

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixtures  
 Product name : Coal fly ash with additive MasterCem 6500/6510

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : For disposal, soil amendment, concrete additive or other alternative use

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Shaw Resources  
 Nova Scotia Sand & Gravel Operation  
 901 Sandy Desert Road  
 Shubenacadie, NS, B0N 2H0  
 T: 902-758-4730 (7:00am to 5:00pm AST, Mon-Fri)  
 Shipping Office Fax Number: 902-758-1365

##### Distributor

#### 1.4. Emergency telephone number

Emergency number : 902-758-4730 (7:00am to 5:00pm AST, Mon-Fri)

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### GHS classification

Irritant.

#### 2.2. Label elements

##### GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) : None  
 Hazard statements (GHS) : Irritant: causes eye, skin and inhalation irritation.  
 Precautionary statements (GHS) : Use proper engineering controls, work practices and personal protective equipment. Read SDS for details.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%
Aluminium oxides	(CAS-No.) 7429-90-5	1-5
Iron oxides	(CAS-No.) 1309-37-1	1-12
Crystalline Silica (Quartz)	(CAS No) 14808-60-7	<0.1
Vanadium oxides	(CAS-No.) 1314-62-1	<0.2
Nickel oxides	(CAS No.) 7440-02-0	<0.1
Arsenic oxides	(CAS No.) 7440-38-2	<0.1

Comments : The concentrations listed represent actual ranges that result from batch variability.

# Pet Coke/Coal Fly Ash

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air. Get medical advice/attention if irritation persists.
- First-aid measures after skin contact : If skin irritation occurs, wash skin with soap and water. Obtain medical attention if irritation persists.
- First-aid measures after eye contact : Flush with water to dislodge particles. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Not an expected route of entry. Although ingestion of small quantities of ash is not known to be harmful, large quantities can cause distress to digestive system. Get medical advice/attention if needed.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Symptoms of exposure may include cough, sneezing, and respiratory tract irritation. Vanadium has been known to irritate mucous membranes and create respiratory problems if overexposure occurs. This should not occur with normal exposure to this product.
- Symptoms/effects after skin contact : May cause skin irritation in some cases or to those with sensitive skin. Nickel can cause skin allergies in some people after chronic exposure.
- Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production.
- Symptoms/effects after ingestion : Not an expected route of entry. May cause gastrointestinal irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of overexposure, seek medical advice (show the SDS where possible).

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : N/ap.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.
- Reactivity : Not reactive.

#### 5.3. Advice for firefighters

- Firefighting instructions : Treat surrounding fire.
- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the exposure area and deny entry to unnecessary and unprotected personnel.

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Dispose of waste according to municipal or local requirements.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Dust and particulate matter should be vacuumed with a filtered vacuum or wet swept where vacuuming is not feasible.. Place in appropriate disposal container. Provide good ventilation.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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## Safety Data Sheet

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Minimize dust generation. Avoid contact with skin, eyes and clothing. Good housekeeping is important to prevent accumulation of dust. Handle and open container with care. When using do not eat, drink or smoke and practice good personal hygiene after use (handwashing).
- Hygiene measures : Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : No special requirements. Minimize dust, use good housekeeping
- Incompatible materials : Not applicable.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Aluminium oxide		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	Not available
Iron Oxide		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Silica (Quartz)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 µg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable dust)
Vanadium oxide		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	Ceiling 0.05 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	Ceiling 0.05 mg/m <sup>3</sup>
Nickel oxide		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.015 mg/m <sup>3</sup>
Arsenic oxide		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.002 mg/m <sup>3</sup> Ceiling
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.002 mg/m <sup>3</sup>

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Wear suitable gloves.
- Eye protection : Safety glasses or goggles are recommended when using product.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Other information : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

# Pet Coke/Coal Fly Ash

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Fine grained solid
Colour	: Grey powder
Odour	: None
Odour threshold	: No data available
pH	: Neutral
Melting point	: No data available
Freezing point	: No data available
Boiling point	: >1100 C
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.6 - 2.6
Solubility	: Insoluble in water
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Unreactive.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Contact with powerful oxidizing agents may cause reaction.

#### 10.4. Conditions to avoid

Heat. Incompatible materials.

#### 10.5. Incompatible materials

Strong oxidizers.

#### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

### 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.

#### Silica (14808-60-7) Present at <1%

LD50 oral rat	500 mg/kg
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#### Aluminium oxide

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<b>Silica (14808-60-7) Present at &lt;1%</b>	
LD50 oral rat	6207 mg/kg
<b>Iron oxide</b>	
LD50 oral rat	2486 mg/kg
<b>Vanadium oxides</b>	
LD50 oral rat	67 mg/kg
<b>Nickel oxides</b>	
LD50 oral rat	55 mg/kg
<b>Arsenic oxides</b>	
LD50 oral rat	13 mg/kg

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified.
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Mixture not classified.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: May cause damage to lungs through prolonged or repeated exposure above exposure limit.
Aspiration hazard	: Not classified.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. Symptoms of exposure may include cough, sneezing, and irritation.
Symptoms/effects after skin contact	: May cause skin irritation. Nickel may cause skin sensitization.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production.
Symptoms/effects after ingestion	: Not an expected route of entry. May be harmful if swallowed. May cause gastrointestinal irritation.
Other information	: Likely routes of exposure: inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
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### 12.2. Persistence and degradability

<b>Silica Sand</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Silica Sand</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming	: No known effects from this product.
Other information	: No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
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## SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

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## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

In accordance with DOT/TDG  
Not regulated

### SECTION 15: Regulatory information

#### 15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

#### 15.2. International regulations

No additional information available

#### 15.3. US State regulations

California Proposition 65 - This product contains small or trace amounts of Crystalline Silica, Quartz and nickel and arsenic, known to the State of California to cause cancer.

### SECTION 16: Other information

Revision date : 12/19/2018  
Other information : None.  
Prepared by : Mersereau Occupational Hygiene Consulting.

SDS HazCom 2012 - WHMIS 2015 (NexReg)

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