Safety Data Sheet

1. PRODUCT IDENTIFICATION AND USE:

Product name: Blast Furnace Slag – Air Cooled Blast Furnace Slag (ACBFS) – Granulated Blast Furnace Slag (GBFS) – Lightweight Aggregate – Non-Metallic Slag – Iron Slag

Chemical Name & Synonyms: Mineral Composite

Material Identification and Use: Blast furnace slag is a non-metallic byproduct from the steel-making process and is used as a cementitious material for cement, concrete, and concrete products. It is also used in soil stabilization, as a filler in asphalt, and in widely used construction products.

Supplier Address:
Charah Solutions, Inc.
12601 Plantside Drive
Louisville, KY 40299

Telephone: 877-314-7724
Fax: 502-245-7398

Note: This SDS covers products from different sources. The concentration of constituents will have minor variances

2. COMPOSITION AND INFORMATION ON INGREDIENTS:

COMPONENT	CAS. NO.	TYPICAL %	EXPOSURE LIMITS	REF.	
CALCIUM OXIDE	1305-78-8	30-36 %	5 MG/M^3	8-HOUR TWA	(OSHA)
			2 MG/M^3	8-HOUR PEL	(ACGIH)
FUSED SILICA OXIDE	60676-86-0	30-40 %	10 MG/M^3	8-HOUR TWA	(ACGIH)
			10 MG/M^3	8-HOUR PEL	(0SHA)
			RESPIRABLE COMPONENT:		
			0.1 MG/M^3	8-HOUR PEL	(OSHA)
			0.1 MG/M^3	8-HOUR PEL	(ACGIH)
MAGNESIUM OXIDE	1309-48-4	10-15 %	5 MG/M^3	8-HOUR PEL	(OSHA)
ALUMINUM OXIDE	1344-28-1	8 - 15 %	10 MG/M^3	8-HOUR TWA	(ACGIH)
SULFUR	7704-34-9	< 2%	ND		
MANGANESE OXIDE	7439-96-5	< 1%	5 MG/M^3	8-HOUR TWA	(ACGIH)
POTASSIUM OXIDE	12136-45-7	< 1 %	ND		
SODIUM OXIDE	12401-86-4	< 1 %	ND		
TITANIUM OXIDE	13463-67-7	< 1%	10 MG/M^3	8-HOUR PEL	(OSHA)
			RESPIRABLE COMPONENT:		
			5 MG/M^3	8-HOUR PEL	(OSHA)
FERRIC OXIDE	1309-37-1	< 1 %	10 MG/M^3	8-HOUR PEL	(OSHA)

Chemical Nature:
As shipped, this product poses no health hazard because its density and moisture content reduce the likelihood that particulate matter will become airborne. If dried and made airborne, non-hazardous dust may be created, which may irritate unprotected eyes.

Hazardous Components:
Slag may contain trace amounts of hazardous constituents such as titanium Oxide, manganese oxide, chromium compounds, sulfur compounds

3. PHYSICAL DATA:

Appearance:	Inert Granular Light Tan to Dark Grey Material
Odor:	No Appreciable Odor
Solubility in Water:	Not Applicable
pH:	8 - 11
Auto-Ignition Temperature:	Not Applicable
Boiling Point:	Not Applicable
Melting Point:	**>** 1000 C
Vapor Pressure:	Not Applicable
Specific Gravity:	2-3
Percent Volatiles:	Not Applicable
Evaporation Rate:	Not Applicable
Particle Size:	Varies, depending on the source.

4. FIRE AND EXPLOSION DATA:

This material is inert, non-flammable, and non-combustible

5. REACTIVITY DATA / HEALTH HAZARD DATA:

Product Stability:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid:	Slag is incompatible with acids, ammonium salts, and aluminum metal

Hazardous Reactions/Decomposition Products:
Hydrogen sulfide (H_2S) may be released when the product is exposed directly to organic or inorganic acids at low pH (pH □ < 5). Hydrogen sulfide is a hazardous, toxic, and poisonous gas. Hydrogen sulfide (H_2S) may be released when the product is exposed to moist, carbon dioxide (CO2)- rich atmospheric conditions.

