

## CS Carbon Safety Data Sheet

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### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Identifier:** CS Carbon  
**Product Description:** Calcined Petroleum Coke Breeze  
**Recommended Use:** Grounding and Cathodic Protection Systems

#### COMPANY IDENTIFICATION

**Supplier** Corrosion Service Company Limited  
9-280 Hillmount Rd.  
Markham, Ontario, Canada L6C 3A1  
+1 (416) 630-2600  
www.corrosionservice.com

### SECTION 2 HAZARDS IDENTIFICATION

#### 2.1 CLASSIFICATION OF THE MIXTURE

Not classified for physical or health hazards under GHS.

Labelling: Symbols: None.

Signal Word: None.

Hazard Statements: The product does not meet the criteria for classification.

Precautionary Statements:

Observe good industrial hygiene practices. Wash hands after handling.

Store away from incompatible materials.

Dispose of waste and residues in accordance with local authority requirements.

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 MIXTURE

Chemical Name	CAS No.	Wt. %
Calcined Petroleum Coke	64743-05-1	> 99

### SECTION 4 FIRST AID MEASURES

#### 4.1 EYE

Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

#### 4.2 SKIN

Normal skin contact is not known to cause a significant health effect. Particles should be periodically washed off of skin with soap and water.

#### 4.3 INHALATION

Move to fresh air. Call a physician if symptoms develop or persist.

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### 4.4 INGESTION

Rinse mouth. Get medical attention if symptoms occur.

### 4.5 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Dusts may irritate the respiratory tract, skin and eyes.

### 4.6 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

### 4.7 GENERAL INFORMATION

Ensure that medical personnel are aware of the material(s) involved.

## SECTION 5 FIRE FIGHTING

### 5.1 SUITABLE EXTINGUISHING MEDIA

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

### 5.2 UNSUITABLE EXTINGUISHING MEDIA

Do not use water jet as an extinguisher, as this will spread the fire.

### 5.3 SPECIAL HAZARDS

High concentrations of dust may form combustible dust concentrations in air. During fire, gases hazardous to health may be formed such as: Carbon oxides (CO<sub>x</sub>). Sulfur oxides (SO<sub>x</sub>).

Most reported coke fires have occurred when produced calcined coke is inadequately cooled and stored in a manner that allows the movement of air through the coke bed. May burn if exposed to temperatures greater than 1290 °F (700 °C). Should a fire occur, its location and extent should be determined as quickly as possible. The best procedure is to dig out and remove the coke in the heated zone. The hot coke should be drenched with water as it is exposed. Caution should be exercised when using water or foam as frothing may occur, especially if directed onto containers of hot or burning material.

### 5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### 5.5 FIRE FIGHTING EQUIPMENT / INSTRUCTIONS

Use standard firefighting procedures and consider the hazards of other involved materials.

### 5.6 GENERAL FIRE HAZARDS

No unusual fire or explosion hazards noted.

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### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH / MSHA approved respirator if there is a risk of exposure to dust / fume at levels exceeding the exposure limits. Avoid breathing dust / fume / vapors. For personal protection, see section 8 of the SDS. Local authorities should be advised if significant spillages cannot be contained. Avoid contact with eyes.

#### 6.2 ENVIRONMENTAL PRECAUTIONS

Avoid discharge into drains, water courses or onto the ground.

#### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Material is not toxic and can be picked up by sweeping, shoveling, or vacuuming.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

### SECTION 7 HANDLING AND STORAGE

#### 7.1 PRECAUTIONS FOR SAFE HANDLING

Minimize dust generation and accumulation. Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. Do not enter storage areas and confined spaces unless adequately ventilated. Avoid breathing dust. Wash thoroughly after handling. Practice good housekeeping.

#### 7.2 CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITIES

Store away from incompatible materials (see Section 10 of the SDS). Must not be loaded on a cargo vessel when temperatures exceed 107 °C or 225 °F.

