

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Green Diamond Performance Foundry Products: AFS85, AFS100, AFS115, AFS130, AFS145, 200 Flour, 40x100, 50x100, 50x140, 70x140, 140x270, 4F, 8F, 16F, 45F, 305F, 20F, Doghouse blend or blend of any listed.

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Foundry

### 1.3. Name, Address, and Telephone of the Responsible Party

Green Diamond Performance Materials

PO Box D

Riddle, OR

97469 USA

t: 541-874-3111

### 1.4. Emergency Telephone Number: (541) 874-3111

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

Skin Sens. 1 H317

Full text of hazard classes and H-statements : see section 16

### 2.2. Label Elements

#### GHS-US Labeling

**Hazard Pictograms (GHS-US)** :



**GHS07**

**Signal Word (GHS-US)**

: Warning

**Hazard Statements (GHS-US)**

: H317 - May cause an allergic skin reaction.

**Precautionary Statements (GHS-US)**

: P261 - Avoid breathing vapors, mist, or spray.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P302+P352 - If on skin: Wash with plenty of water.  
P321 - Specific treatment (see section 4 on this SDS).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P363 - Wash contaminated clothing before reuse.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Synonyms	Product Identifier	%	GHS US classification
Silica, amorphous, precipitated and gel	Precipitated silica / Silica gel / Silica gel, precipitated, crystalline free / Silica, amorphous, gel / Silica gel, crystalline free / Silica gel, precipitated, crystalline-free / Precipitated silica and silica gel / Silica gel, crystalline-free / Hydrated silica / Amorphous silicon dioxide / Synthetic amorphous silicon dioxide / Silica gel, precipitated / Dioxosilane / HYDRATED SILICA / Silica gel, crystal-free / Silica, amorphous and synthetic, precipitated and gel	(CAS-No.) 112926-00-8	40 - 60	Not classified
Magnesium oxide (MgO)	Calcined magnesite / Magnesium oxide / MAGNESIUM OXIDE / Magnesia	(CAS-No.) 1309-48-4	20 - 40	Not classified
Iron oxide (FeO)	Ferrous oxide / Iron(II) oxide / C.I. 77489 / CI 77489 / Ferrous monoxide / Iron oxide	(CAS-No.) 1345-25-1	10 – 20	Not classified
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	Aluminum oxide / .alpha.-Alumina / Alumina / Aluminium oxide / Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> ) / .alpha.-Aluminum oxide / Alundum / ALUMINA / Dialuminium trioxide / Dialuminum trioxide	(CAS-No.) 1344-28-1	1 – 5	Not classified
Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> )	C.I. 77288 / C.I. Pigment Green 17 / Chromic oxide / Chromium Oxide Green / Chromium(3+) oxide / Dichromium trioxide / Chromium(III) oxide / Chromium sesquioxide / CHROMIUM OXIDE GREENS / Pigment Green 17 / Chromium(III) oxide (Cr <sub>2</sub> O <sub>3</sub> ) / Dichromium(III) trioxide / Chromium oxide green / CI 77288 / Chromium oxide / Chromium (III) oxide (Cr <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1308-38-9	<1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Sens. 1, H317
Calcium oxide	Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO) / Lime (calcium oxide)	(CAS-No.) 1305-78-8	<1	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Nickel oxide	Black Nickel Oxide/ Green Nickel Oxide/ <b>Mononickel Oxide</b> / Nickel Monoxide / Nickelous Oxide / Nickel Oxide (NiO) / Nickel (II) Oxide / Nickel (2+) Oxide.	(CAS-No.) 11099-02-8	<0.1	Carc 1A, H350 Skin Sens. 1, H317

Full text of H-phrases: see section 16

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation/rash develops or persists.

**First-aid Measures After Eye Contact:** Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for at least 15 minutes. Obtain medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**Symptoms/Injuries:** Skin sensitization.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Repeated or prolonged contact with skin may cause dermatitis.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Non-flammable, Non-combustible

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Stable. Keep dry until use. These products may react with water, resulting in a slight release of heat, depending on the amount of lime (Calcium oxide) present. Avoid contact with incompatible materials.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Halogenated hydrocarbons. Hydrochloric acid. Phosgene. Metal oxides.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid breathing dust. Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Iron oxide present in this product may become unstable at temperatures above 120°F (49°C) and slowly auto-oxide to Fe<sub>2</sub>O<sub>3</sub> to release additional heat which could be sufficient to cause combustible materials to ignite.

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing dust.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Acids, oxidizers, acid chlorides, halogenated compounds, acid anhydrides. . Reducing agents. Moisture.

