MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name BLACK BEAUTY® GLASS

Version # 01

Issue date 23-April-2014

Revision date Supersedes date -

CAS # 65997-17-3
Product code Crushed Glass

Product use Abrasives and Roofing Products and Other Aggregate Uses.

Manufacturer/Supplier Harsco

P.O. Box 0515, Camp Hill, PA 17001-0515

reedcs@harsco.com

717-506-4666 855-393-9889 Access code 13793

2. Hazards Identification

Emergency

Physical state Solid.
Emergency overview WARNING

Abrasive blasting agents may cause inflammation and pulmonary fibrosis. Dust may irritate the

respiratory tract, skin and eyes.

OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.

Potential health effects

Routes of exposure Inhalation. Eye contact. Skin contact.

Eyes Dust in the eyes will cause irritation. May cause redness and pain.

Skin Dust may irritate skin.

Inhalation Dust may irritate throat and respiratory system and cause coughing. Abrasive blasting agents may

cause inflammation and pulmonary fibrosis.

Ingestion Ingestion of dusts generated during working operations may cause nausea and vomiting.

Target organs Eyes. Respiratory system.

Chronic effects Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung

diseases.

Signs and symptoms Irritation of nose and throat. Irritation of eyes and mucous membranes.

Potential environmental effects The 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.

3. Composition / Information on Ingredients

Components	CAS#	Percent
Glass, oxide, chemicals	65997-17-3	100
Constituents	CAS#	Percent
Silicon dioxide	7631-86-9	70-80
Sodium oxide	12401-86-4	10-15
Calcium oxide	1305-78-8	5-15
Aluminum oxide	1344-28-1	0-2
Potassium Oxide	12136-45-7	0-1
Magnesium oxide	1309-48-4	0-1
Iron oxide	1309-37-1	0-1
Silicon dioxide, crystalline	14808-60-7	<1

Constituents CAS# **Percent**

7440-41-7 0-0.0001 Beryllium

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in

percent by volume.

4. First Aid Measures

First aid procedures

Do not rub eyes. Remove any contact lenses. Flush eyes thoroughly with water, taking care to Eve contact

rinse under eyelids. If irritation persists, continue flushing for 15 minutes, rinsing from time to time

under eyelids. If discomfort continues, consult a physician.

Contact with dust: Wash with soap and water. Get medical attention if irritation develops or Skin contact

persists.

Inhalation Move to fresh air. Get medical attention if discomfort persists.

Rinse mouth thoroughly if dust is ingested. Do not induce vomiting. Get medical attention if any Ingestion

discomfort continues.

Notes to physician Treat symptomatically.

General advice Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties The product is non-combustible.

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

Use fire-extinguishing media appropriate for surrounding materials.

None known.

Protection of firefighters

Specific hazards arising

from the chemical

None known.

Protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Move container from fire area if it can be done without risk. Cool containers with flooding quantities

of water until well after fire is out.

General fire hazards The product is non-combustible.

6. Accidental Release Measures

Avoid generation and spreading of dust. Avoid inhalation of dust and contact with skin and eyes. Personal precautions

Wear suitable protective clothing. Use personal protection recommended in Section 8 of the

MSDS.

Environmental precautions

Methods for containment Methods for cleaning up

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Collect dust using a vacuum cleaner equipped with HEPA filter. If not possible, gently moisten dust with water fog before it is collected with shovel, broom or the like. Avoid dust formation. After

removal flush contaminated area thoroughly with water.

Never return spills to original containers for re-use.

Other information Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Use

work methods which minimize dust production. Keep the workplace clean. Observe good industrial

hygiene practices.

Keep container tightly closed. Store away from incompatible materials. **Storage**

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Туре	Value	Form
Glass, oxide, chemicals (CAS 65997-17-3)	TWA	1 fibers/cm3	Fiber.
		5 mg/m3	Inhalable fraction.
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	TWA	0.00005 mg/m3	Inhalable fraction.
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	
US. OSHA Table Z-1 Limits for Air	Contaminants (29 CFR 1910.1	000)	
Constituents	Туре	Value	Form
Iron oxide (CAS 1309-37-1)	PEL	10 mg/m3	Fume.
Magnesium oxide (CAS 1309-48-4)	PEL	15 mg/m3	Total particulate.
Aluminum oxide (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
Calcium oxide (CAS 1305-78-8)	PEL	5 mg/m3	
US. OSHÁ Table Z-2 (29 CFR 1910)	1000)		
Constituents	Туре	Value	
Beryllium (CAS 7440-41-7)	Ceiling	0.005 mg/m3	
US. OSHA Table Z-3 (29 CFR 1910)	TWA	0.002 mg/m3	
Constituents	Туре	Value	Form
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
(5.15 11000 00 1)		0.1 mg/m3	Respirable.
		2.4 millions of	Respirable.
		particle	•
Silicon dioxide (CAS 7631-86-9)	TWA	0.8 mg/m3	
1001 00-01		20 mppcf	
Canada. Alberta OELs (Occupation	nal Health & Safety Code, Sch	edule 1, Table 2)	
Material	Туре	Value	Form
Glass, oxide, chemicals	TWA	0.2 fibers/cm3	Fiber.
(CAS 65997-17-3)		F ! 0	Tatal martisulata
		5 mg/m3	Total particulate.
Constituents	Turno	5 mg/m3	Fiber, total
Constituents	Type	Value	Form
Beryllium (CAS 7440-41-7)	STEL	0.01 mg/m3	
	TWA	0.002 mg/m3	
<u></u>			
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.025 mg/m3	
	TWA	0.025 mg/m3 5 mg/m3	Respirable particles Respirable.

