

# SAFETY DATA SHEET

Date Prepared : 04/02/2015

SDS No : 2014-05

Date Revised : 04/30/2015

Revision No : 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**GENERAL USE:** Abrasives, roofing products and other aggregate uses

**PRODUCT DESCRIPTION:** BLACK BEAUTY® IRON Blend

**GENERIC NAME:** BLACK BEAUTY® IRON Blend

### 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® IRON Blend is not flammable, combustible or explosive; and poses no unusual hazard in the unused condition. During use for abrasive blasting, the dust may irritate the respiratory tract, skin and eyes; and may cause inflammation and pulmonary fibrosis. Refer to Section 3 for a listing of heavy metals that are present in BLACK BEAUTY® Iron. Appropriate care should be taken in the storage and disposal of this product.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

| Chemical Name       | Wt.%          | CAS        |
|---------------------|---------------|------------|
| Iron Oxide          | 20 - 67       | 1309-37-1  |
| Silica, Amorphous   | 28 - 46       | 60676-86-0 |
| Aluminum Oxide      | 3 - 20        | 1344-28-1  |
| Calcium Oxide       | 2 - 6         | 1305-78-8  |
| Magnesium Oxide     | 0.5 - 2       | 1309-48-4  |
| Sulfur Trioxide     | 0.5 - 2       | 7446-11-9  |
| Sodium Oxide        | 0.3 - 2       | 1313-59-3  |
| Copper              | 0.4 - 1       | 7440-50-8  |
| Lead                | 0.15 - 0.25   | 7439-92-1  |
| Molybdenum          | 0.1 - 0.25    | 7439-98-7  |
| Manganese           | 0.02 - 0.07   | 7439-96-5  |
| Zinc                | 0.4 - 2       | 7440-66-6  |
| Arsenic             | 0.01 - 0.04   | 7440-38-2  |
| Nickel              | 0.01 - 0.02   | 7440-02-0  |
| Cadmium             | 0.001 - 0.002 | 7440-43-9  |
| Silica, Crystalline | < 0.1         | 14808-60-7 |

**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 |                   | Supplier OEL |                   |
| Chemical Name                               |      | ppm             | mg/m <sup>3</sup> | ppm       | mg/m <sup>3</sup> | ppm          | mg/m <sup>3</sup> |
| Silica, Amorphous                           | TWA  | 20 mpp          | 80                |           |                   |              |                   |
|   | STEL |                 |                   |           |                   |              |                   |
| Aluminum Oxide                              | TWA  |                 | 15 T,             |           |                   |              |                   |
|   | STEL |                 |                   | 10        |                   |              |                   |
| Calcium Oxide                               | TWA  |                 | 5                 |           | 2                 |              |                   |
| Copper                                      | TWA  |                 | 1                 |           |                   |              |                   |
| Lead  | TWA  |                 | 0.050             |           | 0.05              |              |                   |
| Manganese                                   | TWA  |                 |                   |           | 0.2               |              |                   |
| Nickel                                      | TWA  |                 |                   |           | 1.5 l             |              |                   |
| Silica, Crystalline                         | TWA  | 250mpp          | 10                |           | 0.025             | NL           | NL                |
|   | STEL |                 |                   |           |                   | NL           | NL                |

**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 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

**APPEARANCE:** Black, granular solid

**COLOR:** Black

**pH:** Not Available

**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:** 2.8 - 3.8

**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:** Copper slag (CAS No. 67711-92-6) is not listed by IARC.

**NTP:** Copper slag (CAS No. 67711-92-6) is not listed by the National Toxicology Program in their Annual Report.

**OSHA:** Copper slag (CAS No. 67711-92-6) is not listed by NIOSH on their Occupational Cancer List.

### Notes:

#### ACGIH Carcinogens

- Copper slag (CAS 67711-92-6) No designation listed.
- Aluminum oxide (CAS 1344-28-1) A4 Not classifiable as a human carcinogen.
- 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.
- Arsenic (7440-38-2) A1 Confirmed human carcinogen.
- Cadmium (CAS 7440-43-9) A2 Suspected human carcinogen.
- Copper (CAS 7440-50-8) No designation listed.
- Lead (CAS 7439-92-1) A3 Confirmed animal carcinogen with unknown relevance to humans.
- Manganese (CAS 7439-96-5) A4 Not classifiable as a human carcinogen.

