MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Petroleum Coke

Synonyms : Green Coke, Uncalcined Coke, Thermocracked Coke, Fuel Grade Coke,

Product Use Description : Fuel

Company : Phenix Enterprise

Office 17, Plot 27, Near New Bus Stand, Samakhiyali – Kutch – Gujarat - India

Call Center : 9687037876

SECTION 2. HAZARDS IDENTIFICATION

Classifications : Combustible Dust

Pictograms None

Signal Word WARNING

Hazard Statements May form combustible dust concentrations in air.

Excessive exposure may cause skin, eye or respiratory tract irritation.

Precautionary Statements

Prevention: Avoid accumulations of finely ground dust.

Keep away from flames and hot surfaces. No smoking.

Wear gloves, eye protection and face protection as needed to prevent skin and eye contact with liquid.

Wash hands or liquid-contacted skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe dust.

Use only outdoors or in a well-ventilated area.

Response

In case of fire: Use dry chemical, CO2, water spray or fire fighting foam to extinguish.

If on skin (or hair): Rinse skin with water or shower. Remove and washcontaminated clothing.

If in eye: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.Immediately call or doctor or

emergency medical provider. If skin, eye or respiratory system irritation persists, get medical attention.

Storage

Avoid generating heavy concentrations of airborne, finely-ground petroleum coke dust. Avoid accumulations of finely ground dust on surfaces of equipment or buildings.

Disposal

Dispose of contents/containers to approved disposal site in accordance with local, regional, or national regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Coke (Petroleum)	64741-79-3	100%

SECTION 4. FIRST AID MEASURES

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

Skin contact : Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Wash contaminated clothing before re-use. Seek medical advice if symptoms persist or develop.

Eye contact : Remove contact lenses. Immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Seek medical advice.

Ingestion : Ingestion is considered unlikely. However, inhalation procedures should be followed if this happens. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

Notes to physician :Symptoms: Vomiting, Diarrhea, Pain

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray, Dry chemical, Foam, Carbon dioxide blanket, A solid stream of water may scatter and spread the fire.

Specific hazards during fire :Product will burn. In very large quantities, spontaneous heating and combustion fighting may occur. Fire will produce dense black smoke containing hazardous combustion products (see Section 10).

Special protective equipment for fire-fighters :Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : ACTIVATE FACILITY'S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN if applicable. Ventilate the area. Evacuate personnel to safe areas.

Environmental precautions : Prevent further leakage or spillage. Should not be released into the environment. Do not allow material to contaminate ground water system.

Methods for cleaning up : Carefully vacuum, shovel, scoop or sweep up into a waste container for reclamation or disposal. Water fog may be necessary to minimize dust generation. Respiratory protection is recommended where visible dust may be generated.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling :

Minimize physical contact with the product. Avoid conditions which create dust. Do not breathe vapors or dust. Avoid dispersal of coke dust into air such as cleaning dusty surfaces with compressed air.

Keep away from heat and sources of ignition. No smoking near areas where material is stored or used. Ground and bond containers during product transfers to reduce the possibility of static-initiated fire or explosion.

Dust explosion class :

High concentrations of airborne petroleum coke dusts may be ignited by contact with heated surface. Airborne coke dust is primarily a fire hazard, but explosion may be possible.

Conditions for safe storage, including incompatibilities :

Avoid generation and accumulation of dust when handling this material. Refer to NFPA 654 Standard for Prevention of Fire & Dust Explosions.

Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

List	Components	CAS-No.	Type:	Value
OSHA	Petroleum Coke	64741-79-3	TWA	15mg/m3 (total dust) 5 mg/m3 (respirable dust)
ACGIH	Petroleum Coke	64741-79-3	TL	10 mg/m3 (total dust) 3 mg/m3 (respirable dust)
OSHA	Coal Tar Pitch Volatiles Benzene Soluble Fraction	65996-93-2	TWA	0.2 mg/m3
ACGIH	Coal Tar Pitch Volatiles Benzene Soluble Fraction	65996-93-2	TLV	0.2 mg/m3

NOTE: Limits shown for guidance only. Follow applicable regulations.

