

Asbury Graphite Mills, Inc. **Cummings – Moore Graphite Co. Anthracite Industries** Southwestern Graphite **Asbury Graphite of California Asbury – Wilkinson** Asbury Graphite & Carbons NL B.V. Graphitos Mexicanos de Asbury, S.A. de C.V.

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Safety Data Sheet

Section 1 – Identification of the Substance / Preparation, and of the Company

1.1: Product Identifier

Trade Name: Green Petroleum coke Grade:

REACH Registration Number: Exempt

EC Number: 265-080-3 Substance Name: Petroleum coke

CAS#64741-79-3

1.2: Indentified uses of the substance or mixtures

1.2.1 Uses: Fuel, 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, friction modification.

1.2.2 Uses Advised Against: For industrial use only, not for food, drug, or cosmetic applications.

1.3: Supplier Information

Company/Manufacturer: Asbury Carbons, Inc. Telephone: 908-537-2155 PO Box 144, 405 Old Main Street Telefax: 908-723-2908

Asbury, NJ 08802 Preparer: AVT

Email Address: albert@asbury.com

Date Prepared: 6/9/2015

1.4: Emergency Telephone Number:

Callers must reference the Contract Number: Chemtel Contract Number: MIS0001931

Collect Calls are accepted US: 1-800-255-3924

International: +01-813-248-0585.

China: 400-120-0751, Brazil: 0-800-591-6042, India: 000-800-100-4086 Mexico: 01-800-099-0731















Section 2: Hazards Identification

2.1: Classification of substance

Petroleum coke is not a hazardous substance

2.2: Label Elements

Petroleum coke is not a hazardous substance, no label elements are required

2.3: Other hazards

OSHA defined hazard: Combustible dust.

Section 3 – Composition/Information on Ingredients:

Chemical Composition: Petroleum coke (100%)

CAS # 64741-79-3 EC # 265-080-3

Molecular Weight: 12.0

Section 4 - First Aid Measures

4.1.1	Remove patient to particulate-free environment. Wear approved dust mask to avoid	
Inhalation	breathing dust. Seek medical attention if irritation or breathing difficulty persists.	
4.1.2 Skin	Wash with mild soap and warm water: Petroleum coke is non-staining to skin and is	
contact	not a chemical irritant.	
4.1.3 Eye	Rinse with tepid water until eyes are clear of particulates. Seek medical attention if	
contact	irritation persists.	
4.1.4	Get immediate medical attention. Do not induce vomiting unless directed by medical	
Ingestion	personnel. Petroleum coke is not known to be toxic by ingestion. However, ingestion	
	may cause digestive system blockage.	
4.2 Most important symptoms and effects, both acute and delayed: No Data Available		
4.3 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.		

Section 5 – Fire Fighting Measures

Petroleum coke is not flammable under normal conditions		
5.1 Extinguishing Media	Dry chemical extinguisher, water spray or fog, sand, limestone powder,	
5.2 Special Hazards	This substance will burn but is not easily ignited. At temperatures above 1500 C, 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 petroleum coke.	
Products of		
Combustion:	Carbon dioxide, CO ₂ , carbon monoxide, CO, sulfur dioxide, SO ₂ .	
5.3 Advice for Fire Fighters: Use self contained air pack, gloves, safety goggles		
5.4 Additional Information: USA NFP Rating 010		















Section 6 - Accidental Release Measures

	Wear approved dust mask, safety goggles, and conventional work		
	gloves.		
Methods for Cleaning	Conventional Sweep or vacuum. Avoid creating dusting conditions		
Up:			

- 6.1 Personal precautions, protective equipment and emergency procedures
- 6.1.1 For non-emergency personnel: Wear approved dust mask, safety goggles, and conventional work gloves. Use conventional cleanup techniques and avoid creating dust. Vacuum is preferred over sweeping. Wear a dust mask/respirator to reduce the change of inhaled dust. Petroleum coke is electrically conductive and any cleanup methods should avoid contacting petroleum coke with electrical circuitry.
- 6.1.2 For emergency responders: Wear approved dust mask, safety goggles, and conventional work gloves. Same methodology as for non-emergency personnel(sec 6.1.1)
- 6.2 Environmental Precautions: 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.
- 6.3 Methods and material for containment and clean up: No special containment needed other than conventional vacuuming and waste containment. Avoid creating dust. Petroleum coke is electrically conductive and any cleanup methods should avoid contacting petroleum coke with electrical circuitry.
- 6.4 Reference to other sections: Not needed
- 6.5 Additional information: Not needed

