

## MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification			
Product name:	Magnesia Stabilised Zirconia	Chemical name:	MgO.ZrO <sub>2</sub>
Supplier:	Anoop Ceramics [ISO 9001: 2008 certified] No 17/1-2, 1st Division, Yeshwanthpur, Bengaluru - 560022, Karnataka   INDIA Direct: +91 (80) 23371467, +91 (80) 23478329 Fax: +91 (80) 23370958 Mobile: +91 8884915180 Email: <a href="mailto:info@anoopindia.com">info@anoopindia.com</a> Skype: anoopceramics Website: <a href="http://www.anoopceramics.com">www.anoopceramics.com</a>		In case of emergency call: +91 8884915180
Acronym:	MSZ		
Material Use:	Technical ceramic components		
Date Prepared:	November 5 <sup>th</sup> , 2014	Revision:	1
Prepared by:	Anoop Ostawal		

Section 2: Composition and Information			
Name:	CAS No.:	% By weight:	Remarks:
Zirconium Oxide	1314-23-4	>89	5 mg/m <sup>3</sup> TLV and matter OSHA PEL
Magnesium Oxide	1309-48-4	<11	10 mg/m <sup>3</sup> TLV and OSHA PEL
Hafnium Oxide	12055-23-1	<1	0.5 mg/m <sup>3</sup> TLV and matter OSHA PEL

Section 3: Hazards identification			
<b>Emergency Overview:</b>			
Production poses dust or machining swarf that may cause irritation to eyes, nose, throat and/or skin.			
<b>Health rating:</b>	<b>Flammability rating:</b>	<b>Reactivity rating:</b>	<b>Contact rating:</b>
2 - Moderate	0 – None	0 - None	2 - Moderate
<b>Lab protective equipment:</b>		Eye protection and proper dust collection if machining occurs.	
<b>Storage Colour Code:</b>		Green (General Storage)	
Potential Health Effects			
<b>Inhalation:</b>	Hazard is principally that of a nuisance dust only as a by-product of machining. Coughing or shortness of breath may occur in cases of excessive inhalation.		
<b>Ingestion:</b>	No adverse effects expected.		
<b>Skin Contact:</b>	No adverse effects expected.		
<b>Eye Contact:</b>	No adverse effects expected but dust may lead to irritation.		
<b>Chronic Exposure:</b>	Chronic exposure may lead to pneumoconiosis and dermatitis.		
<b>Aggravation of pre-existing conditions:</b>	Not expected to be a health hazard.		

#### Section 4: First Aid Measures

<b>Inhalation:</b>	Move to fresh air and consult with local medical personnel if discomfort persists.
<b>Ingestion:</b>	Administer water to dilute, but not if person is unconscious. Consult with local medical personnel if discomfort persists.
<b>Eye contact:</b>	Flush with tepid water for a minimum of 15 minutes and consult with local medical personnel if discomfort persists.
<b>Skin contact:</b>	Wash affected area with soap and water and consult with local medical personnel if irritation persists.

#### Section 5: Fire-Fighting Measures

<b>Fire:</b>	Not considered a fire hazard.
<b>Explosion:</b>	Not considered an explosion hazard.
<b>Fire extinguishing Media:</b>	Use any means suitable for extinguishing fire.
<b>Special Information:</b>	Use protective clothing and breathing equipment appropriate for the surrounding fire and to protect against the dust that may be dispersed in the air.

#### Section 6: Accidental Release Measures

Any dust from machining should be wet mopped or dry vacuumed.
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#### Section 7: Handling and Storage

Any dust from machining should be wet mopped or dry vacuumed.
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#### Section 8: Exposure Controls and Personal Protection

<b>Airborne exposure limits:</b>	Only applicable if dust is generated from machining.
<b>Ventilation system:</b>	Local or general exhaust ventilation recommended.
<b>Personal respirators (Niosh approved):</b>	NIOSH/MSHA approved respirator for dust when exposure limit is exceeded.
<b>Skin protection:</b>	Polymer gloves for prolonged dust exposure.
<b>Eye protection:</b>	Safety goggles in the presence of airborne dust.

#### Section 9: Physical and Chemical Properties

<b>Appearance:</b>	Light yellow	<b>pH:</b>	N/A
<b>Odour:</b>	Odourless	<b>Boiling point:</b>	3910°C (7000°F)
<b>Solubility:</b>	<1% soluble in water	<b>Melting point:</b>	2200°C (4000°F)
<b>Specific gravity:</b>	5.6 to 5.8 g/cc	<b>Vapour pressure/ Vapour density:</b>	N/A

**Section 10: Stability and Reactivity**

Chemical stability:		Stable	
Hazardous decomposition:	N/A	Hazardous polymerization:	N/A
Incompatibilities:	N/A	Conditions to avoid:	N/A

**Section 11: Toxicological Information**

N/A

**Section 12: Ecological Information**

N/A

**Section 13: Disposal considerations**

This material is not hazardous. Consultation with local officials is recommended before disposal.

**Section 14: Transport Information**

Not regulated.