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## **SECTION 1 – PRODUCT & COMPANY IDENTIFICATION**

<b>Product Names:</b>	Genesee Coal Ash
<b>Product Identifiers:</b>	Coal Fly Ash, Fly Ash, FA, Classified Ash, Coal Bottom Ash, Bottom Ash, BA and Coal Ash
<b>Manufacturer:</b>	Genesee Generating Station, Capital Power Corporation, Box 20, Site 2, RR #1, Warburg, Alberta, Canada, T0C 2T0.
<b>Information Telephone:</b>	(780) 969-8542 (24 h/d)
<b>Emergency Telephone:</b>	(780) 969-8542 (24 h/d)
<b>Product Uses:</b>	Fly Ash & Bottom Ash are used as ingredients of cement and concrete products, as well as filler in asphalt and may be present in other products widely used in construction. It is also often used for soil stabilization.
<b>Notes:</b>	Fly Ash & Bottom Ash are by-products of the coal combustion process and the content is dependent on the coal burned, for this reason composition of hazardous constituents may vary.

## **SECTION 2 – HAZARDS IDENTIFICATION**

<b>Emergency Overview:</b>	Genesee Coal Ash is a dark grey odourless powder which contains solidified masses and is neither combustible nor explosive. Periodic short-term exposure to the dry product poses little hazard.
<b>Skin Contact:</b>	Coal Ash may cause dry skin and irritation.
<b>Eye Contact:</b>	Irritation and inflammation of the eye may be caused by on contact or symptoms may develop sometime after contact.
<b>Chronic Inhalation:</b>	Risk of illness increases with the higher level and duration of exposure: Silicosis: Chronic inhalation of crystalline silica contain in Coal Ash can cause silicosis, a fatal lung disease. Tuberculosis: Chronic inhalation may result in a higher risk of contracting tuberculosis associated with silicosis. Renal Disease: Exposure to crystalline silica has been linked to kidney disease by some studies.
<b>Acute Inhalation:</b>	Breathing air containing large amounts of Coal Ash dust may cause nose, throat or lung irritation. In extreme instances, choking may result.
<b>Carcinogenicity:</b>	Coal Ash contains crystalline silica which is a suspected human carcinogen.
<b>Autoimmune Disease:</b>	Some studies show a link between chronic exposure to crystalline silica and autoimmune disorders. It is inconclusive if a link exists as a result of chronic exposure or as a result of silicosis.
<b>Ingestion:</b>	Distress of the digestive track may result from the ingestion on Coal Ash.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

	Percent by Weight	CAS Number	8 h Exposure Limit (mg/m <sup>3</sup> )	LD <sub>50</sub>	LC <sub>50</sub>
Ash from Coal Combustion	<100.0	68121-74-8	NA	NA	NA
Amorphous Silica (Fused)	60.0	61790-53-2	0.10	NA	NA
Crystalline Silica (Quartz)	4.2	14808-60-7	0.10	NA	NA
Crystalline Silica (Cristobolite)	2.5	14464-46-1	0.05	NA	NA
Coal	1.0		2.00	NA	NA
Not Otherwise Regulated	32.3	NA	NA	NA	NA

### SECTION 4 – FIRST AID MEASURES

- Eye:** Flush eyes with plenty of water for 15 minutes. If irritation persists seek medical attention.
- Skin:** Wash contacted area with soap and water as soon after exposure as possible.
- Ingestion:** Do not induce vomiting; if conscious drink plenty of water. Seek medical attention immediately.
- Inhalation:** Move to fresh air and clear nasal passages. Do not inhale.

### SECTION 5 – FIRE FIGHTING MEASURES

Coal Ash is a non-combustible that poses no fire related hazard. Firefighting should wear SCBA to avoid inhalation of friable dust.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

Don Personal Protective Equipment as specified in Section 8 of this MSDS. Spray spilt Coal Ash with water mist and scope into containers with securable lids. If vacuum is used, do not spray with water mist and ensure vacuum is fitted with HEPA designated filters.

### SECTION 7 – HANDLING & STORAGE

- Handling:** Coal Ash, when dry is extremely friable; avoid causing the Coal Ash to become airborne. Use dust suppression when handling indoors. Use dust suppression techniques when transported pneumatically. When wetted Coal ash sets as it dries.
- Storage:** To avoid setting, store dry in closed containers.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls:</b>	Store and handle in well-ventilated areas only. Use local exhaust and dust suppression techniques to maintain dust levels to below jurisdictional exposure limits.
<b>Respiratory PPE:</b>	When handling or exposed to friable dust above jurisdictional exposure limits, wear a properly fitted NIOSH Approved respirator the use of which meets CSA Standard Z94.4-02 – Selection, Use and Care of Respirators. Observe all relevant site respirator policies.
<b>Eye PPE:</b>	When handling use safety glasses with side and brow protection or safety goggles meeting the requirements of CSA Standard Z94-.3-99 – Industrial Eye and Face Protectors.
<b>Skin PPE:</b>	Do not use barrier creams to prevent skin contact. Wear gloves, boots and protective clothing to prevent skin contact. Remove clothing saturated with wet Coal Ash immediately and wash exposed areas.

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

<b>Physical State</b>	Powdered Solid	<b>Vapour Pressure</b>	NA
<b>Appearance</b>	Light to Dark Grey	<b>Vapour Density</b>	NA
<b>Odour</b>	None	<b>pH in Water</b>	Varies between 7 to 13
<b>Evaporation Rate</b>	NA	<b>Freezing Point</b>	Solid - None
<b>Boiling Point</b>	NA	<b>Viscosity</b>	Solid - None
<b>Specific Gravity</b>	Approximately 2.5	<b>Solubility in Water</b>	< 5%

## SECTION 10 – STABILITY & REACTIVITY

<b>Stability: Stable:</b>	Store dry.
<b>Incompatible:</b>	Avoid contact with acids.
<b>Hazardous-By-Products:</b>	Reacts with hydrofluoric acid to form corrosive silicon tetra fluoride gas.
<b>Hazardous-Decomposition:</b>	None
<b>Hazardous-Polymerization:</b>	None

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	Crystalline silica (quartz silica) is a suspected carcinogen.
<b>Reproductive Effects:</b>	None reported
<b>Mutagenicity:</b>	None reported.
<b>Radioactivity:</b>	Trace radioactive elements are present in Coal Ash but are generally considered to result in exposure equal to or less than background radiation levels in many areas.

## SECTION 12 – ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	Coal Ash can alter but has not been demonstrated to have a toxic effect on aquatic ecosystems. Increased Turbidity and decreased phosphorus may result with a corresponding decrease in habitat productivity.
<b>Bioaccumulation:</b>	Trace elements present in Coal Ash have been shown to bio-accumulate in fauna of lakes exposed to Coal Ash

## SECTION 13 – DISPOSAL CONSIDERATION

Consult applicable Local, Provincial, State or Federal regulations and dispose of waste in closed containers in compliance with those regulations.

## SECTION 14 – TRANSPORT INFORMATION

Coal Ash is not considered as a Hazardous Material under Canadian TDG or US DOT regulations.

## SECTION 15 – REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Canadian Controlled Product regulations (CPR).

## SECTION 16 – OTHER INFORMATION

<b>Legal Disclaimer:</b>	Capital Power Corporation believes the information contained in this MSDS is accurate; however no guarantee to accuracy is made. Information contained herein is not meant to convey legal advice pertaining to compliance with Federal, Provincial, State or Local laws and regulations. No liability in connection with the use of the information contained herein is assumed by Capital Power Corporation.
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