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### **1** Identification

#### Product identifier

#### • Trade name: <u>BLACK BEAUTY</u> • Product code: Coal-Fired Boiler Slag

Product code: Coal-Fired Boller Slag

## <sup>•</sup> Recommended use and restriction on use

• Recommended use: Abrasives

• **Restrictions on use:** No relevant information available.

# Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: Harsco Corporation Harsco Environmental 350 Poplar Church Road Camp Hill, PA 17011

Phone: 717-763-7064 E-Mail: reedcs@harsco.com

#### • Emergency telephone number:

Emergency Contact: Verisk 3E Emergency Phone: 855-393-9889 (Access Code: 13793) Manufacturer Contact: Customer Service Department Manufacturer Emergency Phone: 888-733-3646 ext. 2

#### 2 Hazard(s) identification

#### <sup>•</sup> Classification of the substance or mixture

Classification references product both as delivered and as a fine dust generated during use. Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

Carc. 1B H350 May cause cancer. Route of exposure: Inhalation.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.

#### <sup>·</sup> Label elements

#### <sup>·</sup> GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms:



# · Signal word: Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

H350 May cause cancer. Route of exposure: Inhalation.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.

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	(Cont'd. of page 1)
Precautionary st	atements:
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.
P302+P352	If on skin: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P33	8 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

• Other hazards There are no other hazards not otherwise classified that have been identified.

# **3** Composition/information on ingredients

# · Chemical characterization: Mixtures

60676-86-0	Silica, fused	40-53%
1309-37-1	Red Iron Oxide	5-31%
1344-28-1	Aluminum oxide	17-25%
	🕸 STOT RE 2, H373	
1305-78-8	Calcium oxide	3-20%
	Eye Dam. 1, H318 Skin Irrit. 2, H315; STOT SE 3, H335	
1000 10 1		0.4.70/
	Magnesium oxide	0.1-7%
12136-45-7	Dipotassium oxide	0.1-3%
	Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	
13463-67-7	Titanium dioxide	0.1-2%
	🚸 Carc. 2, H351	
14808-60-7	Quartz (SiO2)	<0.1%
	🕸 Carc. 1A, H350; STOT RE 1, H372	
7439-96-5	Manganese	0.01-0.05
7440-41-7	Beryllium	0-0.0005
	Acute Tox. 3, H301; Acute Tox. 2, H330	
	& Carc. 1B, H350; STOT RE 1, H372	
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
7440-43-9	Cadmium (non-pyrophoric)	<0.001%
	🛞 Acute Tox. 3, H301; Acute Tox. 2, H330	

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Muta. 2, H341; Carc. 1B, H350; Repr. 2, H361; STOT RE 1, H372
 Additional information: For the wording of the listed Hazard Statements, refer to section 16.

## 4 First-aid measures

<ul> <li>Description of first aid measures</li> <li>After inhalation: Supply fresh air. Provide oxygen treatment if affected person has difficulty breathing.</li> </ul>
If experiencing respiratory symptoms: Call a doctor.
After skin contact:
Brush off loose particles from skin.
Wash with soap and water.
If skin irritation continues, consult a doctor.
· After eye contact:
Protect unharmed eye. Remove contact lenses if worn.
Remove contact lenses if worn. Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
Most important symptoms and effects, both acute and delayed:
Coughing
Breathing difficulty
Mechanical irritation to eyes and skin.
Strong irritant with the danger of severe eye injury.
Danger:
Danger of impaired breathing.
Causes serious eye damage.
May cause cancer. Route of exposure: Inhalation.
May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation. • Indication of any immediate medical attention and special treatment needed:
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.
If medical advice is needed, have product container or label at hand.
5 Fire-fighting measures

## Extinguishing media

• Suitable extinguishing agents: Use fire fighting measures that suit the environment.

• For safety reasons unsuitable extinguishing agents: No relevant information available.

Special hazards arising from the substance or mixture No relevant information available.

#### Advice for firefighters

#### Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

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## 6 Accidental release measures

# Personal precautions, protective equipment and emergency procedures

Isolate area and prevent access.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

• Environmental precautions Do not allow to enter sewers/ surface or ground water.

# Methods and material for containment and cleaning up

Sweep up and place into an appropriate container. Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

## <sup>•</sup> Reference to other sections

See Section 7 for information on safe handling.

- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

# 7 Handling and storage

#### Handling

- Precautions for safe handling: Use only in well ventilated areas.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

- Do not store together with acids.
- Further information about storage conditions: Keep containers tightly sealed.

• Specific end use(s) No relevant information available.