BLACK BEAUTY® GLASS CPH MSDS NA

10 mg/m3

Fume.

TWA

Magnesium oxide (CAS

1309-48-4)

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Constituents	Туре	Value Form	
Aluminum oxide (CAS	TWA	10 mg/m3	
1344-28-1) Calcium oxide (CAS	TWA	2 mg/m3	
1305-78-8)		•	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Material	Туре	Value	Form
Glass, oxide, chemicals (CAS 65997-17-3)	TWA	0.2 fibers/cm3	Fiber.
		5 mg/m3	Inhalable fibers.
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	STEL	0.01 mg/m3	
	TWA	0.002 mg/m3	
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Iron oxide (CAS 1309-37-1)	STEL	10 mg/m3	Fume.
	TWA	5 mg/m3	Dust.
		5 mg/m3	Fume.
		3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.
Magnesium oxide (CAS 1309-48-4)	STEL	10 mg/m3	Respirable dust and/or fume.
,	TWA	3 mg/m3	Respirable dust and/or fume.
		10 mg/m3	Inhalable fume.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable.
Silicon dioxide (CAS 7631-86-9)	TWA	4 mg/m3	Total
•		1.5 mg/m3	Respirable.
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	·

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Material	Туре	Value	Form
Glass, oxide, chemicals (CAS 65997-17-3)	TWA	1 fibers/cm3	Fiber.
,		5 mg/m3	Inhalable fraction.
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	TWA	0.00005 mg/m3	Inhalable fraction.
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Material	Туре	Value	Form
Glass, oxide, chemicals (CAS 65997-17-3)	TWA	1 fibers/ml	Respirable fibers.
		5 mg/m3	Inhalable
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	STEL	0.01 mg/m3	
	TWA	0.002 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Constituents	Туре	Value	Form
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Silicon dioxide (CAS 7631-86-9)	TWA	10 mg/m3	
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Material	Туре	Value	Form
Glass, oxide, chemicals	TWA	1 fibres/cm3	Fiber.
(CAS 65997-17-3)		(non-asbe	
		10 mg/m3	Total dust.
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	TWA	0.00015 mg/m3	
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m3	Dust and fume.
		10 mg/m3	Total dust.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Fume.
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3	Total dust.
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Respirable dust.
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	

Mexico. Occupational Exposure Limit Values

Material	Туре	Value	Form
Glass, oxide, chemicals (CAS 65997-17-3)	TWA	10 mg/m3	Dust.
Constituents	Туре	Value	Form
Beryllium (CAS 7440-41-7)	TWA	0.002 mg/m3	
Silicon dioxide, crystalline (CAS 14808-60-7)	TWA	0.1 mg/m3	
Iron oxide (CAS 1309-37-1)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Fume.
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3	
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m3	

Exposure guidelines

Canada - British Columbia OELs: Skin designation

Beryllium (CAS 7440-41-7)

Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Beryllium (CAS 7440-41-7)

Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Beryllium (CAS 7440-41-7)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Beryllium (CAS 7440-41-7)

Can be absorbed through the skin.

Engineering controlsUse process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields. Use tight fitting goggles if dust is generated.

Skin protection Use protective gloves. Wear suitable protective clothing.

Respiratory protection 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.

General hygiene considerations

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

9. Physical & Chemical Properties

Appearance Not available.

Physical stateSolid.FormSolid.

Color Not available. Odorless. Odor Not available. **Odor threshold** Not available. pН Not available. Vapor pressure Not available. Vapor density Not available. **Boiling** point Melting point/Freezing point Not available. Solubility (water) Negligible. 2.5 Specific gravity

Flash point Flammability limits in air,

Flammability limits in air, upper, % by volume

Not available. Not available.

Flammability limits in air,

lower, % by volume

Not available.

Auto-ignition temperature Not available.

10. Chemical Stability & Reactivity Information

Chemical stabilityThe product is stable and non reactive under normal conditions of use, storage and transport.

Conditions to avoidNone known.Incompatible materialsHydrofluoric acid.Hazardous decompositionNone known.

products

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization Not a skin or respiratory sensitizer.

Acute effects Abrasive blasting agents may cause inflammation and pulmonary fibrosis. Ingestion of dusts

generated during working operations may cause nausea and vomiting.

Local effects May cause eye, skin and respiratory tract irritation.

Chronic effects Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung

diseases.

Carcinogenicity May cause cancer.

Iron oxide (CAS 1309-37-1)

Magnesium oxide (CAS 1309-48-4)

ACGIH Carcinogens

Aluminum oxide (CAS 1344-28-1)

A4 Not classifiable as a human carcinogen.

