SAFETY DATA SHEET

WORKING COPY

Date Prepared : 05/01/2015
SDS No : 2015-02

Mineral CSA Briquettes

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mineral CSA Briquettes
GENERAL USE: Acid mine drainage reclamation purposes, including use as rip-rap and filter media.
PRODUCT DESCRIPTION: Mineral CSA Briquettes
CHEMICAL FAMILY: Calcium Silicate produced from Stainless Steel Slag
GENERIC NAME: Harsco Minerals Final Aggregate Briquettes

MANUFACTURER

Harsco Metals and Minerals
359 North Pike Road
Sarver, PA 16055
Customer Service: (800) 850-0527
E-Mail: agrowsil@harsco.com

24 HR. EMERGENCY TELEPHONE NUMBERS

724-353-0055

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Corrosion, Category 1

GHS LABEL

Corrosion

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H314: Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS

Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
9517ZE5E: P264: Wash hands thoroughly after handling.

Response:

P363: Wash contaminated clothing before reuse.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

Disposal:

0470BXRW: Dispose of unused material in accordance with local/regional/national regulations.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Mineral CSA Briquettes are a brownish grey solid procuded by mixing Harsco Minerals Final Aggregate with portland cement. Short-term exposures to the briquettes are not likely to cause serious harm. However when saturated with water, chemical burns may result due to its high pH. Unprotected skin and eye contact should be avoided when handling both wet briquettes and water that satuates them.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Principal Components	CAS #	Percent	ACGIH TLV Values	OSHA PEL Values
Calcium	7440-70-2	30% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Silicon	7440-21-3	12% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Magnesium	7439-95-4	7% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Portland Cement	65997-15-1	5% (typical)	1 mg/m^3	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Iron	7439-89-6	4% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Aluminum	7429-90-5	3% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Silica, Crystalline	14808-60-7	2% (typical)	0.025 mg/m^3 (resp.)	30 / (%silica + 2) 10 / (%silica + 2)
Manganese	7439-96-5	1% (typical)	0.1 mg/m^3 (inhal.) 0.02 mg/m^3 (resp.)	C 5 mg/m^3
Titanium	7440-32-6	0.5% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Chromium	7440-47-3	0.2% (typical)	0.5 mg/m^3	TWA 1.0 mg/m^3
Sulfur	7704-34-9	0.2% (typical)	10 mg/m^3 (inhal.) 3 mg/m^3 (resp.)	TWA 15 mg/m^3 TWA 5 mg/m^3 (resp.)
Nickel	7440-02-0	0.04% (typical)	1.5 mg/m^3 (inhal.)	TWA 1 mg/m^3

4. FIRST AID MEASURES

EYES: If contact with eyes occurs, flush with water for 15 minutes, occasionally lifting upper and lower lids. Consult a physician.

SKIN: Wash skin surfaces that have been in contact with the material. Apply a skin lotion if redness persists.

INGESTION: Rinse mouth thoroughly if ingested. Do not induce vomiting. If discomfort continues, consult a physician.

INHALATION: Move to fresh air. If discomfort continues, consult a physician.

NOTES TO PHYSICIAN: Treat symptomatically.

COMMENTS: Show this Safety Data Sheet to physician in attendance.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: This product is non-combustible.

GENERAL HAZARD: None known

EXTINGUISHING MEDIA: Use fire-extinguishing media appropriate for surrounding materials.

FIRE FIGHTING PROCEDURES: Move product containers from fire area if it can be done without risk. Cool containers by flooding with water until heat is dissipated.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILL: Avoid runoff into storm sewers and ditches that lead to waterways. Collect spillage using appropriate equipment. Dispose of collected materials inaccordance with Federal, State and local regulations.

GENERAL PROCEDURES: Never return spillage and clean-up materials to original product containers.

RELEASE NOTES: In the unused form, the material is non-hazardous as defined in state and federal regulations.

COMMENTS: Spillage into water may result in an elevated pH level. Do not attempt to wash spillage into sewers or storm water drains.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep bulk and bagged material dry until used. Normal temperature and pressure do not affect material.