Section 7 – Handling and Storage

7.1 Precautions for safe handling

- 7.1.1 Handling Use conventional methods, but avoid dusting conditions. Keep powder from contacting eyes. Petroleum coke is a conductor of electricity. Avoid contact between petroleum coke and electrical circuitry.
- 7.2 Conditions for safe storage, including any incompatibilities.

Storage and Incompatibilities Store all carbonaceous materials in a dry location. Petroleum coke is incompatible with all oxidizing agents

Dust Explosibility Hazards: Very finely divided petroleum coke powder poses a slight risk of dust explosion hazard: Dust class ST1, MIE greater that 10 J (very low hazard of spark ignition). Do not allow dust to accumulate on surfaces such as beam webs, ceiling members, etc. The sudden release of overhead dust could result in a hazardous condition.















Section 8 – Exposure Controls/ Personal Protection

8.1 Control parameters

8.1.1 Occupational exposure limits				
Component	CAS No.	%	ACGIH TWA	Control Reference
Petroleum coke	64741-79-3	100	3.0 mg/m ³ Respirable particles	2014 ACGIH TLV Handbook: Low toxicity/insoluble or poorly soluble-Not otherwise specified
Ptroleum coke	64741-79-3	100	10.0 mg/m ³ Inhalable dust	2014 ACGIH TLV Handbook: Low toxicity/insoluble or poorly soluble-Not otherwise specified
Engineering Measures	Use adequate dust collection to maintain dust levels below the control or recommended values.			
Respiratory Protection	Approved dust mask, type N95 recommended.			
Eye Protection	Conventional safety glasses or goggles.			
Skin Protection	Conventional work gloves and clothing.			
Additional	None			

8.2 Exposure controls

- 8.2.1 Appropriate engineering controls: Use adequate dust collection to maintain dust levels below the control or recommended values.
- 8.2.2 Personal protective equipment
- 8.2.2.1 Eye/Face Protection: Wear laboratory goggles, or full side shielded safety glasses.
- 8.2.2.2 Skin Protection: Conventional work gloves and clothing.
- 8.2.2.3 Respiratory Protection: Approved dust mask, type N95 recommended.
- 8.2.3 Environmental exposure controls: Petroleum coke is inert and insoluble. To the best of our knowledge, petroleum coke will not present any environmental hazards. No special environmental exposure controls, other than standard practices for dust and spill control, are required.

Section 9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Color:	Gray to Black	Material State	Solid, granular or powder
Odor	No significant odor		
Boiling Point:	NA	Melting Point	Sublimates at 3652C
Specific Gravity	1.7-2.0	Vapor Density	Not applicable
Vapor Pressure (mm	NA	% Volatile (By	8-15%
Hg)		Wt.)	
Solubility in Water	Insoluble	Evaporation Rate:	Not applicable
pH	NA	Auto Ignition	Above 500 °C
Decomposition	Oxidizes above 450C	Dust Explosion	ST1=KST>150-200 bar m/s,
Temp		Information	MIE> 500mJ.
Flash Point	NA Solid substance with very high melting point.		

















Section 10 - Stability and Reactivity

10.1 Reactivity	Petroleum coke is non-reactive under ambient conditions.
10.2 .Stability	Stable. Will not polymerize or self react spontaneously.
10.3 Possibility of	None known
hazardous reactions	
10.4 Conditions to Avoid	Avoid contact with oxidizing agents. Petroleum coke will begin to oxidize at temperatures above 450 C.
10.5 Incompatible materials	Oxidizing agents
10.6 Hazardous products of decomposition	Carbon Dioxide (CO ₂), Carbon Monoxide (CO), Sulfur dioxide (SO ₂)
Flammable Limits (% by Vol.)	LEL and UEL values not available: Minimum Ignition Energy (MIE) greater than 500 milijoules. When exposed to high energy ignition sources very finely divided petroleum coke powder can form explosive mixtures with air. Avoid contact between petroleum coke dust clouds and high energy ignition sources. Classified as combustible but not flammable. ST1=KST>150-200 bar m/s, MIE> 500mJ.

