

SAFETY DATA SHEET



Date Prepared : 04/02/2015

SDS No : 2014-04

Date Revised : 09/09/2015

Revision No : 4

1. PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Abrasives, roofing products and other aggregate uses

PRODUCT DESCRIPTION: BLACK BEAUTY®

PRODUCT CODE: Coal-Fired Boiler Slag

PRODUCT FORMULATION NAME: Abrasive

GENERIC NAME: BLACK BEAUTY®

MANUFACTURER

Harsco Corporation

Metals & Minerals

5000 Ritter Road

Suite 205

Mechanicsburg, PA 17055

Emergency Contact: EHS Manager

Emergency Phone: 717-506-4666

Alternate Emergency Phone: 888-733-3646

E-Mail: reedcs@harsco.com

24 HR. EMERGENCY TELEPHONE NUMBERS

855-393-9889

Access Code 13793

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Not Classified.

Environmental:

Not Classified.

Physical:

Not Classified.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Solid

IMMEDIATE CONCERNS: BLACK BEAUTY® is not flammable, combustible or explosive; and poses no unusual hazard in an unused condition. During use for abrasive blasting, dust may irritate the respiratory tract, skin and eyes; and may cause inflammation and pulmonary fibrosis.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Silica, Amorphous	40 - 53	60676-86-0
Aluminum Oxide	17 - 25	1344-28-1
Iron Oxide	5 - 31	1309-37-1
Calcium Oxide	3 - 20	1305-78-8
Magnesium Oxide	0.1 - 7	1309-48-4
Potassium Oxide	0.1 - 3	12136-45-7
Titanium Dioxide	0.1 - 2	13463-67-7
Silica, Crystalline	< 0.1	14808-60-7
Manganese	0.01 - 0.05	7439-96-5
Beryllium	0 - 0.001	7440-41-7
Cadmium	0 - 0.001	7440-43-9

4. FIRST AID MEASURES

EYES: Do not rub eyes. Remove contact lenses. Flush eyes thoroughly with water, taking care to rinse under eyelids. If irritation continues, continue flushing for 15 minutes, rinsing from time to time under the eyelids. If discomfort continues, consult a physician.

SKIN: Wash with soap and water. Get medical attention if irritation develops or 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 a vacuum equipped with a HEPA filter. If not possible, gently moisten before collecting with shovel and broom. Dispose of collected materials in accordance 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: Ensure clean-up is conducted by trained personnel wearing appropriate respiratory protection. Avoid inhalation of dust and contact with skin and eyes. Ventilate area if there is excessive airborne dust.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Use work methods that minimize dust production. Keep workplace clean. Observe good industrial hygiene practices.

HANDLING: Follow Safety Data Sheet and label precautions.

STORAGE: Keep container tightly closed. Store away from incompatible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Silica, Amorphous	TWA	20 mpp [1]	80 / %SiO ₂ [1]	[2]	10 [2]
Aluminum Oxide	TWA	[3]	15 [3]		1 R as aluminum metal
Iron Oxide	TWA		10 as iron oxide fume		5
Calcium Oxide	TWA		5		2
Magnesium Oxide	TWA		15 as magnesium oxide fume		10 l
Titanium Dioxide	TWA		15		10
Silica, Crystalline	TWA	[4]	10 / (%SiO ₂ + 2) [4]		0.025 R
Manganese	TWA				0.2

Footnotes:

1. mpp is millions of particles per ft³
2. ACGIH TLV for Particles Not Otherwise Specified is 10 mg/m³ for inhalable particles and 3 mg/m³ for respirable particles.
3. PEL is 15 mg/m³ total dust and 5 mg/m³ respirable particles (as aluminum metal)
4. Respirable PEL = 10 mg/m³ / (%SiO₂ + 2) and Total Dust PEL = 30 mg/m³ / (%SiO₂ + 2)

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

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

SKIN: Use protective gloves. Wear suitable protective clothing.

RESPIRATORY: Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

WORK HYGIENIC PRACTICES: Wash hands after handling. Routinely wash work clothing and protective equipment. 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

APPEARANCE: Black, granular solid

COLOR: Black

pH: 8.2

FLASH POINT AND METHOD: Not Available

FLAMMABLE LIMITS: Not available

VAPOR PRESSURE: Not Available

VAPOR DENSITY: Not Available

BOILING POINT: Not Available

FREEZING POINT: Not Available

MELTING POINT: Not Available

SOLUBILITY IN WATER: None Expected

SPECIFIC GRAVITY: 2.6 - 2.8

VISCOSITY: Not Available

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: None known

POSSIBILITY OF HAZARDOUS REACTIONS: None

HAZARDOUS DECOMPOSITION PRODUCTS: None known

INCOMPATIBLE MATERIALS: Hydrofluoric acid

11. TOXICOLOGICAL INFORMATION

ACUTE

NOTES: Abrasive blasting agents may cause inflammation and pulmonary fibrosis. Ingestion of dusts generated during working operations may cause nausea and vomiting.