HANDLING: Follow Safety Data Sheet and label precautions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields. Use tight fitting googles if dust is generated.

SKIN: Use protective gloves. Wear suitable protective clothing.

WORK HYGIENIC PRACTICES: Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants. Handle in accordance with good industrial hygiene and safety practice.

COMMENTS: Proper and safe use of the material is solely the purchaser's responsibility. The manufacturer extends no warranties and makes no representations as to the suitability of the product for the purchaser's intended purpose or the consequences of purchaser's actions.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: None

COLOR: Grey powder

pH: 10 to 12

SOLUBILITY IN WATER: High solubility in water; can raise pH of water to values of 11 to 12 due to alkaline nature of the material.

SPECIFIC GRAVITY: 2.8

COMMENTS: For additional information contact manufacturer.

10. STABILITY AND REACTIVITY

STABILITY: This product is stable and non-reactive under normal conditions of use, storage and transport.

CONDITIONS TO AVOID: Unintended mixing with water can result in elevated pH.

POSSIBILITY OF HAZARDOUS REACTIONS: None

HAZARDOUS DECOMPOSITION PRODUCTS: None known

INCOMPATIBLE MATERIALS: Strong acids.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: May cause eye irritation.

SKIN EFFECTS: May cause skin irritation.

CARCINOGENICITY

IARC: Stainless steel slag is not listed by IARC.

NTP: Stainless steel slag is not listed by the National Toxicology Program in their Annual Report.

OSHA: Stainless steel slag is not listed by NIOSH on their Occupational Cancer List.

Notes: ACGIH Carcinogens

- Aluminum (CAS 7429-90-5) A4 Not classifiable as a human carcinogen.
- Calcium (CAS 7440-70-2) No designation listed.
- Chromium (CAS 7440-47-3) A4 Not classifiable as a human carcinogen.
- Crystalline Silica (CAS 14808-60-7) A2 Suspected human carcinogen.
- Iron (CAS 7439-89-6) No designation listed.
- Magnesium (CAS 7439-95-4) No designation listed.
- Manganese (CAS 7439-96-5) A4 Not classifiable as a human carcinogen.
- Nickel (CAS 7440-02-0) A5 Not suspected as a human carcinogen.
- Silicon (CAS 7440-21-3) No designation listed.
- Sulfur (CAS 7704-34-9) No designation listed.
- Titanium (CAS 7440-32-6) A4 No designation listed.

IARC Monographs. Overall Evaluation of Carcinogenicity

- Aluminum (CAS 7429-90-5) Not listed.
- Calcium (CAS 7440-70-2) Not listed.
- Chromium (CAS 7440-47-3) Group 3. Monographs 49 (1990).
- Crystalline Silica (CAS 14808-60-7) Group 1. Monographs 68 and 100C (2012).
- Iron (CAS 7439-89-6) Not listed.
- Magnesium (CAS 7439-95-4) Not listed.
- Manganese (CAS 7439-96-5) Not listed.
- Nickel (CAS 7440-02-0) Group 2B. Monographs 7, 49 (1990).
- Silicon (CAS 7440-21-3) Not listed.
- Sulfur (CAS 7704-34-9) Not listed.
- Titanium (CAS 7440-32-6) Not listed.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

ECOTOXICOLOGICAL INFORMATION: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

BIOACCUMULATION/ACCUMULATION: This product is not bioaccumulating.

DISTRIBUTION: Not Available

AQUATIC TOXICITY (ACUTE): None known

CHEMICAL FATE INFORMATION: Not Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose in accordance with all applicable regulations.

GENERAL COMMENTS: TCLP testing of unused product indicates that it is not hazardous waste by characteristic.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

OTHER SHIPPING INFORMATION: Unused product is not regulated as a hazardous material by DOT.

COMMENTS: Unused product is not regulated as dangerous goods by IATA, IMDG or TDG.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Hazardous Chemical.

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Aluminum oxide (CAS 1344-28-1)

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: None

CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: None

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None

RCRA STATUS: Not regulated.

OSHA HAZARD COMM. RULE: Regulated.

16. OTHER INFORMATION

Date Prepared: 05/01/2015

HMIS RATING

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA CODES