

MATERIAL SAFETY DATA SHEET

MSDS Date: 05-12-2020

Section 1: Product and Company Identification

PRODUCT NAME: Bulk Copper Slag

Saucon Minerals
4800 Stecher Street
Dearborn, Michigan 48126Technical Contacts: Domenic C. Popko
Contact Phone: (906) 235 - 1540Commercial Contacts: R. Johnson
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Section 2: ingredients Composition/Information

Components	CAS Number	Weight percent
Inorganic granular materials containing SiO ₂ , Al ₂ O ₃ , MgO, CaO, Fe ₂ O ₃ , Cu	Proprietary	100

Section 3: Hazards identification

Potential health effects

Eyes: Dust particles may cause mechanical irritation injury.

INGESTION: Not anticipated under normal working conditions.

INHALATION: (Acute) Calcium oxides present in dusts may be irritating to mucous membranes of the nose and upper respiratory tract.

INHALATION: (Chronic) None.

MEDICAL CONDITIONS GENERALLY AGGREGATED BY EXPOSURE: Dust may aggravate pre-existing eye, skin, lung, central nervous system, and kidney disease.

CARCINOGENICITY

OSHA: No

NTP: No

IARC: No

Section 4: fire-Fighting Measures

FLAMMABLE LIMITS IN AIR: Not Applicable-Non-Flammable

FLASH POINT: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

NFPA HAZARD CLASSIFICATION

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

EXTINGUISHING MEDIA: Not Applicable

SPECIAL FIRE FIGHTING PROCEDURES: Treat as a metal fire. Use extinguishing media appropriate for surrounding fire. Firefighters should wear NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout or bunker gear.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not Applicable – materials not combustible.

HAZARDOUS DECOMPOSITION PRODUCTS: At temperature above the melting points, fumes containing oxides and alloying elements may be liberated.

Section 5: Handling and Storage

HANDLING AND STORAGE: Good housekeeping techniques such as vacuuming should be used to remove dust accumulations and to prevent the generation of airborne dust. Avoid the use of compressed air for removing settled dust; avoiding inhalation of dust and contact with eyes.

OTHER PROCEDURES: None

Section 6: exposure controls/personal protection

VENTILATION: Mechanical general and/or local exhaust ventilation.

RESPIRATORY PROTECTION: NIOSH approved particulate respirators. Appropriate respirator selection depends upon type and magnitude of exposure.

EYE PROTECTION: Safety glasses with side shields.

SKIN PROTECTION: Protective clothing and work gloves.

OTHER PROTECTIVE EQUIPMENT: None

WORK HYGIENIC PRACTICES: Particulates to minimize dust generation.

Section 7: physical and chemical properties

SAUCON MINERALS

APPERANCE: Dull Black

ODOR: Not Applicable – Odorless

PHYSICAL STATE: Fine to Coarse Solid Particles

pH AS SUPPLIED: 7.6

BOILING POINT: Not Applicable

MELTING POINT: Over 2000 degrees Fahrenheit

FREEZING POINT: Not Applicable

VAPOR PRESSURE (mmHg): Not Applicable

VAPOR DENSITY (AIR = 1): Not Applicable

SPECIFIC GRAVITY (H2O = 1): 2.9 – 3.3 g/cm³

Bulk density: 100 - 110 lb/ft³

EVAPORATION RATE: Not Applicable

SOLUBILITY IN WATER: Not Applicable – Insoluble

PERCENT SOLIDS BY WEIGHT: >95%

PERCENT VOLATILE: <0.5%

Section 8: sTABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID (STABILITY): None

INCOMPATIBILITY (MATERIAL TO AVOID): None

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None

Section 9: Disposal considerations

WASTE DISPOSL METHOD: Dispose of in accordance with applicable state and federal regulations.

RCRA HAZARD CLASS: Not Applicable

Section 10: regulatory information

SAUCON MINERALS

TSCA: All ingredients are listed on the TSCA inventory or are exempt.