### 7.3. Specific End Use(s)

Construction aggregate, concrete aggregate, asphalt aggregate, asphalt concrete, industrial process aggregate.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Magnesium oxide (MgO) (1309-48-4)		
USA ACGIH	ACGIH OEL TWA	10 mg/m <sup>3</sup> (inhalable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA IDLH	IDLH	750 mg/m <sup>3</sup> (fume)
USA OSHA	OSHA PEL (TWA) [1]	15 mg/m <sup>3</sup> (fume, total particulate)
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) (1344-28-1)		
USA ACGIH	ACGIH OEL TWA	10 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [1]	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> ) (1308-38-9)		
USA ACGIH	ACGIH OEL TWA	0.05 mg/m <sup>3</sup> 0.5 (Cr II & Cr III Compounds) 0.05 (Cr VI Water Soluble)
USA OSHA	OSHA PEL (TWA) [1]	1 mg/m <sup>3</sup> (metal) 0.5 (Cr II & Cr III Compounds) 0.005 (Cr VI Compounds)
Calcium oxide (1305-78-8)		
USA ACGIH	ACGIH OEL TWA	2 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA)	2 mg/m <sup>3</sup>
USA IDLH	IDLH	25 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [1]	5 mg/m <sup>3</sup>
Silica, amorphous, precipitated and gel (112926-00-8)		
USA OSHA	OSHA PEL (TWA) [2]	20 mppcf , 80/(SiO <sub>2</sub> ) mg/m <sup>3</sup> (See 29 CFR 1910.1000 TABLE Z-3)

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## 8.2. Exposure Controls

**Appropriate Engineering Controls** : Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment** : Gloves. Protective clothing. Protective goggles.



**Materials for Protective Clothing** : Chemically resistant materials and fabrics.

**Hand Protection** : Wear protective gloves.

**Eye and Face Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information** : When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	Grey, green granular solid
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Evaporation Rate	:	No data available
Melting Point	:	2650 deg. F
Freezing Point	:	No data available
Boiling Point	:	No data available
Flash Point	:	No data available
Auto-ignition Temperature	:	No data available
Decomposition Temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor Pressure	:	No data available
Relative Vapor Density at 20°C	:	No data available
Relative Density	:	No data available
Solubility	:	Not soluble in water
Partition Coefficient:N-Octanol/Water	:	No data available
Viscosity	:	No data available

**9.2. Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Stable. Keep dry until use. These products may react with water, resulting in a slight release of heat, depending on the amount of lime (Calcium oxide) present. Avoid contact with incompatible materials.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** None.
- 10.5. Incompatible Materials:** None.
- 10.6. Hazardous Decomposition Products:** None.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Not classified

# Green Diamond Performance Foundry

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>Magnesium oxide (MgO) (1309-48-4)</b>	
LD50 Oral Rat	3870 mg/kg
<b>Iron oxide (FeO) (1345-25-1)</b>	
LD50 Oral Rat	> 15 g/kg
<b>Aluminum oxide (Al2O3) (1344-28-1)</b>	
LD50 Oral Rat	> 15900 mg/kg
LC50 Inhalation Rat	> 2.3 mg/l/4h
<b>Chromium oxide (Cr2O3) (1308-38-9)</b>	
LD50 Oral Rat	> 5000 mg/kg
ATE (Oral)	500.00 mg/kg body weight
ATE (Dust/Mist)	1.50 mg/l/4h
<b>Calcium oxide (1305-78-8)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2500 mg/kg

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

<b>Chromium oxide (Cr2O3) (1308-38-9)</b>	
IARC group	3
<b>Silica, amorphous, precipitated and gel (112926-00-8)</b>	
IARC group	3

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Repeated or prolonged contact with skin may cause dermatitis.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : Not classified.

<b>Aluminum oxide (Al2O3) (1344-28-1)</b>	
LC50 Fish 1	> 100 mg/l
EC50 - Crustacea [1]	> 100 mg/l
ErC50 (Algae)	> 100 mg/l
NOEC (Acute)	> 50 mg/l
<b>Chromium oxide (Cr2O3) (1308-38-9)</b>	
LC50 Fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Danio rerio [static])
NOEC Chronic Fish	1000 mg/l (Species: Brachydanio rerio - Duration: 30 d)
<b>Calcium oxide (1305-78-8)</b>	
LC50 Fish 1	50.6 mg/l
<b>Silica, amorphous, precipitated and gel (112926-00-8)</b>	
LC50 Fish 1	10000 mg/l

### 12.2. Persistence and Degradability

<b>Green Diamond Performance Aggregate</b>	
<b>Persistence and Degradability</b>	Not established.

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## 12.3. Bioaccumulative Potential

Green Diamond Performance Aggregate	
Bioaccumulative Potential	Not established.
Calcium oxide (1305-78-8)	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil No additional information available

## 12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

Green Diamond Performance Aggregate	
SARA Section 311/312 Hazard Classes	Health hazard - Respiratory or skin sensitization
Magnesium oxide (MgO) (1309-48-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Iron oxide (FeO) (1345-25-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) (1344-28-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 % (fibrous forms)
Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> ) (1308-38-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Calcium oxide (1305-78-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

# Green Diamond Performance Foundry

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## 15.2. US State Regulations

<b>Magnesium oxide (MgO) (1309-48-4)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
<b>Chromium oxide (Cr<sub>2</sub>O<sub>3</sub>) (1308-38-9)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List
<b>Calcium oxide (1305-78-8)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List
<b>Silica, amorphous, precipitated and gel (112926-00-8)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

<b>Date of Preparation or Latest Revision</b>	: 01/18/2022
<b>Other Information</b>	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

### GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*