



**TALLADIUM, INC.  
SAFETY DATA SHEET**

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

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**Section 1 - Product and Company Identification**

**Date of SDS:** 07/25/2009

**Review Date:** 01/11/2016

**Revision Date:** 01/11/2016

**Product Identification:** Luminesse® ZR Blanks, AT Zirconia Blanks

**Product Synonym:** Zirconia Blanks

**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.



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**Section 2 - Composition/Information on Ingredients**

SUBSTANCE	C.A.S	% Range By Weight	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )
ZrO <sub>2</sub> +HfO <sub>2</sub>	1314-23-4	94%	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Y <sub>2</sub> O <sub>3</sub>	1314-36-9	5.15% + 0.20	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Al <sub>2</sub> O <sub>3</sub>	1344-28-1	0.25% + 0.10	15	10
HfO <sub>2</sub> typically	7440-58-6	<3.0%	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>

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**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.

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**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.

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**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

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**Spill or Leak Procedures:** Clean up mechanically

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

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## Section 7 - Handling and Storage

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

**Storage:** Store in a dry clean area.

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## Section 8 - Exposure Controls & Personal Protection

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**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.

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## Section 9 - Physical & Chemical Properties

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**Appearance:** White disc / block

**Physical State:** Solid

**Odor:** Odorless

**Melting Point:** 2680°C

**Boiling Point:** approx. 5500°C

**Flexural Strength:** Luminesse HS 1200 MPa  
Luminesse HT 1200 MPa  
Luminesse AT 650 MPa

**Sintering Density:** 6.06g/cm<sup>3</sup>

**Density / Specific Gravity:** approx. 3g/cm<sup>3</sup>

**Vicker Hardness:** 12.8 GPa

**Grain Size:** 0.5µm

**Radioactivity:** 0.1Bq/g

**Solubility:** Not soluble in water

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## Section 10 - Stability & Reactivity Data

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**Stability:** Stable

**Conditions to Avoid:** None

**Incompatibility:** None

**Hazardous Decomposition Products:** Will not occur

**Polymerization:** Will not occur

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## Section 11 - Toxicological Information

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**Inhalation:** Can cause irritation to lungs

**Skin:** May cause slight skin irritation

**Eyes:** May cause irritation

**Ingestion:** No toxic reactions known

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## Section 12 - Ecological Information

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**Ecological Information:** No environmental hazard

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**Section 13 - Disposal Considerations**

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

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**Section 14 - Transport Information**

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

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**Section 15 - Regulatory Information**

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**Federal Regulatory Information:** N/A

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**Section 16 - Other Information**

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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.