

MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification			
Product name:	Zirconia Toughened Alumina	Chemical name:	Zr-Al ₂ O ₃
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: info@anoopindia.com Skype: anoopceramics Website: www.anoopceramics.com		In case of emergency call: +91 8884915180
Acronym:	ZTA		
Material Use:	Technical ceramic components		
Date Prepared:	November 5 th , 2014	Revision:	1
Prepared by:	Anoop Ostawal		

Section 2: Composition and Information			
Name:	CAS No.:	% By weight:	Remarks:
Aluminium Oxide	1344-28-1	60-95	10 mg/m ³ TWA matter containing <1% crystalline silica.
Zirconium Oxide	1314-23-4	Balance	5 mg/m ³ TLV and matter OSHA PEL

Section 3: Hazards identification			
Emergency Overview:			
Production poses dust or machining swarf that may cause irritation to eyes, nose, throat and/or skin.			
Health rating:	Flammability rating:	Reactivity rating:	Contact rating:
2 - Moderate	0 - None	0 - None	2 - Moderate
Lab protective equipment:		Eye protection and proper dust collection if machining occurs.	
Storage Colour Code:		Green (General Storage)	
Potential Health Effects			
Inhalation:	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.		
Ingestion:	No adverse effects expected.		
Skin Contact:	No adverse effects expected.		
Eye Contact:	No adverse effects expected but dust may lead to irritation.		
Chronic Exposure:	Chronic exposure may lead to pneumoconiosis and dermatitis.		
Aggravation of pre-existing conditions:	Not expected to be a health hazard.		

Section 4: First Aid Measures

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

Section 5: Fire-Fighting Measures

Fire:	Not considered a fire hazard.
Explosion:	Not considered an explosion hazard.
Fire extinguishing Media:	Use any means suitable for extinguishing fire.
Special Information:	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.

Section 7: Handling and Storage

Any dust from machining should be wet mopped or dry vacuumed.

Section 8: Exposure controls and personal protection

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

Section 9: Physical and Chemical Properties

Appearance:	White/Ivory	pH:	N/A
Odour:	Odourless	Boiling point:	N/A
Solubility:	Insoluble in Water	Melting point:	2054°C (3729°F)
Specific gravity:	4.1 g/cc	Vapour pressure/ Vapour density:	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.