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200: Proper precautions should be taken to avoid any health hazard. A health hazard may occur if limits for air contaminants exceed PEL limits as per 29 CFR 1910.1000. Proper engineering controls and ventilation should be used to prevent air contaminants from exceeding PEL limits.

STATE REGULATIONS:

INTERNATIONAL REGULATIONS:

PHYSICAL DATA

<u>Physical State:</u> lbs/ft ³	Granular	<u>Bulk Density:</u> 100-110
		<u>Specific Gravity:</u> 2.9 – 3.3
<u>Appearance and Odor:</u>	Dull Black, Odorless	<u>Vapor Pressure:</u> N/A
<u>Boiling Point:</u>	N/A	<u>Vapor Density:</u> N/A
<u>Melting Point:</u>	Over 2000° F	<u>Evaporation Rate:</u> N/A
		<u>pH:</u> 7.6

FIRE AND EXPLOSION HAZARD DATA

<u>Flash Point:</u>	N/A	<u>Lower Explosive Limit:</u>	N/A
<u>Auto Ignition Temperature:</u>	N/A	<u>Upper Explosion Limit:</u>	N/A
<u>Fire Hazard:</u>	Non Flammable	<u>Explosion Hazard:</u>	N/A
<u>Extinguishing Media Hazards:</u>	N/A	<u>Special Fire Fighting Procedures:</u>	N/A

REACTIVITY DATA

<u>Stability:</u> <u>Avoid):</u> H ₂ S0 ₄ ,	Stable	<u>Incompatibilities (Materials to</u> Strong mineral acids eg. HCl, HNO ₃ .
<u>Hazardous Thermal Decomposition Products:</u>	None Expected	
<u>Polymerization:</u>	Will not occur	

SAUCON MINERALS

HEALTH HAZARD DATA

Proper precautions should be taken to avoid any health hazard. A health hazard may occur if limits for air contaminants exceed PEL limits as per 29 CFR 1910.1000. Proper engineering controls and ventilation should be used to prevent air contaminants from exceeding PEL limits. (For information on potentially hazardous elements refer to page 3.)

Usual Route(s) of Entry: Inhalation

Medical Condition Possibly

Aggravated: Chronic diseases or disorders of the respiratory system.

Carcinogen Information: The product contains trace amounts of chromium which is considered hazardous if the quantity is over 5 mg/l when tested in accordance with 40 CFR Part 261. This material has not been tested per this procedure at this time.

TYPICAL ANALYSIS FOR TCLP HEAVY METALS

All test methods as per SW-846

<u>Test Description</u>	<u>Result</u>	<u>Unit</u>	<u>Reg. Limit</u>	<u>Method</u>
<u>Hazardous Waste Characterization</u>				
Corrosivity: 7.2.2	NC		<2 or >12.50	SW-846 Mtd
Ignitability:	NI		NC= Non-corrosive NI= Non-ignitable	
Reactive Cyanide:	ND	Mg/Kg	250	SW-846 7.3.3.2
Reactive Sulfide:	ND	Mg/Kg	500	SW-846 7.3.4.2

ND=Non Detectable

TCLP METAL ANALYSIS SW-846 Mtd 1311

Arsenic	ND	Mg/L	5	SW-846 Mtd. 6010
Barium 6010	0.17	Mg/L	100	SW-846 Mtd.
Cadmium	ND	Mg/L	1	SW-846 Mtd. 6010
Chromium (Total)	0.005	Mg/L	5	SW-846 Mtd. 6010
Copper 6010	9.1	Mg/L	100	SW-846 Mtd.
Lead	ND	Mg/L	5	SW-846 Mtd. 6010
Mercury	ND	Mg/L	0.2	SW-846 Mtd. 6010
Selenium	ND	Mg/L	1	SW-846 Mtd. 6010
Silver	ND	Mg/L	5	SW-846 Mtd. 6010
Zinc	0.36	Mg/L	500	SW-846 Mtd. 6010