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 CONTROL PARAMETERS

Occupational Exposure Limits

U.S. - OSHA Components	Type	Value	Form
Calcined Petroleum Coke (CAS 64743-05-1)	PEL	5 mg/m <sup>3</sup>	Respirable fraction
		15 mg/m <sup>3</sup>	Total dust
ACGIH Components	Type	Value	Form
Calcined Petroleum Coke (CAS 64743-05-1)	TWA	3 mg/m <sup>3</sup>	Respirable fraction
		10 mg/m <sup>3</sup>	Total dust

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### 8.2 BIOLOGICAL LIMIT VALUES

No biological exposure limits noted for the ingredient(s).

### 8.3 EXPOSURE GUIDELINES

Maintain airborne levels below recommended exposure limits.

### 8.4 APPROPRIATE ENGINEERING CONTROLS

Dust should be controlled at point of operation.

### 8.5 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Eye / Face Protection Wear safety glasses with side shields (or goggles)

Skin Protection

Hand protection Not available

Other Wear suitable protective clothing

Respiratory Protection In order to maintain exposures below the acceptable limits from the Hazard Identification Section, select appropriate NIOSH-approved protection where necessary to maintain exposures below the acceptable limits in the Health Hazard Section. Proper respiratory selection should be determined by adequately trained personnel and based on the contaminant(s), the degree of potential exposure and published respirator protection factors.

Thermal Hazards Wear appropriate thermal protective clothing, when necessary

### 8.6 GENERAL HYGIENE CONSIDERATIONS

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Excessive concentrations of calcined petroleum coke may reduce visibility, cause unpleasant deposits in the eye, ears, and nasal passages, or irritate the skin or mucous membranes by mechanical means. However, normal workplace exposure has not been determined to cause a significant health effect.

Calcined petroleum coke, as with many petroleum products, may cause minor skin, eye, or lung irritation, but good hygienic practices can minimize these effects.

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### SECTION 9 PHYSICAL / CHEMICAL PROPERTIES

#### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance - Physical State	Solid
Appearance - Form	Solid
Appearance - Colour	Dark gray to black
Odor	Odorless
Odor Threshold	Not available
pH	Not available
Melting Point / Freezing Point	Not available
Initial Boiling Point and Boiling Range	Not available
Flash Point	None
Evaporation Rate	Not available
Flammability	Not available
Upper / Lower Flammability or Explosive Limits	Not available
Flammability Limit - Lower (%)	Not available
Flammability Limit - Upper (%)	Not available
Explosive Limit - Lower (%)	Not available
Explosive Limit - Upper (%)	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Relative Density	50-55 lbs/ft <sup>3</sup>
Solubility	Not soluble in water
Partition Coefficient (n-octanol / water)	Not available
Auto-Ignition Temperature	> 1292 °F (> 700 °C)
Decomposition Temperature	> 2400.8 °F (> 1316 °C)
Viscosity	Not available
Other Information	
Bulk Density	> 1.00 g/cm <sup>3</sup>
Density	> 1.00 g/cm <sup>3</sup>
Explosive Properties	Not explosive
Oxidizing Properties	Not oxidizing

### SECTION 10 STABILITY AND REACTIVITY

#### 10.1 REACTIVITY

The product is stable and non-reactive under normal conditions of use, storage and transport.

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### 10.2 CHEMICAL STABILITY

Material is stable under normal conditions.

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

### 10.4 CONDITIONS TO AVOID

Keep material from extreme heat and open flame. Avoid generation of dust. Avoid contact with incompatible materials. Avoid temperatures exceeding the decomposition temperature. May burn at temperature exceeding 1290 degrees F or 700 degrees C.

### 10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No hazardous decomposition products are known.

## SECTION 11 TOXICOLOGICAL INFORMATION

### 11.1 LIKELY ROUTES OF EXPOSURE

Inhalation	Dust may irritate respiratory system.
Skin Contact	Dust or powder may irritate the skin.
Eye Contact	Dust may irritate the eyes.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

### 11.2 SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

Dusts may irritate the respiratory tract, skin and eyes.

### 11.3 TOXICOLOGICAL EFFECTS

Acute Toxicity	Not known.
Skin Corrosion / Irritation	Prolonged skin contact may cause temporary irritation.
Serious Eye Damage / Eye Irritation	Direct contact with eyes may cause temporary irritation.

### 11.4 RESPIRATORY OR SKIN SENSITIZATION

Respiratory Sensitization	Not a respiratory sensitizer.
Skin Sensitization	This product is not expected to cause skin sensitization.

### 11.5 GERM CELL MUTAGENICITY

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

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### 11.6 CARCINOGENICITY

IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed
NTP Report on Carcinogens	Not listed
OSHA Specifically Regulated Substances (29CFR1910.1001-1053)	Not regulated

### 11.7 REPRODUCTIVE TOXICITY

This product is not expected to cause reproductive or developmental effects.

11.8 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE Not classified.

11.9 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE Not classified.

11.10 ASPIRATOR HAZARD Not an aspiration hazard.

## SECTION 12 ECOLOGICAL INFORMATION

### 12.1 ECOTOXICITY

Freshwater. Acute exposure to petroleum coke did not result in adverse effects in fathead minnow or daphnia at loading rate 1000 mg/L. Slight growth inhibition was found in freshwater algae at testing loading rate (MOELR < 1000 mg/L).

Terrestrial: Petroleum coke was not found to have adverse effects in earthworms or terrestrial plants at 1000 mg/L.

### 12.2 PERSISTENCE AND DEGRADABILITY

Petroleum coke exhibits high persistence (P3) in soil as degradation is not expected to be a significant fate in organisms or the environment.

### 12.3 BIOACCUMULATION POTENTIAL

Low bioaccumulation potential as negligible water solubility restricts route of exposure in the aquatic environment (B1).

### 12.4 MOBILITY IN SOIL

Mobility is insignificant due to negligible water solubility and vapour pressure. May incorporate within soil for extended periods of time.

### 12.5 OTHER ADVERSE EFFECTS

None. Attempts to quantify unalkylated PAH, sulfur, and metal leachate values remained below detection limits under freshwater test conditions.

## SECTION 13 DISPOSAL CONSIDERATIONS

### 13.1 WASTE DISPOSAL

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

### 13.2 LOCAL DISPOSAL REGULATIONS

Dispose in accordance with all applicable regulations.

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### 13.3 HAZARDOUS WASTE CODE

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

### 13.4 WASTE FROM RESIDUES / UNUSED PRODUCTS

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: disposal instructions).

### 13.5 CONTAMINATED PACKAGING

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SECTION 14 TRANSPORT INFORMATION

### 14.1 DOT

Not regulated as dangerous goods.

### 14.2 IATA

Not regulated as dangerous goods.

### 14.3 IMDG

Not regulated as dangerous goods.

### 14.4 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not applicable.

## SECTION 15 REGULATORY INFORMATION

### 15.1 US FEDERAL REGULATIONS

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

15.1.1	TSCA Section 12(b) Export Notification (70 CFR 707, Subpt. D)	Not regulated
15.1.2	CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed
15.1.3	SARA 304 Emergency Release Notification	Not regulated
15.1.4	OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	Not regulated

### 15.2 SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)

15.2.1	SARA 302 Extremely hazardous substance	Not listed
15.2.2	SARA 311/312 Hazardous chemical	Yes
15.2.3	SARA 313 (TRI reporting)	Not regulated



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### 15.3 OTHER US FEDERAL REGULATIONS

15.3.1 Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List  
Not regulated

15.3.2 Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)  
Not regulated.

15.3.3 Safe Drinking Water Act (SDWA)  
Not regulated

### 15.4 US STATE REGULATIONS

15.4.1 California Safe Drinking Water Enforcement Act of 2016 (Proposition 65)  
This material is not known to contain any chemical currently listed as carcinogens or reproductive toxins.

### 15.5 INTERNATIONAL INVENTORIES

Country 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 Chemical List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

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### SECTION 16 OTHER INFORMATION

16.1 REVISION DATE September, 19, 2023.

16.2 FURTHER INFORMATION

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

16.3 HMIS HAZARD RATINGS Health: 1

Flammability: 1

Physical Hazard: 0

16.4 NFPA RATINGS



16.5 ADDITIONAL INFORMATION

This safety data sheet is believed to provide a useful summary of the hazards of Coke Breeze as it is commonly used, but cannot anticipate and provide all of the information that might be needed in every situation. It relates specifically to the product designated and may not be valid for the product when used with any other materials or products or in a particular process.

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