

## **ABRASIVES**

Wholesale Equipment, Parts, and Supplies A Division of CanAm Minerals Inc

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Material Safety Data Sheet Complies with ANSI Z400.1 Draft Standard for the Preparation of Material Safety Data Sheets, Copyright 1991, Chemical Manufacturers Association U.S. Department of Labor Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

### Section 1: CHEMICAL PRODUCT AND CHEMICAL IDENTIFICATION

Identity (as used on label and list): Synonym(s): 8-12 (Large), 16, 16-30, 35, 30-60 (Fine) (numbers indicated are all nomenclature for sizing)

Manufacturer's Name: Emergency Telephone: Information Telephone:

Address:

Prepared by: Date Prepared: Kleen Blast

CanAm Minerals dba Kleen Blast (925) 831 - 9800 (925) 831 - 9800

50 Oak Ct., Suite 21 0 Danville, CA 94526 Director of Health & Safety 25th september 2012 Revised: September 2012

## Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Contents: Vitreous Smelter Slag 99% - 100% C.A.S. #67711-92-6

Formula: Not Applicable

Chemical Family: Iron-Calcium-Silicate (complex silicate) with fused oxides of Si, Fe, Ca, Al, Mg.

Typical Chemical Composition: 38.1% SiO<sub>2</sub>; 27.4% Fe<sub>2</sub>O<sub>3</sub>; 22.8% CaO; 5.7% Al<sub>2</sub>O<sub>3</sub>; 3.9% MgO; other fused oxides @ <1.0%. Chemical composition shown is typical, elemental concentrations may vary slightly between batches or lots.

Note: Kleen Blast contains < 0.1% crystalline silica. All of the U.S. EPA RCRA 8 metals, the 17 California listed metals listed metals are either nondetected or below the regulatory limits, as well as the lower limits as specified by the U.S. Navy under MIL-A-22262A (SH), specifications for blasting abrasives. TCLP, TTLC and STLC analytical results of metal contents are available upon request. Trace levels in the ppm range of heavy metal contaminants may be present so users need to determine employee exposures in accordance with OSHA regulations.

Permissible Exposure Limits OSHA PEL:Total Nuisance Dust:10 mg/m³Respirable Dust:5 mg/m³

Section 3: HAZARDS IDENTIFICATION

This product does not contain substances at levels regulated: -by OSHA under 29 CFR 1910.1200 -by USEPA under 40 CFR 302.4 and 40 CFR 355.4 -by USEPA under 40 CFR 261.20 -by USEPA under 40 CFR 116.4				
This product is not hazardous material based upon current information and testing results.				
Kleen Blast has prepared this material safety data sheet in order to provide product information which will assist our customers in complying with all state and federal waste and hazard minimization laws as well as all state and federal transportation laws.				
Appearance and O	dor: Black angular to sub-angular granules with no apparent odor.			
Health Hazards (acute)	<i>Trauma</i> hazard associated with handling equipment or sudden release of large volumes. Abrasion injuries possible during blasting operations or similar exposure.			
Health Hazards (chron	ic): <i>Respiratory</i> illness as a result of long-term exposure to particulates is possible. NIOSH-approved particulate respirators should be used during blasting operations. Company testing indicates no PEL exposures in the blasting environment of any trace metal contaminants. Job specific trace heavy metal PEL testing needs to conducted by users in accordance with all OSHA regulations.			

#### HAZARDS IDENTIFICATION - Continued

#### OSHA REGULATORY STAT US

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Physical/Chemical Characte ristics				
Boiling Point	NA		Specific Gravity (H20=1)	2.8
Vapor Pressure (mm Hg)	NA		Melting Point	2400 F
Vapor Density (Air=1)	NA		Evaporation Rate	None
Solubility in Water	None		(Butyl Acetate=1)	None

Section 4: HAZARD SYMOBOLS:

#### HAZARD SY MBOLS:

HAZARDOUS MATERIALS	IDENTIFICATI	ON SYSTE	M (HMIS)
Health	1 *		
Flammability	0		
Physical Hazard	0		
Protective Equipment			
HMIS PERSONAL PROTECTIVE EQU Glasses.	IIPMENT RATING	ā:	Industrial Use situations: A; Safety

CANADIAN WHMIS SYMBOLS : Not Applicable This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

### Section 5: FIRE AND EXPLOSION HAZARD

Flash Point (Method Used): Flammable Limits: Pyrophoric, oxidizer, organic peroxide: Pressurized during shipment: Extinguishing Media: Special Fire Fighting Procedures: Unusual Fire/Explosion Hazards:	NA LEL: NA No NA NA NA NA	UEL: NA
Reactivity Data Stability: Conditions to avoid: Materials to avoid (incompatibility): Hazardous decomposition or by-products: Hazardous polymerization:	Stable None None None Will not occ	ur

