOSH approved dust mask during grinding.

Eye Protection: Use NIOSH approved safety glasses during grinding.

Protective Hygiene: Wash hands thoroughly with soap and water after using product.

Section 9 - Physical & Chemical Properties

Appearance: White disc / block

Physical State: Solid

Odor: Odorless

Melting Point: 2680°C

Boiling Point: approx. 5500°C

Flexural Strength: 1200 MPa

Sintering Density: 6.06g/cm³

Density / Specific Gravity: approx. 3g/cm³

Vicker Hardness: 12.8 GPa

Grain Size: 0.5µm

Radioactivity: 0.1Bq/g

Solubility: Not soluble in water

Section 10 - Stability & Reactivity Data

Stability: Stable

Conditions to Avoid: None

Incompatibility: None

Hazardous Decomposition Products: Will not occur

Polymerization: Will not occur

Section 11 - Toxicological Information

Inhalation: Can cause irritation to lungs

Skin: May cause slight skin irritation

Eyes: May cause irritation

Ingestion: No toxic reactions known

Section 12 - Ecological Information

Ecological Information: No environmental hazard

Section 13 - Disposal Considerations

Waste Disposal Methods: Follow all Federal, State, and Local regulations.



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Section 14 - Transport Information

U.S. DOT Information: Non-hazardous, not regulated.

Section 15 - Regulatory Information

Federal Regulatory Information: N/A

Section 16 - Other Information

The information and recommendations above are believed to be accurate and represent the best information currently available to us. The person receiving the above material should make their own determination as to the suitability for their use. Talladium makes no warranty expressed or implied with respect to this information and assumes no liability resulting from its use.