EYE EFFECTS: May cause eye irritation.

SKIN EFFECTS: May cause skin irritation.

CHRONIC: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

CARCINOGENICITY

IARC: Coal-Fired boiler slag is not listed by IARC.

NTP: Coal-Fired boiler slag is not listed by the National Toxicology Program in their Annual Report.

OSHA: Coal-Fired boiler slag is not listed by NIOSH on their Occupational Cancer List.

Notes:

ACGIH Carcinogens

- Aluminum oxide (CAS 1344-28-1) A4 Not classifiable as a human carcinogen.
- Beryllium (CAS 7440-41-7) A1 Confirmed human carcinogen.
- Cadmium (CAS 7440-43-9) A2 Suspected human carcinogen.
- Calcium oxide (CAS 1305-78-8) No designation listed.
- Iron oxide (CAS 1309-37-1) A4 Not classifiable as a human carcinogen.
- Magnesium oxide (CAS 1309-48-4) A4 Not classifiable as a human carcinogen.
- Manganese (CAS 7439-96-5) A4 Not classifiable as a human carcinogen.
- Potassium oxide (CAS 12136-45-7) No designation listed.
- Silica, amorphous (CAS 7631-86-9) No designation listed.

- Titanium dioxide (CAS 13463-67-7) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

- Aluminum oxide (CAS 1344-28-1) Not listed.
- Beryllium (CAS 7440-41-7) Group 1. Monographs 58 and 100C (2012).
- Cadmium (CAS 7440-43-9) Group 1. Monographs 58 and 100C (2012).
- Calcium oxide (CAS 1305-78-8) Not listed.
- Iron oxide (CAS 1309-37-1) Not listed.
- Magnesium oxide (CAS 1309-48-4) Not listed.
- Manganese (CAS 7439-96-5) Not listed.
- Potassium oxide (CAS 12136-45-7) Not listed.
- Silica, amorphous (CAS 7631-86-9) Not listed.
- Titanium dioxide (CAS 13463-67-7) Group 2B. Monographs 47 and 93 (2010).

US NTP Report on Carcinogens

- Beryllium (CAS 7440-41-7) Known to be a human carcinogen.
- Cadmium (CAS 7440-43-9) Known to be a human carcinogen.

CORROSIVITY: None known

SENSITIZATION: Not a skin or respiratory sensitizer.

NEUROTOXICITY: None known

GENETIC EFFECTS: None known

REPRODUCTIVE EFFECTS: None known

TARGET ORGANS: Irritation of nose and throat. Irritation of eyes and mucous membranes. May cause respiratory tract irritation. Shortness of breath.

TERATOGENIC EFFECTS: None known

MUTAGENICITY: None known

COMMENTS: Although manufacturer has taken reasonable care in the preparation of this Safety Data Sheet, no warranties are made. Manufacturer makes no representations and assumes no responsibility as to the accuracy or suitability of the Safety Data Sheet for the applications intended by the purchaser.

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 the International Air Transport Association (IATA), International Maritime Dangerous Goods (IMDG) or Transport Canada (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)

Chemical Name	Wt.%	CERCLA RQ
Beryllium	0 - 0.001	10

CERCLA RQ: None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Silica, Amorphous	60676-86-0
Aluminum Oxide	1344-28-1
Iron Oxide	1309-37-1
Calcium Oxide	1305-78-8
Magnesium Oxide	1309-48-4
Potassium Oxide	12136-45-7
Titanium Dioxide	13463-67-7
Silica, Crystalline	14808-60-7
Manganese	7439-96-5
Beryllium	7440-41-7

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

CALIFORNIA PROPOSITION 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

RCRA STATUS: Not regulated.

OSHA HAZARD COMM. RULE: Regulated.

CLEAN WATER ACT: Not covered by any water quality criteria under Section 304.

CARCINOGEN: Boiler slag is not listed by IARC, NIOSH or the NTP as a known or suspected carcinogen. However based

upon the presence of beryllium and cadmium, the product would be classified as a Category 2 Carcinogen pursuant to the GHS Classification System.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

Not Controlled.

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Not controlled.

WHMIS CLASS: This product has been classified in accordance with the hazard criteria of the CPR and the Safety Data Sheet contains all of the information required by the CPR.

DOMESTIC SUBSTANCE LIST (INVENTORY): Listed on Inventory.

MEXICO This Safety Data Sheet has been prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. OTHER INFORMATION

Date Revised: 09/09/2015

REVISION SUMMARY: This SDS replaces the 09/09/2015 SDS. Revised: **Section 16: HMIS RATING - HEALTH.**

HMIS RATING

HEALTH	<input type="checkbox"/>	0
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		A

NFPA CODES

