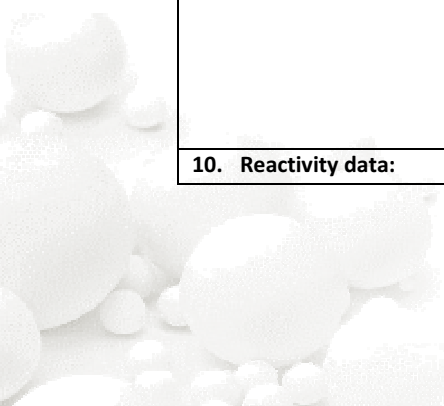




MSDS : NAL [High density] - Ceramic Micro Milling Media

(MATERIAL SAFETY DATA SHEET)

1. Identification of the substance and the company	Product commercial name:	DMM NAL Micro Media		
	Description:	Ceramic beads used as grinding media for industrial minerals		
	DMM:	Lambstreet 1, Gingindlovu KwaZulu-Natal, South Africa 3800 Tel: +27 35 337 0062/68 Fax: +27 35 337 0072		
2. Composition / information on the ingredients	Component	Weight %	CAS #	
	Al ₂ O ₃ (alumina)	93%	1344-28-1	
	ZrO ₂ (zirconia)	2%	1302-76-7	
	Other	5%		
Hazardous components		none		
3. Hazards identification	Health rating:	0 - none		
	Flammability rating:	0 - none		
	Reactivity rating:	0 - none		
	Contact rating:	0 - slight		
	Possible irritation through abrasive friction.			
	Risk of slipping if the product (beads) is spread out on the floor.			
As such, the product should not cause an inhalation problem but its utilization under high wear, dry conditions can create dust.				
4. First aid measures	Eye Contact:	May be abrasive through friction, treat as particle in eye.		
5. Fire fighting measures	This product is not combustible or explosive. It is compatible with all standard fire-fighting methods.			
6. Accidental release measures	Isolate the area and sweep the floor in order to collect the beads to avoid slipping. Wear eye protectors and dust mask.			
7. Handling and storage	In case of operations where dust could be generated, wear a dust mask. Wear eye protection. It is a heavy material - respect the safety rules in case of stacking. Use safety shoes when handling.			
8. Exposure control / personal protection	Eye protection:	Use safety glasses.		
	Recommended dust concentration limits in air (8 hr working day):	No dust present in product.		
9. Physical /chemical properties	Physical state and appearance:	Solid cream beads.		
	Density:	≥ 3.6 g/cm ³		
	Filling Density:	2.1 g/cm ³		
	Vickers Hardness:	1200 HV - N/mm ²		
	Water Absorption:	0 %		
	Sphericity:	≥ 95 %		
	Odor:	Odorless.		
	Specific gravity:	3.60 to 3.90 t/m ³		
	Color:	Cream polished surface.		
	Boiling Point:	>2000°C		
	Melting Point:	>1700°C		
	Vapor Pressure:	Not applicable.		
	Vapor Density:	Not applicable.		
Volatiles by volume at 21°C:	0 % (nil).			
Solubility:	Insoluble.			
10. Reactivity data:	Stability:	The product is stable.		





	Flash point:	Non-flammable.
	Incompatibility with various substances:	Not applicable.
	Hazardous decomposition products:	Inert.
	Hazardous polymerization:	Not relevant.
11. Toxicological information	National Toxicology Program (NTP) Carcinogen Classification:	NONE – non carcinogenic.
	Known anticipated International Agency for Research on Cancer (IARC) Category:	Category 4 - no known carcinogenic effect.
12. Ecological information	Environmental Fate:	Inert with no environmental fate consideration.
	Toxicity of the Products of Biodegradation:	The product itself and its products of degradation are not toxic.
13. Disposal consideration	Waste Disposal:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate waste disposal facility. Dispose of packaging and unused contents in accordance with governmental and local requirements.
14. MSDS transport information	Not regulated.	
15. Regulatory information	Non regulated product.	
16. Other information	Updated on 04 October 2016	
<p>DMM Technologies provides the information contained herein in good faith and to its best knowledge but makes no guarantee as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.</p>		