6. TOXICOLOGICAL PROPERTIES:
This material is non-toxic and has not been identified as a suspect or known carcinogen by NTP, LARC, or OSHA>Toxicological Data.

OCCUPATIONAL EXPOSURE LIMITS FOR COMPONENTS ARE ILLUSTRATED IN SECTION 2

7. PPE / PREVENTABLE MEASURES / SPILL OR LEAK MEASURES:

Eye Protection:
Avoid eye contact with this material. Wear safety glasses.

When generating dust, wear dust or chemical goggles to prevent eye contact. Do not wear contact lenses. Have eye baths readily available where eye contact can occur

Skin Protection:
As required by the nature of the work being done, such as long-sleeve shirts and long pants

Ventilation:
Material is generally damp but be sure to use adequate ventilation and dust collection should the material dry out and become airborne in an enclosed space.

Respiratory Protection:
Where applicable, respirators should be fitted, maintained, and cleaned in accordance with the regulations. Ventilation and other engineering controls are the preferred means of controlling exposures.

If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

Other Preventive Equipment or Practices:
As required by the nature of the work being done. In an enclosed space: minimize dust generation and avoid breathing dust. Practice good housekeeping using a vacuum or wet methods to clean up dust. Practice good personal hygiene by washing hands and face promptly after handling and before eating, drinking, or smoking

Leaks and Spills:
Minimize skin contact and avoid breathing in dust. Wear gloves, long sleeves, and long pants. Material is usually slightly moist and granular, which minimizes potential for dust generation. Ventilate the area of the leak or spill. Wear appropriate personal protective equipment. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal

Waste Disposal Information:
Reclaim material where possible. Dispose of in accordance with all state, provincial, local, and federal legislation. This product, in its present state, is not a hazardous waste under Federal regulations (40 CFR 261) when discarded or disposed of.

Notification:
This material, as supplied, contains no hazardous substances regulated under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302), or any extremely hazardous substances regulated under the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355), and thus the release of this material as supplied has no reporting requirements under these regulations. There may be other specific reporting requirements at the local, regional, or state level pertaining to the release of this material.

Handling Procedures and Equipment:
Where applicable (In an enclosed space), use adequate ventilation and dust collection.

8. FIRST AID:

Eye Contact: Flush the eye(s) with lukewarm water for 15 minutes, including under the eyelids, until the particles have been removed. If irritation persists, obtain medical attention.

Skin Contact: Wash with soap and water. Seek medical attention if irritation occurs. If glass slivers are present, remove promptly, wash the affected area, and apply antibiotic cream or ointment and a sterile dressing. Remove contaminated clothing and launder before reuse. Get medical attention if irritation develops or persists.

Inhalation: Product is considered nuisance dust; overexposure may produce irritation of the eyes and upper respiratory tract. Preexisting medical conditions may be generally aggravated by exposure, including but not limited to Bronchitis, Emphysema, and Asthma. Remove to fresh air. Seek medical attention if irritation or discomfort persists. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult. Get medical attention.

Ingestion: Rare in industry. Give the conscious victim large quantities of water or milk. Do not induce vomiting unless directed by medical personnel.

9. STORAGE AND HANDLING:

This material can be stored in piles exposed to the outside environment. Good housekeeping should be maintained to minimize exposure to excessive dust for employees and the public.

Materials should be handled, stored, and shipped in a manner that prevents or minimizes the evolution of dust.

10. PREPARATION DATE OF SDS:

This SDS was prepared from information provided by raw materials suppliers to SCB.

Date drawn up:	April 2002
Date of latest revision:	May 19, 2026
Version number:	008
SDS number:	02
Contact:	Product Manager, Business Development Manager, VP – Technical Services