ND= Non Detectable

Reported: 8/1/11

<u>Test Description</u>	<u>Result</u>	<u>Unit</u>	<u>Reg. Limit</u>	<u>Method</u>
<u>TCLP VOLATILES SW-846 Mtd. 1311</u>				
Vinyl Chloride	ND	Mg/L	0.2	SW-846 Mtd. 8260
1.1 Dichloroethylene	ND	Mg/L	0.7	SW-846 Mtd. 8260
Methyl Ethyl Ketone	ND	Mg/L	200	SW-846 Mtd. 8260
Chloroform	ND	Mg/L	6	SW-846 Mtd. 8260
Carbon Tetrachloride	ND	Mg/L	0.5	SW-846 Mtd. 8260
1.2 Dichloromethane	ND	Mg/L	0.5	SW-846 Mtd. 8260
Benzene	ND	Mg/L	0.5	SW-846 Mtd. 8260
Trichloroethane	ND	Mg/L	0.5	SW-846 Mtd. 8260
Tetrachloroethene	ND	Mg/L	0.7	SW-846 Mtd. 8260
Clorobenzene	ND	Mg/L	100	SW-846 Mtd. 8260
1.4 Dichlorobenzene	ND	Mg/L	7.5	SW-846 Mtd. 8260

TCLP SEMI-VOLATILES SW 1311

p-Cresol & m-Cresol	ND	Mg/L	200	SW-846 Mtd. 8270A
o-Cresol	ND	Mg/L	200	SW-846 Mtd. 8270A
Total Cresol	ND	Mg/L	200	SW-846 Mtd. 8270A
Hexachlorobenzene	ND	Mg/L	0.13	SW-846 Mtd. 8270A
Hexachloroethane	ND	Mg/L	3	SW-846 Mtd. 8270A
Nitrobenzene	ND	Mg/L	2	SW-846 Mtd. 8270A
Pyridine	ND	Mg/L	5	SW-846 Mtd. 8270A
2,4,6-Trichlorophanol	ND	Mg/L	2	SW-846 Mtd. 8270A
2,4,6-Trichlorophanol	ND	Mg/L	400	SW-846 Mtd. 8270A
2,4-Dinitroluese	ND	Mg/L	0.13	SW-846 Mtd. 8270A
Hexachlorobutadiene	ND	Mg/L	0.5	SW-846 Mtd. 8270A
Pencachlorophanol	ND	Mg/L	100	SW-846 Mtd. 8270A

ND= Non-Detectable

Reported: 8/1/11

FIRST AID AND MEDICAL EMERGENCY PROCEDURES

<u>Eye Contact:</u>	Gently flush with water, consult a physician immediately.
<u>Skin Contact:</u>	Not anticipated to pose an acute or significant skin contact hazard.
<u>Inhalation:</u>	Not anticipated to pose an acute or significant inhalation hazard.
<u>Ingestion:</u>	Not considered to be an ingestion hazard.

OCCUPATIONAL EXPOSURE CONTROL MEASURES

Engineering Controls (Ventilation, etc.): Ventilation should be sufficient to maintain dust levels below applicable exposure limit.

Work Practices (Handling and Storage, etc.): Avoid creating airborne dust by dust suppression methods.

Eye Protection: Safety glasses, goggles or NIOSH approved hood or respirator is recommended when dust levels are excessive.

Skin Protection: Gloves and long-sleeved clothing are recommended when dust levels are excessive.

Respiratory Protection: When engineering controls are not sufficient to lower dust levels below the applicable exposure limit, use a NIOSH-approved respirator for dusts and mists within the use limits of the respirator.

Additional Miscellaneous information: If material is being used for abrasive air blasting, proper protective clothing, eye protection and respirators should be used in accordance with OSHA regulations. If air blasting is being performed in a confined area, proper ventilation should be used in accordance with OSHA regulations.

DISCLAIMER: All information, recommendation and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his/her own use of the product described herein. Since the actual use by others is beyond our control, we make no guarantee, expressed or implied, as to the effects of such use, the results to be obtained or the safety and toxicity of the product, nor do we assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.