Section 11 – Toxicological Information 11.1 Information on toxicological effects

Toxicological information about petroleum coke is not available. Petroleum coke is inert, insoluble and is not expected to present an ingestion, or other acute toxicity hazard.

STOT Classification: Not available

Aspiration hazard: Solid substance. Based on available data the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics:

<u>In case of ingestion:</u> petroleum coke is inert and insoluble, no ingestion toxicity is expected. However, irritation of the gastrointestinal tract may occur.

In case of skin contact: Mechanical irritation is possible.

<u>In case of inhalation:</u> Inhalation may result mechanical irritation of the respiratory tract. No symptoms are expected if relevant occupational exposure levels are adhered to. In situations of repeated excessive lung overload due to a high airborne concentration of particles of respirable size for extended periods of time pneumoconiosis may develop. See section 4 for first aid measures.

<u>In case of eye contact:</u> No irritation or corrosion is expected. Mechanical irritation is possible. No human data on effects after eye contact. See section 4 for first aid measures.















Section 12 – Ecological Information

12.1 Toxicity:	Petroleum coke is inert and insoluble. To the best of our knowledge, petroleum coke does not present any significant environmental hazards unless present in very high concentrations. Carbon is the principal
	constituent of petroleum coke, and is not expected to pose a toxic hazard to aquatic organisms.

- 12.1.1 Aquatic Toxicity: Data not available. petroleum coke is not water soluble and does not present a soluble-ion hazard. Fine petroleum coke particles suspended in natural water bodies may be harmful to organisms sensitive to suspended solids.
- 12.1.2 Sediment toxicity: None known.
- 12.1.3 Terrestrial toxicity: None known.
- 12.2 Persistence and degradability: 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.
- 12.3 Bioaccumulation potential: There is no evidence indicating that petroleum coke is bioaccumulative.
- 12.4 Soil Mobility: Petroleum coke is not expected to have mobility in soil as it is an insoluble, inorganic substance.
- 12.5 PBT and vPvB assessment: Petroleum coke is not a persistent bioaccumulative and toxic substance.
- 12.6 Other adverse effects: None known. Petroleum coke has no ozone depleting potential.

Section 13 - Disposal Considerations

Dispose of in a manner which conforms to local, state and Federal regulations.

Petroleum coke is a reduced form of carbon. Petroleum coke is non-hazardous but disposal of waste should be handled in a responsible matter.

Petroleum coke is a form of elemental carbon so it is not biodegradable.

Provision of a European Waste Catalog, waste code number, should be handled in agreement with the regional waste disposal company.

Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle















Section 14 – Transport Information

14.1 UN Number	Not applicable
14.2 UN Proper shipping name	Not applicable
14.3 Transport hazard class	Not applicable
14. 4 Packing Group	Not applicable
14.5 Environmental hazards	None known
Marine Transport	Not classified as a hazardous material
Land Transport	Not classified as a hazardous material
Air Transport	Not classified as a hazardous material
Transport Label Required	No label required

Section 15 – Regulatory Information

15.1 Regulatory Status and Inventories

Not Classified			
Inventory Information:			
EEC EINECS	# 265-080-3		
US TSCA	Yes		
Canada DSL	Yes		
Canada NDSL	No		
Australian AICS	Yes		
Korean ECL	Yes KE-06251		
IECSC	Yes		
New Zealand NZLoC	Yes		
INSQ Mexico	Yes		
SARA302	Not Listed		
SARA 313	Not Regulated		
REACH: Petroleum coke is exempt from REACH registration per Annex V, Paragraph X.			
RoHS: Petroleum coke is compliant with the EU RoHS directive			
WEEE: Petroleum coke is compliant with the EU waste electrical and electronic equipment			
directive			
15.2 Chemical Safety Assessment: For this substance a chemical safety assessment is not			
required			

Section 16 - Other Information

Abbreviations Used:

ACGIH American Council of Government and Industrial Hygienists

TWA Time Weighted Average value.
CAS Chemical Abstracts Service

NA Not applicable

N.O.S. Not otherwise specified

BW Body weight