# 8 Exposure controls/personal protection

#### Control parameters

· Components with limit values that require monitoring at the workplace:		
60676-86-0 Sili	ica, fused	
PEL (USA)	20mppcf or 80mg/m3 /%SiO2	
TLV (USA)	TLV withdrawn	
EV (Canada)	Long-term value: 0.1 mg/m <sup>3</sup> respirable	
LMPE (Mexico)	Long-term value: 0.1 mg/m <sup>3</sup> (j)	
1309-37-1 Red Iron Oxide		
PEL (USA)	Long-term value: 10* mg/m <sup>3</sup> *Fume	
	(Cont'd. on page 5)	

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		(Cont'd. of page 4)
REL (USA)	Long-term value: 5 mg/m <sup>3</sup>	(Cont d. of page 4)
	Dust & fume, as Fe	
TLV (USA)	Long-term value: 5* mg/m <sup>3</sup>	
	*as respirable fraction	
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 5* 10*** 3**** mg/m <sup>3</sup>	
	*dust & fume**fume; Rouge: ***total dust****resp.	
EV (Canada)	Long-term value: $5^* 10^{**} \text{ mg/m}^3$	
	*respirable, including Rouge;**total dust	
LMPE (Mexico)	Long-term value: 5* mg/m <sup>3</sup>	
	A4, *fracción respirable	
1344-28-1 Alum		
PEL (USA)	Long-term value: 15*; 5** mg/m <sup>3</sup> *Total dust; ** Respirable fraction	
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> as Al*Total dust**Respirable/pyro powd./welding f.	
TLV (USA)	Long-term value: 1* mg/m <sup>3</sup>	
	as AI; *as respirable fraction	
EL (Canada)	Long-term value: 1.0 mg/m <sup>3</sup> respirable, as Al	
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> total dust	
LMPE (Mexico)	Long-term value: 1* mg/m <sup>3</sup> A4, *fracciòn respirable	
1305-78-8 Calc	•	
PEL (USA)	Long-term value: 5 mg/m <sup>3</sup>	
REL (USA)	Long-term value: 2 mg/m <sup>3</sup>	
TLV (USA)	Long-term value: 2 mg/m <sup>3</sup>	
EL (Canada)	Long-term value: 2 mg/m <sup>3</sup>	
EV (Canada)	Long-term value: 2 mg/m <sup>3</sup>	
LMPE (Mexico)	Long-term value: 2 mg/m <sup>3</sup>	
1309-48-4 Magi	nesium oxide	
PEL (USA)	Long-term value: 15* mg/m <sup>3</sup> fume; *total particulate	
TLV (USA)	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction	
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 10* 3** mg/m <sup>3</sup> *inhalable fume;**respirable dust and fume	
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> inhalable	
LMPE (Mexico)	Long-term value: 10* mg/m <sup>3</sup> A4, *fracción respirable	
13463-67-7 Tita	nium dioxide	
PEL (USA)	Long-term value: 15* mg/m <sup>3</sup>	
		(Cont'd. on page 6)

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· · · · · · · · · · · · · · · · · · ·	*total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m <sup>3</sup>
EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup>
(ounddd)	*total dust;**respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup>
	total dust
LMPE (Mexico)	Long-term value: 10 mg/m <sup>3</sup> A4
14808-60-7 Qua	artz (SiO2)
PEL (USA)	Long-term value: 0.05* mg/m <sup>3</sup>
REL (USA)	Long-term value: 0.025* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m <sup>3</sup>
127 (00/1)	*as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m <sup>3</sup>
	ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m <sup>3</sup> *respirable fraction
LMPE (Mexico)	Long-term value: 0.025* mg/m <sup>3</sup> A2, *fracción respirable
The usual preca Keep away from Wash hands bef Avoid contact wi Engineering co Breathing equi Suitable respirat	ory protective device recommended. ved dust respirator should be used for operations generating dust.
Protecti	ve gloves
Wear gloves for protection against thermal and mechanical hazards according to OSHA and NIOSH rules. • Eye protection:	
Safety g	glasses
Body protection	national guidelines concerning the use of protective eyewear. <b>n:</b> Protective work clothing
	d supervision of exposure into the environment
ino relevant infor	rmation available. (Cont'd. on page 7)

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· Risk management measures No relevant information available.

#### 9 Physical and chemical properties Information on basic physical and chemical properties · Appearance: Form: Granular or powdered solid. Color: Black · Odor: Odorless Odor threshold: Not determined. · pH-value: Not applicable. • Melting point/Melting range: Not determined. · Boiling point/Boiling range: Not determined. · Flash point: The product is not flammable. · Flammability (solid, gaseous): Not determined. · Auto-ignition temperature: Not determined. • Decomposition temperature: Not determined. · Danger of explosion: Product does not present an explosion hazard. · Explosion limits Lower: Not determined. Upper: Not determined. · Oxidizing properties: Non-oxidizing. · Vapor pressure: Not determined. · Density: 2.6-2.8 g/cm3 (21.7-23.37 lbs/gal) · Relative density: Not determined. · Vapor density: Not applicable. · Evaporation rate: Not applicable. · Solubility in / Miscibility with Water: Insoluble. · Partition coefficient (n-octanol/water): Not determined. · Viscosity **Dynamic:** Not applicable. Kinematic: Not applicable. Other information No relevant information available.

# 10 Stability and reactivity

· Reactivity: No relevant information available.

\* Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

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## **Trade name: BLACK BEAUTY**

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- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No relevant information available.

