

Safety Data Sheet

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

Revision: June 11, 2025

1 – Identification

Product identifier

- **Trade name:** Green petroleum coke
- **CAS Number:** 64741-79-3
- **REACH Registration #:** Exempt
- **Recommended use:** 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.
- **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

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15)

Classification of the substance or mixture

Skin Sensitizer: Category 1. Carcinogen: Category 1A. Reproductive toxicant (developmental): Category 2.
Combustible Dust

Label Elements

GHS label elements

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

Hazard pictograms:



- **Signal word:** Danger

Hazard statements:

H317: May cause allergic skin reaction. H350: May cause cancer. H361: Suspected of damaging the unborn child. May form combustible dust concentrations in air

Precautionary statements:

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P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P261: Avoid breathing dust. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves and clothing. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations

· **Additional information:**

Read the label and safety data sheet before use. Prevent dust accumulations to minimize explosion hazard. Keep away from all ignition sources including heat, sparks and flame.

Other hazards: May form explosible dust-air mixture if dispersed.

3 – Composition/Information on Ingredients

Chemical characterization: Substances

Description	CAS No.	Hazard Codes	Weight %
Green petroleum coke	64741-79-3	none	>98%
Nickel Oxide	1313-99-1	H317, H350(1A), H372, H413	0.1-1%
Vanadium Pentoxide	1314-62-1	H302, H332, H335, H341, H361(D), H318, H372, H401, H411	0.1-1%

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. Green 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**

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This substance will burn but is not easily ignited.

At temperatures above 1500 C, this material reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate exposed product.

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

This material 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. This material is electrically conductive and any cleanup methods should avoid contacting this product 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. This material can conduct electricity. Avoid contact between product and electrical circuitry.

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 than 10 J (very low hazard of spark ignition)

Conditions for safe storage, including any incompatibilities

Store all carbonaceous materials in a dry location. This product 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	%	Limit	Standard	Control Reference
Green petroleum coke	64741-79-3	100	3.0 mg/m ³ respirable particles 10.0 mg/m ³ inhalable dust	TWA	ACGIH
Vanadium Pentoxide (as V ₂ O ₅)	1314-62-1	0.1-1%	0.1 mg/m ³ fumes 0.5 mg/m ³ respirable dust	Ceiling	OSHA Z1
Vanadium Pentoxide (as V)	1314-62-1	0.1-1%	0.05 mg/m ³	TWA	ACGIH

Exposure controls

· General protective and hygienic measures:

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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. If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate air-purifying respirator approved for dust / oil mist is recommended.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

· **Skin Protection:** Conventional work gloves and clothing.

· **Eye protection:** Conventional safety glasses or goggles.

· **Environmental exposure controls:**

This material is inert and insoluble. To the best of our knowledge, product 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: Sublimates at 3652 deg °C

Boiling point/Boiling range: Not determined

Flash point: Not determined

Flammability (solid, gaseous): not flammable

Auto-ignition temperature: Above 500 deg C

Decomposition temperature: Oxidizes above 450 °C

% Volatile: 8-15%

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.

ST1=KST>150-200 bar m/s. Minimum Ignition Energy (MIE) greater than 500 millijoules.

Explosion limits

Lower: Not determined

Upper: Not determined

Oxidizing properties: Non-oxidizing

Vapor pressure: Not determined

Relative density: 1.7-2.0

Vapor density: Not applicable

Evaporation rate: Not applicable.

Solubility in / Miscibility with Water: Insoluble

Partition coefficient (n-octanol/water): Not determined

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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 atmosphere.

Possibility of hazardous reactions:

When exposed to extremely high energy ignition sources, very finely-divided green petroleum coke powder can form explosive mixtures with air. (Minimum Ignition Energy (MIE) greater than 500 millijoules.) Avoid contact between green 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:** Contains a substance that may cause skin sensitization. Based on assessment of the components

IARC (International Agency for Research on Cancer): Nickel oxide, CAS 1313-99-1 (Group 1)

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: Caused cancer from prolonged, high exposure. Based on human epidemiology studies. Based on assessment of the components.

Reproductive toxicity: Contains a substance that may be a reproductive toxicant. Based on assessment of the components.

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:

This material is inert and insoluble. To the best of our knowledge, this product does not present any significant environmental hazards. Carbon is the principal constituent of this product, and is not expected to pose a toxic hazard to aquatic organisms.

Aquatic toxicity:

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

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Persistence and degradability:

This product 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 product 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): Nickel oxide, CAS 1313-99-1, 0.1-1%

TSCA (Toxic Substances Control Act): All components have the value ACTIVE or EXEMPT.

Proposition 65 (California)**Chemicals known to cause cancer:**

Nickel oxide: CAS 1313-99-1, Vanadium pentoxide: CAS 1314-62-1

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): Nickel oxide, CAS 1313-99-1, 0.1-1%

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

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

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