- Nickel (CAS 7440-02-0) A5 Not suspected as a human carcinogen.
- Zinc (CAS 7440-66-6) A4 No designation listed.

### IARC Monographs. Overall Evaluation of Carcinogenicity

- Arsenic (7440-38-2) Group 1. Monographs 23 and 100C (2012).
- Cadmium (CAS 7440-43-9) Group 1. Monographs 58 and 100C (2012).
- Lead (CAS 7439-92-1) Possibly carcinogenic to humans.
- Nickel (CAS 7440-02-0) Possibly carcinogenic to humans.

### US NTP Report on Carcinogens

- Arsenic (7440-38-2) Known to be a human carcinogen.
- Cadmium (CAS 7440-43-9) Known to be a human carcinogen.
- Nickel (CAS 7440-02-0) Reasonably anticipated to be a human carcinogen.
- Lead (CAS 7439-92-1) Reasonably anticipated 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 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:** Arsenic (CAS No. 7440-38-2), Cadmium (CAS No. 7440-43-9), Copper (CAS No. 7440-50-8), Lead (CAS No. 7439-92-1), Manganese (CAS No. 7439-96-5), Nickel (CAS No. 7440-02-0)

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

| Chemical Name  | Wt.%        | CAS       |
|----------------|-------------|-----------|
| Aluminum Oxide | 3 - 20      | 1344-28-1 |
| Lead           | 0.15 - 0.25 | 7439-92-1 |

**302/304 EMERGENCY PLANNING**

**EMERGENCY PLAN:** None

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

| Chemical Name | Wt.%        | CERCLA RQ |
|---------------|-------------|-----------|
| Copper        | 0.4 - 1     | 5,000     |
| Lead          | 0.15 - 0.25 | 10        |
| Arsenic       | 0.01 - 0.04 | 1         |
| Nickel        | 0.01 - 0.02 | 100       |

**CERCLA RQ:** None

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

| Chemical Name       | CAS        |
|---------------------|------------|
| Iron Oxide          | 1309-37-1  |
| Silica, Amorphous   | 60676-86-0 |
| Aluminum Oxide      | 1344-28-1  |
| Calcium Oxide       | 1305-78-8  |
| Magnesium Oxide     | 1309-48-4  |
| Sulfur Trioxide     | 7446-11-9  |
| Sodium Oxide        | 1313-59-3  |
| Copper              | 7440-50-8  |
| Lead                | 7439-92-1  |
| Manganese           | 7439-96-5  |
| Arsenic             | 7440-38-2  |
| Nickel              | 7440-02-0  |
| Silica, Crystalline | 14808-60-7 |

**TSCA STATUS:** Copper slag (CAS No. 67711-92-6) and all of its components are listed on the TSCA Chemical Substance Inventory.

#### CLEAN AIR ACT

| Chemical Name   | Wt.%    | CAS       |
|-----------------|---------|-----------|
| Sulfur Trioxide | 0.5 - 2 | 7446-11-9 |

**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.

| Chemical Name | Wt.%        | Listed   |
|---------------|-------------|--|
| Lead          | 0.15 - 0.25 | <ul style="list-style-type: none"> <li>● Cancer</li> <li>● Developmental Toxicity</li> <li>● Female Reproductive</li> <li>● Male Reproductive</li> </ul> |

**RCRA STATUS:** Not regulated.

**OSHA HAZARD COMM. RULE:** Regulated.

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

**CARCINOGEN:** Copper slag (CAS No. 67711-92-6) is not listed by IARC, NIOSH or the NTP as a known or suspected carcinogen. However based upon the presence of arsenic 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:** 04/30/2015

**REVISION SUMMARY:** This SDS replaces the 04/08/2015 SDS. Revised: **Section 3: Wt.%.**

### HMIS RATING

|                     |  |   |
|---------------------|--|---|
| HEALTH              |  | 1 |
| FLAMMABILITY        |  | 0 |
| PHYSICAL HAZARD     |  | 0 |
| PERSONAL PROTECTION |  | A |

### NFPA CODES