Engineering measures : Use adequate ventilation to keep dust concentrations of this product below occupational exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Dust control equipment such as local exhaust ventilation or material transport systems handling coke should contain explosion relief vents or explosion suppression systems.

Eye protection : Indirect vented, dust-tight goggles are recommended if dust is generated when handling this product.

Hand protection : Work gloves are recommended if needed to prevent repeated or prolonged skin contact.

Skin and body protection : Disposable clothing such as Tyvek® (DuPont) may be warranted to minimize skin and clothing contamination, depending on the work to be performed. Flame resistant clothing such as Nomex ® is recommended in areas where material is stored or handled.

Respiratory protection : A NIOSH/ MSHA-approved air-purifying respirator with particulate classification N-95 or greater filter cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. Use a NIOSH/ MSHA-approved positive-pressure supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Hygiene measures : Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. When using do not eat, drink or smoke. Promptly remove contaminated clothing and launder before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark brown to black solid
Odor	Asphalt – like odor
Odor threshold	Not determined
pH	Not determined
Melting point/freezing point	Not determined
Initial boiling point	Not determined
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Solid
Upper flammable limit	Not determined
Lower flammable limit	15 to 1000 g/m³
Vapor Pressure	Not applicable
Vapor density (air = 1)	No data available
Relative density (water = 1)	>1.0
Solubility (in water)	Insoluble
Partition coefficient (n-octanol/water)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Airborne dust may become flammable or explosive.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Keep away from oxidizing agents, and acidic or alkaline products.
Conditions to avoid	Avoid accumlulation of finely ground dust. Minimize generation of airborne dust. See Section 7 for additional information.
Hazardous decomposition products	In case of fire, hazardous decomposition products may be produced such as carbon monoxide, carbon dioxide, hydrocarbons and smoke. No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Inhalation	Inhalation of excessive dust concentrations may be irritating to the upper respiratory system. Repeated chronic inhalation exposure may cause impaired lung function. There is no evidence that such exposures cause pneumoconiosis, carcinogenicity, or other chronic health effects.
Ingestion	Low order of oral toxicity. Ingestion is considered unlikely. However, good personal hygiene such as washing hands and face after handling or contacting material before eating, drinking or smoking should be practiced to minimize ingestion of this product.
Skin contact	Contact may cause skin irritation.
Eye contact	May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Further information	Repeated inhalation of the petroleum coke dust (10.2 and 30.7 mg/m3) over a two-year period resulted in lung damage typical of high dust exposure including inflammation and scarring in rats. Similar exposures in monkeys did not produce similar lung effects. There was no observation of a carcinogenic effect at any dose following a lifetime exposure. There is no evidence of pneumoconiosis or carcinogenicity in human health studies. 24 months of exposure in monkeys and rats to either 10.2 or 30.7 mg/m3 of coke dust resulted in lung accumulation of dust. There was no associated tissue abnormality in monkeys. A low level inflammatory response developed in the rat lung at 10.2 mg/m3 and more significant inflammatory changes occurred in the rat lung at 30.7 mg/m3. There was no evidence of carcinogenicity in either species. Mouse skin painting bioassay negative.
Acute oral toxicity	LD50 rat Dose: > 2,000 mg/kg The toxicological data has been taken from products of similar composition.
Acute dermal toxicity	LD50 rabbit Dose: > 2,000 mg/kg The toxicological data has been taken from products of similar composition.
Carcinogenicity	
NTP	No component of this product which is present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by NTP.
IARC	No component of this product which is present at levels greater than or equal to 0.1 % is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product which is present at levels greater than or equal to 0.1 % is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information	:	Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal	:	Dispose of container and unused contents in accordance with federal, state and local requirements. Product is suitable for burning for fuel value in compliance with applicable laws and regulations. RCRA: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 14. TRANSPORT INFORMATION

CFR	:	Not regulated by USA DOT 49 CFR.
ICAO/IATA	:	Not regulated by ICAO/IATA.

SECTION 15. REGULATORY INFORMATION

STATE AND LOCAL REGULATORY INFORMATION

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to national, state and/local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facilty/operation.

SECTION 16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.