# Section 6: First Aid Measures

Specialized med ical tr	eatment required	: No			
Toxicity Data:		Not toxic to mammals or aquatic environments. Not persistent in the environment. Freshwater and saltwater bioassays performed according to the States California and Washington available upon request.			
Health Hazard Data (non	- chemical)				
Target Organs:		Lungs, eyes, skin.			
Route(s) of Entry:					
Inhalation	Skin	Eyes	Ingestion		
Fine particulates (PM- 10) in the form of dust possible during blasting, loading/unloading, processing and packaging.	Abrasion injuries with high velocity, direct exposure to skin.	Abrasion injuries possible if safety glasses are not worn. Contact lens use may be dangerous when handling this product.	Toxic effects will not occur.		
Carcinogenicity None	NTP No	IARC Monogra phs None	OSHA -Regulated No		
Teratogenic No	Mutagenic No				
controls are insufficient, N may be encountered durin	ITOSH approved respirang abrasive blasting ope		be used. Additional health hazards coatings, rust, etc. Specific health		
Signs and symptoms of	fexposure – /	likely only in extreme and un	usual conditions:		
Inhalation Coughing, shortness of breath	Skin Redness, sensitivit	Eyes ty Redness, watering	Ingestion Unknown		
Medical conditions agg	pravated by exposure	e – likely only in ex	treme and unusual conditions:		
Inhalation Existing disorder increases risk of discomfort and injury.	Skin Existing disorder	Eyes Contact lens use increases risk of discomfort and injury	Ingestion Unknown		

First Aid Measures - Continued

Emergency and first aid procedures – <i>likely only in extreme and unusual conditions:</i>			
Trunk/torso/limbs:	Follow procedures appropriate to abrasion or trauma injuries		
Skin:	Follow procedures appropriate to abrasion injuries.		
Eyes:	Flush thoroughly with cool running water.		
Inhalation:	Follow procedures appropriate to dust inhalation.		
Ingestion:	Not likely.		
Note to physicians:	No toxic substances are present in this product.		

## Section 7 : ACCIDENTAL RELEASE MEASURES

Loading/unloading:		A release will pose a housekeeping problem. Material should be swept or vacuumed into appropriate containers.			
Waste disposal method:	and Cons	ent grit remains uncontaminated per the Resource Recovery servation Act (RCRA), then the material meets the definition waste and may be disposed of per local regulations.			
	accumula RCRA, th	If the spent grit material has been used in a manner that accumulates contaminates at levels above those specified under RCRA, then the waste is defined as hazardous and must be managed per federal or state regulations governing hazardous waste.			
Precautions to be taken in handling and storing:	airborne	Follow good housekeeping practices to reduce practices to reduce airborne emissions. Use approved respiratory protection and clothing in abrasive blast environments.			
Exposure Controls:	abrasive	Respiratory protection: NIOSH-approved respiratory equipment for abrasive blast environments. Personal protection: NIOSH-approved garments and head gear during blasting operations.			
Engineering controls:	Always u	Always use engineering controls to limit exposures to			
Local Exhaust During loading/Unloading	Mechanical Exhaust May be appropriate during processing.	Special Exhaust May be appropriate during normal abrasive blasting operations.	Other May be required during unusual abrasive blasting operations.		

## Section 8: DEPARTMENT OF TRANSPORTATION REQUIREMENTS

Name of Contents: Constituents: Hazard Class: UN/NA Number:

Abrasive grit No hazardous substances present at regulated levels Not applicable Not applicable

Analyte	Total Metal mg/kg	Method PQL*	TCLP Level mg/L	Method PQL*
Antimony (Sb)	N/D	1.0	-	-
Arsenic (As)	9.0	0.3	N/D	0.01
Barium (Ba)	306.3	5.0	0.49	0.10
Beryllium (Be)	N/D	0.5	-	-
Cadmium (Cd)	N/D	0.5	N/D	0.01
Chromium (Cr)	36.9	0.5	N/D	0.01
Copper (Cu)	1481.0	1.0	-	-
STLC (Cu)**	1.57 mg/L	-	-	-
Lead (Pb)	3.3	0.5	N/D	0.01
Mercury (Hg)	N/D	0.1	N/D	0.02
Nickel (Ni)	14.5	2.5	-	-
Selenium (Se)	N/D	1.0	N/D	0.10
Silver (Ag)	N/D	1.0	N/D	0.02
Thallium (Ti)	N/D	1.0	-	-
Zinc (Zn)	72.4	0.5	-	-

## Average Trace Metal Analytical

Based upon lab work performed during years 2007, 2008, 2009, 2010, 2011, 2012.

\* PQL = Practical Quantification Limit

\*\* Additional testing performed on Cu only, 10x Rule, units of measure in mg/L.