



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
(ऑइल एंड नैचुरल गैस कार्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
(A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
F&S/MSDS
Rev 4

PRODUCT NAME: PETCOKE[BACK](#)**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY**

Product Name : Pet Coke - Fuel Grade		Chemical Designation : Petcoke	
Trade Name : Petcoke		Synonyms : Green Coke, Uncalcined Coke, Thermocracked Coke, Fuel Grade Coke	
Formula : - Not Available (NA)	Label : NA	CAS No : 64741-79-3	UN No. 3077/1325
Regulated Identification : NA	Shipping Name : Petcoke		Hazchem Code : 2W1Z
Firm's Name : Mangalore Refinery & Petrochemicals Ltd.		Mailing Address : At P.O Kuthethoor, Mangalore-575030 (D.K.)	
Telephone Number : (0824)2270400		Tele Fax. Number : (0824)2270013	
Contact Persons In Case of Emergency :		Emergency Telephone During Transit : (0824)2882898	
		Head-Marketing TEL: : (0824)2882739, 2718,3702,2717,2746	
		Fire & Safety ,Control Room TEL: : 0824 288 2333 / 3333	

2. HAZARD IDENTIFICATION

Component : 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	<ul style="list-style-type: none"> • 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. 	


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Response	<ul style="list-style-type: none"> 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 wash contaminated 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	<ul style="list-style-type: none"> Avoid generating heavy concentrations of airborne, finely-ground petroleum coke dust. Avoid accumulations of finely ground dust on surfaces of equipment or buildings.
Disposal	<ul style="list-style-type: none"> Dispose of contents/containers to approved disposal site in accordance with local, regional, or national regulations.

3.COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	% by Weight
Petroleum Coke	64741-79-3	100

4. FIRST AID MEASURES

Modes of Exposure	Symptoms/Effects	First-aid measures
Inhalation	High concentrations of dust and fumes may irritate the throat and respiratory system and cause coughing. Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung diseases.	If inhaled, remove to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician.


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Skin contact	Dust may irritate skin. Prolonged skin contact may cause redness, irritation drying and cracking of skin. May cause eczema-like skin disorders (dermatitis).	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	Direct contact with eyes may cause temporary irritation.	Remove contact lenses if present. 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. Do not rub the eyes. Seek medical advice.
Ingestion	Ingestion of dusts generated during working operations may cause nausea and vomiting.	Rinse mouth thoroughly if dust is ingested. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Water spray, Water fog, Dry chemical, Foam, Carbon dioxide blanket.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

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

Special protective equipment for fire-fighters: Wear full protective clothing, including helmet, self-contained breathing apparatus, protective clothing and face mask. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray.

Precautions for fire-fighters: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray.



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NFPA rating: Health-0 , Flammability -1 , Reactivity-0 , Specific Hazard -NA

6. ACCIDENTAL RELIEF MEASURES

Personal precautions: Avoid generation and spreading of dust. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing and gloves.

Personal Protective equipment : Refer section 8

Emergency procedures : Ventilate the area. Evacuate personnel to safe areas. Keep upwind. Keep out of low areas.

Methods of containment: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas.

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.

7. HANDLING AND STORAGE

Precautions for safe handling: Minimize physical contact with the product. Use work methods which minimize dust production. Do not breathe vapours 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.

Conditions for safe storage, including incompatibilities: Avoid generation and accumulation of dust when handling this material. Ventilate the area. Refer to NFPA 654 Standard for Prevention of Fire & Dust Explosions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

List	Components	CAS-No.	Type:	Value
OSHA	Petroleum Coke	64741-79-3	TWA	15mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

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


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Engineering controls : Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation is required. Provide explosion-proof ventilation for high dust concentrations. Observe occupational exposure limits and minimize the risk of inhalation of dust and fumes. Provide access to washing facilities including soap, skin cleanser and fatty cream.

Individual Protection Measures

Eye protection	Use dust-tight safety goggles.
Hand protection :	Work gloves are recommended if needed to prevent repeated or prolonged skin contact.
Skin and body protection :	Wear chemical-resistant, impervious gloves. Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.
Respiratory protection :	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for non routine and emergency use.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour: Black	Appearance: Irregular shaped black solid	Odor: None	Odor threshold: Not applicable
pH: Not applicable	Melting point/freezing point : Not Applicable (Refer Note 1)	Initial boiling point and Boiling range: Not applicable (Refer note 1)	Flash point: Not Applicable (Refer Note 1)
Evaporation rate: Not applicable (Refer Note 1)	Flammability (solid, gas):	Upper/Lower flammability limits: Not determined	Vapor Pressure: Not applicable. (Refer Note 1)
Vapor density : Not Applicable (Refer Note 1)	Relative density (water = 1) : 750 to 800 kg/m ³ (dry)	Solubility (in water): Insoluble	Partition coefficient (n-octanol/water): Immiscible
Auto-ignition temperature: Greater than 600°C	Decomposition temperature : Not Applicable (Refer Note 1)	Viscosity: Not applicable (Refer Note 1)	

Note:

- Petroleum coke is a product of extreme temperature and pressure treatments that convert heavy petroleum feedstocks into a solid substance composed predominately of carbon. At ambient temperature and pressure,


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petroleum coke exists as a solid, hardened residuum remaining from the feedstocks, the physio chemical parameters indicated either cannot be measured using standard testing procedures or would not provide meaningful information.

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 accumulation of finely ground dust. Minimize generation of airborne dust.

Incompatible materials: Strong oxidising agents

Hazardous decomposition products: In case of fire, hazardous decomposition products may be produced such as carbon oxides, sulphur oxides, nitrogen oxides, hydrocarbons and smoke.

11. TOXICOLOGICAL INFORMATION

Modes of Exposure	Effects		Symptoms
	Acute (Immediate)	Chronic (Delayed)	
Inhalation	May cause irritation.	May cause lung diseases	Refer section 4
Skin contact	May cause skin irritation.	May cause redness, irritation drying and cracking of skin. May cause eczema-like skin disorders (dermatitis).	
Eye contact	May cause irritation	May reduce visibility and cause unpleasant deposits in eyes.	
Injection	May cause nausea and vomiting	No data available	
Carcinogenicity			
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.	

12. ECOLOGICAL INFORMATION

Keep out of sewers, drainage areas, and waterways. Report spills and releases. The product is having extremely low water solubility.

13. DISPOSAL CONSIDERATIONS

Disposal: Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and reclaim or recycle, if practical.



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14. TRANSPORT INFORMATION

The Central Motor Vehicle Rules (1989) (as per OISD-STD-114)	Chemical Name	Hazard Class	UN No.	Packing group	Labels Required
	Petcoke	4.1,9	3077/1325	III	Combustible Solid

15. REGULATORY INFORMATION

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 facility/ operation.

16. OTHER INFORMATION

Other Information: MRPL advises the users of this product to study this material safety data sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, users should notify their employees, agents and contractors of the information on this MSDS and any product hazards and safety information

Last Revision date:

Preparation Date:

Disclaimer: This Material Safety Data Sheet (MSDS) was prepared in accordance with OSHA 29 CFR 1910.1200 (Hazard Communication Standard) by MRPL. MRPL does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this MSDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.