# <sup>·</sup> Incompatible materials

Alkalis.

Acids.

<sup>•</sup> Hazardous decomposition products

Under fire conditions only:

1 Toxicological information	
<ul> <li>Information on toxicological effects</li> <li>Acute toxicity: Based on available data, the classification criteria are not met.</li> </ul>	
· LD/LC50 values that are relevant for classification:	
13463-67-7 Titanium dioxide	
Oral  LD50 >20000 mg/kg (rat)	
Dermal LD50 >10000 mg/kg (rabbit)	
· Primary irritant effect:	
• On the skin: Irritant to skin and mucous membranes.	
• On the eye: Strong irritant with the danger of severe eye injury.	
Sensitization: Based on available data, the classification criteria are not met.	
· Carcinogenic categories	
· IARC (International Agency for Research on Cancer):	
1309-37-1 Red Iron Oxide	
13463-67-7 Titanium dioxide	
14808-60-7 Quartz (SiO2)	
7440-41-7 beryllium	
7440-43-9 cadmium (pyrophoric)	
NTP (National Toxicology Program):	
14808-60-7 Quartz (SiO2)	
7440-41-7 beryllium	
7440-43-9 cadmium (pyrophoric)	
· OSHA-Ca (Occupational Safety & Health Administration):	
7440-43-9 cadmium (pyrophoric)	
· Probable route(s) of exposure:	
Ingestion.	
Inhalation.	
Eye contact. Skin contact.	
<sup>•</sup> Acute effects (acute toxicity, irritation and corrosivity):	
Causes serious eye damage.	
Irritating to respiratory system and skin.	
• <b>Repeated dose toxicity:</b> Possible risk of irreversible effects.	
· Germ cell mutagenicity: Based on available data, the classification criteria are not met.	(Cont'd. on pa
	( <b> p</b>

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· Carcinogenicity: May cause cancer. Route of exposure: Inhalation.

• **Reproductive toxicity:** Based on available data, the classification criteria are not met.

• STOT-single exposure: May cause respiratory irritation.

· STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation. **Aspiration hazard:** Based on available data, the classification criteria are not met.

# **12 Ecological information**

#### Toxicity

Aquatic toxicity No relevant information available.

- Persistence and degradability No relevant information available.
- Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.

#### Additional ecological information

#### General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Other adverse effects No relevant information available.

# **13 Disposal considerations**

#### Waste treatment methods

#### Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

#### Uncleaned packagings

\* Recommendation: Disposal must be made according to official regulations.

UN-Number		
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
UN proper shipping name		
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
Transport hazard class(es)		
DOT, ADR/RID/ADN, IMDG, IATA		
Class	Not regulated.	
Packing group		
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
Environmental hazards	Not applicable.	

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		(Cont'd. of page 9)
<sup>•</sup> Special precautions for user	Not applicable.	
<sup>·</sup> Transport in bulk according to Annex	ll of	
MARPOL73/78 and the IBC Code	Not applicable.	

# 15 Regulatory information

<ul> <li>Safety, health and environmental regulations/legislation specific for the substance or mixture</li> <li>United States (USA)</li> <li>SARA</li> </ul>
<ul> <li>Section 302 (extremely hazardous substances):</li> </ul>
None of the ingredients are listed.
· Section 355 (extremely hazardous substances):
None of the ingredients are listed.
· Section 313 (Specific toxic chemical listings):
1344-28-1 Aluminum oxide
· TSCA (Toxic Substances Control Act)
All ingredients are listed or exempt.
<sup>·</sup> Proposition 65 (California)
· Chemicals known to cause cancer:
13463-67-7 Titanium dioxide
14808-60-7 Quartz (SiO2)
7440-41-7 beryllium
7440-43-9 cadmium (pyrophoric)
· Chemicals known to cause developmental toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity for males:
7440-43-9 cadmium (pyrophoric)
· Chemicals known to cause developmental toxicity:
7440-43-9 cadmium (pyrophoric)
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· IARC (International Agency for Research on Cancer):
60676-86-0 Silica, fused 3
1309-37-1 Red Iron Oxide 3
13463-67-7 Titanium dioxide 2B
14808-60-7 Quartz (SiO2) 1
7440-41-7 beryllium 1
7440-43-9 cadmium (pyrophoric) 1

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#### **16 Other information** This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. <sup>·</sup> Relevant phrases H290 May be corrosive to metals. H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. Route of exposure: Inhalation. H351 Suspected of causing cancer. Route of exposure: Inhalation. H361 Suspected of damaging fertility or the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation. · Date of preparation / last revision December 18, 2019 / -<sup>•</sup> Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 2: Acute toxicity - Category 2 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A Skin Sens. 1: Skin sensitisation - Category 1 Muta. 2: Germ cell mutagenicity - Category 2 Carc. 1A: Carcinogenicity - Category 1A Carc. 1B: Carcinogenicity – Category 1B Carc. 2: Carcinogenicity – Category 2 Repr. 2: Reproductive toxicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 1: Specific target organ toxicity (repeated exposure) - Category 1 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

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Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers