Safety Data Sheet
according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: March 22, 2023

1 – Identification

Product identifier

· **Trade name: Petroleum coke, calcined**
· **CAS Number:** 64743-05-1
· **REACH Registration #:** Exempt

· **Recommended use:** Inorganic source of carbon, filler, thermal additive, re-carburizer, casting powders, drilling fluids, plastic additive, rubber additive, tint/pigment, chemically resistant additive, general inert filler-additive.
· **Restrictions on use:** For industrial use only, not for food, drug, or cosmetic applications.

·**Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
Asbury Carbons, Inc.
PO Box 144, 405 Old Main Street
Asbury, NJ 08802 USA
+1 908-537-2155
· **Emergency telephone number:**
ChemTel 800-255-3924 (North America)
+1 (813) 248-0585 (International)

2 - Hazards Identification

Classification of the substance or mixture
Combustible Dust - May form combustible dust concentrations in air

Label Elements
GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:** none required

· **Signal word:** Warning

· **Hazard statements:** May form combustible dust concentrations in air.

· **Precautionary statements:**
Prevent dust accumulations to minimize explosion hazard.
Keep away from all ignition sources including heat, sparks and flame.

· **Additional information:**
Read the label and safety data sheet before use.
.
Other hazards: May form explosible dust-air mixture if dispersed.

3 – Composition/Information on Ingredients

Chemical characterization: Substances

Description	CAS No.	Hazard Codes	Weight %
Carbon variety, calcined petroleum coke	64743-05-1	none	100%

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4 – First Aid Measures
Description of first aid measures

· **After inhalation:**
Remove patient to particulate-free environment. Wear approved dust mask to avoid breathing dust. Seek medical attention if irritation persists.

· **After skin contact:**
Wash with mild soap and warm water. Calcined petroleum coke is non-staining to skin and is not a chemical irritant.

· **After eye contact:**
Rinse with tepid water until eyes are clear of particulates. Seek medical attention if irritation persists.

· **After swallowing:**
Get immediate medical attention. Do not induce vomiting unless directed by medical personnel. Calcined petroleum coke is not known to be toxic by ingestion. However, ingestion may cause digestive system blockage.

·**Most important symptoms and effects, both acute and delayed:** No relevant information available.

·**Indication of any immediate medical attention and special treatment needed:**
If patient exhibits shortness of breath, choking, powder inundated eyes or mouth; immediate medical attention may be required.

5 – Fire Fighting Measures
Extinguishing media

· **Suitable extinguishing agents:** Dry chemical extinguisher, water, sand, limestone powder

· **For safety reasons unsuitable extinguishing agents:** No relevant information available.

· **Special hazards arising from the substance or mixture**
This substance will burn but is not easily ignited. Dust Class ST1, MIE greater than 10J. At temperatures above 1500 C, calcined petroleum coke reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate calcined petroleum coke.

Advice for firefighters

· **Protective equipment:** Use self-contained air pack, gloves, safety goggles

6 – Accidental Release Measures
Personal precautions, protective equipment and emergency procedures
Wear approved dust mask, safety goggles, and conventional work gloves.

· **Environmental precautions**
Calcined petroleum coke is inert and insoluble and will not pose any soluble ion hazards to the environment. However, good housekeeping practices should be followed and spilled material should be cleaned up, and disposed of in an appropriate manner.

· **Methods and material for containment and cleaning up**
No special containment needed other than conventional vacuuming and waste containment. Avoid creating dust. Calcined petroleum coke is electrically conductive and any cleanup methods should avoid contacting calcined petroleum coke with electrical circuitry.

· **Reference to other sections** Not needed

7 – Handling and Storage
· **Precautions for safe handling:**
Use conventional methods, but avoid dusting conditions. Keep powder from contacting eyes. Calcined petroleum coke is a conductor of electricity. Avoid contact between calcined petroleum coke and electrical circuitry.

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Information about protection against explosions and fires:
Very finely divided calcined petroleum coke powder poses a very slight risk of dust explosion hazard: Dust class ST1, MIE greater that 10 J (very low hazard of spark ignition)

Conditions for safe storage, including any incompatibilities
Store all carbonaceous materials in a dry location. Calcined petroleum coke is incompatible with oxidizing agents.

8 – Exposure Controls/ Personal Protection
Control parameters
· **Components with limit values that require monitoring at the workplace:**

Component	CAS No	%	ACGIH TWA	Control Reference
Calcined petroleum coke	64743-05-1	100	3.0 mg/m^3 respirable particles 10.0 mg/m^3 inhalable dust	2014 ACGIH TLV Handbook: Low toxicity / insoluble or poorly soluble - not otherwise specified

Exposure controls
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.
· **Engineering controls:**
Use adequate dust collection to maintain dust levels below the control or recommended values.
· **Breathing equipment:** Approved dust mask, type N95 recommended.
· **Skin Protection:** Conventional work gloves and clothing.
· **Eye protection:** Conventional safety glasses or goggles.
· **Environmental exposure controls:**
Calcined petroleum coke is inert and insoluble. To the best of our knowledge, calcined petroleum coke will not present any environmental hazards. No special environmental exposure controls, other than standard practices for dust and spill control, are required

9 – Physical and Chemical Properties
Information on basic physical and chemical properties
Appearance:
Form: Solid, granulate, powder
Color: Grey to black
Odor: Odorless

pH-value: Not applicable.
Melting point/Melting range: Not determined
Boiling point/Boiling range: Sublimates at 3652 deg C

Flash point: Not determined
Flammability (solid, gaseous): Oxidizes above 450C
Auto-ignition temperature: Above 500 deg C
Decomposition temperature: Oxidizes above 450C
Danger of explosion:
When exposed to extremely high energy ignition sources very finely divided calcined petroleum coke powder can form explosive mixtures with air. Avoid contact between calcined petroleum coke dust clouds and high energy ignition sources. Classified as combustible but not flammable.
Combustible dust class ST1: K_{ST} <200 bar m/s Minimum Ignition Energy (MIE) greater than 10 joules.
Explosion limits
Lower: Not determined
Upper: Not determined
Oxidizing properties: Non-oxidizing

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Vapor pressure: Not determined
Relative density: 2.0
Vapor density: Not applicable
Evaporation rate: Not applicable.

Solubility in / Miscibility with Water: Insoluble
Partition coefficient (n-octanol/water): Not determined

10 – Stability and Reactivity

Reactivity: Inert under ambient conditions.
Chemical stability:
Stable under normal temperatures and pressures. Will not polymerize or self-react spontaneously.
Thermal decomposition / conditions to be avoided:
Avoid contact with oxidizing agents. Will begin to oxidize at temperatures above 450 deg C in oxygen atmopshere.
Possibility of hazardous reactions:
When exposed to extremely high energy ignition sources very finely divided calcined petroleum coke powder can form explosive mixtures with air. (Minimum Ignition Energy (MIE) greater than 10 joules.) Avoid contact between calcined petroleum coke dust clouds and high energy ignition sources. Classified as combustible but not flammable.
Incompatible materials: Oxidizers
Hazardous decomposition products: Carbon monoxide, carbon dioxide, sulfur oxides (SOx)

11 – Toxicological Information

Information on toxicological effects
Acute toxicity: Based on available data, the classification criteria are not met.
LD/LC50 values that are relevant for classification: None.
Primary irritant effect:
· **On the skin:** Based on available data, the classification criteria are not met.
· **On the eye:** Based on available data, the classification criteria are not met.
· **Sensitization:** Based on available data, the classification criteria are not met.

IARC (International Agency for Research on Cancer): None of the ingredients are listed.
NTP (National Toxicology Program): None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed.

Probable route(s) of exposure:
Ingestion, Inhalation, Eye contact, Skin contact

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

12 – Ecological Information

Toxicity:
Calcined petroleum coke is inert and insoluble. To the best of our knowledge, calcined petroleum coke does not present any significant environmental hazards. Carbon is the principal constituent of calcined petroleum coke, and is not expected to pose a toxic hazard to aquatic organisms.
Aquatic toxicity:

Data not available. Calcined petroleum coke is not water soluble and does not present a soluble-ion hazard. Fine Calcined petroleum coke particles suspended in natural water bodies may be harmful to organisms sensitive to suspended solids.

Persistence and degradability:
Calcined petroleum coke is a reduced form of carbon and will not degrade further under normal conditions. This form of carbon is stable, unreactive in water under ambient conditions, and is insoluble.
Bioaccumulative potential: There is no evidence indicating that Calcined petroleum coke is bioaccumulative.
Mobility in soil: Not expected - insoluble, inorganic substance.
Other adverse effects: No relevant information available.

13 – Disposal Considerations

Waste treatment methods
Recommendation:
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Do not dispose in sewers or waterways.

Uncleaned packagings
Recommendation: Disposal must be made according to official regulations.

14 – Transport Information

UN-Number:	DOT, ADR/RID/ADN, IMDG, IATA: Not regulated.
UN proper shipping name:	DOT, ADR/RID/ADN, IMDG, IATA: Not regulated.
Transport hazard class(es):	DOT, ADR/RID/ADN, IMDG, IATA: Not regulated.
Packing group:	DOT, ADR/RID/ADN, IMDG, IATA: Not regulated.

Environmental hazards: None known
Marine pollutant: No
Special precautions for user: Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 – Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

United States (USA)
SARA Section 302 (extremely hazardous substances): None of the ingredients are listed.
SARA Section 313 (Specific toxic chemical listings): None of the ingredients are listed.
TSCA (Toxic Substances Control Act): All components have the value ACTIVE or EXEMPT.

Proposition 65 (California)
Chemicals known to cause cancer: None of the ingredients are listed.
Chemicals known to cause developmental toxicity for females: None of the ingredients are listed.
Chemicals known to cause developmental toxicity for males: None of the ingredients are listed.
Chemicals known to cause developmental toxicity: None of the ingredients are listed.

EPA (Environmental Protection Agency): None of the ingredients are listed.
IARC (International Agency for Research on Cancer): None of the ingredients are listed.
Canadian Domestic Substances List (DSL): All ingredients are listed or exempt.

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16 – Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
OSHA: Occupational Safety & Health Administration
Carc. 1A: Carcinogenicity – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services
(ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

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For other local and industry-specific regulatory declarations, please visit
https://asbury.com/resources/asbury-carbons-regulatory-statements/