Beryllium (CAS 7440-41-7)

A1 Confirmed human carcinogen.

Glass, oxide, chemicals (CAS 65997-17-3)

A3 Confirmed animal carcinogen with unknown relevance to

humans.

A4 Not classifiable as a human carcinogen. A4 Not classifiable as a human carcinogen. A4 Not classifiable as a human carcinogen.

Silicon dioxide, crystalline (CAS 14808-60-7)

A2 Suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Beryllium (CAS 7440-41-7) 1 Carcinogenic to humans.

Iron oxide (CAS 1309-37-1)

3 Not classifiable as to carcinogenicity to humans.

Silicon dioxide (CAS 7631-86-9)

3 Not classifiable as to carcinogenicity to humans.

Silicon dioxide, crystalline (CAS 14808-60-7) 1 Carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen

Beryllium (CAS 7440-41-7) Known To Be Human Carcinogen. Silicon dioxide, crystalline (CAS 14808-60-7) Known To Be Human Carcinogen.

MutagenicityNot classified.Reproductive effectsNot classified.

Symptoms and target organs Irritation of nose and throat. Irritation of eyes and mucous membranes. May cause respiratory

tract irritation. Shortness of breath.

12. Ecological Information

Ecotoxicity The 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.

Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability The product is not biodegradable.

Bioaccumulation / The product is not bioaccumulating.

Accumulation

13. Disposal Considerations

Waste codes

The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal instructionsDispose in accordance with all applicable regulations. **Waste from residues / unused**Dispose in accordance with all applicable regulations.

waste from residues / unused

Contaminated packaging

products

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Not regulated as a hazardous material by DOT.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Bervllium (CAS 7440-41-7)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Aluminum oxide (CAS 1344-28-1) 1.0 % Beryllium (CAS 7440-41-7) 0.1 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Aluminum oxide (CAS 1344-28-1) Listed.
Beryllium (CAS 7440-41-7) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

Drug Enforcement

Not controlled

Inventory name

Administration (DEA) (21 CFR

Country(s) or region

1308.11-15)

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS

contains all the information required by the CPR.

WHMIS status Non-controlled

Inventory status

Country(s) or region	inventory name	On inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

^{*}A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

Toxic Substances Control Act (TSCA) Inventory

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations

United States & Puerto Rico

WARNING: This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Aluminum oxide (CAS 1344-28-1)

Beryllium (CAS 7440-41-7)

Calcium oxide (CAS 1305-78-8)

Class, oxide, chemicals (CAS 65997-17-3)

Listed.

Iron oxide (CAS 1309-37-1)

Listed.

Magnesium oxide (CAS 1309-48-4)

Silicon dioxide (CAS 7631-86-9)

Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Beryllium (CAS 7440-41-7) Listed.
Glass, oxide, chemicals (CAS 65997-17-3) Listed.
Silicon dioxide, crystalline (CAS 14808-60-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Beryllium (CAS 7440-41-7)

Glass, oxide, chemicals (CAS 65997-17-3)

Silicon dioxide, crystalline (CAS 14808-60-7)

Listed: October 1, 1987 Carcinogenic.

Listed: July 1, 1990 Carcinogenic.

Listed: October 1, 1988 Carcinogenic.

US. Massachusetts RTK - Substance List

Aluminum oxide (CAS 1344-28-1)

Beryllium (CAS 7440-41-7)

Calcium oxide (CAS 1305-78-8)

Class, oxide, chemicals (CAS 65997-17-3)

Listed.

Iron oxide (CAS 1309-37-1)

Listed.

Magnesium oxide (CAS 1309-48-4)

Listed.

BLACK BEAUTY® GLASS CPH MSDS NA

Yes

On inventory (yes/no)*

Silicon dioxide (CAS 7631-86-9)

Listed.
Silicon dioxide, crystalline (CAS 14808-60-7)

Listed.

US. New Jersey Worker and Community Right-to-Know Act

Aluminum oxide (CAS 1344-28-1)

Beryllium (CAS 7440-41-7)

Calcium oxide (CAS 1305-78-8)

Glass, oxide, chemicals (CAS 65997-17-3)

Iron oxide (CAS 1309-37-1)

Magnesium oxide (CAS 1309-48-4)

Potassium Oxide (CAS 12136-45-7)

Silicon dioxide (CAS 7631-86-9)

Silicon dioxide, crystalline (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminum oxide (CAS 1344-28-1)

Beryllium (CAS 7440-41-7)

Calcium oxide (CAS 1305-78-8)

Glass, oxide, chemicals (CAS 65997-17-3)

Iron oxide (CAS 1309-37-1)

Magnesium oxide (CAS 1309-48-4)

Silicon dioxide (CAS 7631-86-9)

Silicon dioxide, crystalline (CAS 14808-60-7)

Mexico regulations

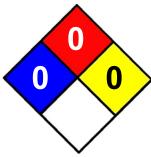
This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA. A HMIS® Health rating including an * indicates a chronic hazard.

NFPA Ratings



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

BLACK BEAUTY® GLASS CPH MSDS NA

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