MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND CONTACT INFORMATION

Product Name: Ceramic (Quartz) Refractory

AR 026, AR 028, AR 040, AR 040P, AR 042, AR 042P, AR 043, AR 043S, AR3818, AR3818B, AR3818BS, AR3818F, AR 3818P, AR 3818S, AR4961, AR5000, AR7605, AR8028, AR8028F, AR8030, AR8120 AR8203, AR9204, AR9204-250, AR9204P, AR9880, AR9880-100

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2. COMPOSITION/INFORMATION ON INGREDIENTS

			OSHA	ACGIH	NIOSH
CAS NO.	%W	CHEMICAL NAMES	PEL (mg/m3)	TLV (mg/m3)	TWA (mg/m3)
14808-60-7	>50	Quartz (Silica)	10	0.1 (Total)	N/A
1332-58-7	<35	Clay	5 (resp)	3 (resp)	N/A
68476-25-5	<15	Feldspar	5 (resp)	3 (resp)	N/A

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause temporary eye irritation.

SKIN: May cause temporary skin irritation and/or abrasion.

INHALATION: Cough, wheezing, impaired breathing function.

INGESTION: May cause irritation of the gastrointestinal trace, particularly the stomach. CHRONIC OVEREXPOSURE: Excessive inhalation of respirable crystalline silica (quartz) dust may cause a progressive and sometimes fatal lung disease called silicosis. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis. ACUTE OVEREXPOSURE: Progressive inhalation symptoms including silicosis and histolic fibrosis of the lungs.

CARCINOGENICITY: The International Agency for Research on Cancer has determined that there is sufficient evidence for carcinogenicity of crystalline silica (quartz) to experimental animals and limited evidence with respect to humans (Group 2A-probably carcinogenic to humans).

4. FIRST AID MEASURES

EYES: Flush with large amounts of water. INHALATION: Removed from exposure to fresh air immediately. SKIN: Wash skin and hands with soap and water. INGESTION: Consult a physician.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES Non-flammable Flash Point: Not available Flammable Limits: (% by Volume in Air): Lower: None Upper: None AUTO-IGNITION TERMERATURE: N/A HAZARDOUS COMBUSTION PRODUCTS: N/A. EXTINGUISHING MEDIA: N/A FIREFIGHTING INSTRUCTIONS: N/A

6. ACCIDENTAL RELEASE MEARURES

SMALL/LARGE SPILL: Pick up large pieces, vacuum dusts up. Use a dust suppressant if sweeping is necessary to minimize potential exposures.

7. HANDLING AND STORAGE

HANDLING: Do not grind, cut, crush or otherwise cause dust. Do not allow to become wet. If product becomes wet, it must be thoroughly dried before putting into use. If wet products are put into use, the explosive spalling may occur. STORAGE: Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: provide sufficient mechanical ventilation to maintain exposure below PEL.

RESPIRATORY PROTECTION: Recommended if TLVs pr PELs are exceeded.

SKIN AND HAND PROTECTION: Recommended.

EYE AND FACE PROTECTION: Safety glasses with side shields if airborne particles are produced.

OTHER PROTECTIVE EQUIPMENT: Protective shoes are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: various white shapes BOILING POINT: N/A FREEZE-MELT POINT: 2192 F (1600 C) VAPOR PRESSURE: N/A VAPOR DENSITY: N/A SOLUBILITY IN WATER: Insoluble. SPECIFIC GRAVITY: 2.6 pH: N/A ODOR: None PERCENT VOLATILES: 0 EVAORATION RATE: N/A

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable. INCOMPATIBILITY: Hydrofluoric acid and powerful oxidizers. HAZARDOUS DECOMPOSITION PRODUCTS: N/A. HAZARDOUS POLYMERIZATION: None.

11. TOXICOLOGICAL INFORMATION

Not available.

12. ECOLOGICAL INFORMATION

None available.

13. DISPOSAL CONSIDERATION

Dispose of in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

USA DOT: Not regulated

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS TSCA STATUS: On toxic Substance Control Inventory CERCLA Reportable Quantity: None RCRA Status: Not regulated SARA TITLE III: Section 302 Extremely Hazardous Substances: None Section 311/312 Hazardous Categories: Acute Section 313 Toxic Chemicals: None

CANADAIN REGULATIONS WHMIS: D-2A

16. OTHER INFORMATION

SUPPLEMENTAL INFORMATION

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

Date Prepared: January 14, 2013

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