



Material Safety Data Sheet

MSDS ID NO.: 0109MAR019
Revision date: 07/08/2013

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Marathon Petroleum Coke
Synonym: Petroleum Coke; Calcined Coke
Chemical Family: Complex hydrocarbon
Formula: Mixture
Manufacturer:
Marathon Petroleum Company LP
539 South Main Street
Findlay OH 45840

Other information: 419-421-3070
Emergency telephone number: 877-627-5463

2. COMPOSITION/INFORMATION ON INGREDIENTS

Petroleum Coke is a solid carbon material produced from high temperature treatment of heavy petroleum fractions. Composition varies depending on source of final product. Polycyclic aromatic hydrocarbons (3-7 ring), such as benzo(a)pyrene, are present in trace concentrations (<0.1%).

Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon Petroleum Coke	64741-79-3	100			

Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Petroleum Coke	64741-79-3	100			

Notes: The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING.

May form combustible dust concentrations in air

POTENTIAL HEALTH EFFECTS FROM OVEREXPOSURE

Inhalation:

Excessive dust from powdered material (>5 mg/kg) may cause mild respiratory irritation.

Ingestion:

Not likely to be toxic by ingestion.

Skin contact:

None expected from acute exposure.

Eye contact:

Dust may be a mechanical irritant.

Carcinogenic Evaluation:

Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon Petroleum Coke 64741-79-3	NE			

Notes:

The International Agency for Research on Cancer (IARC) has not evaluated this product.

Component Information:

4. FIRST AID MEASURES

Eye contact:

Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.

Skin contact:

Wash with soap and large amounts of water. If symptoms or irritation occur, call a physician.

Ingestion:

Ingestion not likely. If large amounts are swallowed, immediately call a physician.

Inhalation:

If affected, move person 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. If symptoms or irritation occur with any exposure, call a physician.

NOTES TO PHYSICIAN:

No data available.

Medical Conditions

Aggravated

By Exposure:

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	For small fires, Class B fire extinguishing media such as CO ₂ , dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.
Specific hazards:	May form combustible dust concentrations in the air. Fine dust dispersed in sufficient concentrations in the air, and in the presence of an ignition source is a potential dust explosion hazard. Non-sparking tools/equipment should be considered when a potentially combustible dust environment exists.
Special protective equipment for firefighters:	Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid excessive water spray application. Keep run-off water out of sewers and water sources.
Flash point:	>200 F
Autoignition temperature:	No data available.
Flammable limits in air - lower (%):	No data available.
Flammable limits in air - upper (%):	No data available.

NFPA rating:

Health: 1
 Flammability: 1
 Instability: 1
 Other: -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Dust deposits dispersed into the atmosphere in sufficient concentration may form an explosive mixture. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.

7. HANDLING AND STORAGE

Handling: Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements. Contact with hot product may cause burns. Avoid breathing dust. Avoid contact with eyes. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (See Section# 8). Do not wear contaminated clothing or shoes.

Storage: To avoid the combustible dust hazard, minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations and cause an electrical spark. Provide adequate precautions, such as electrical grounding and bonding, or nonreactive atmospheres. When stored indoors keep in a cool, well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Petroleum Coke may be stored outdoors with proper provisions for containment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Engineering measures:	Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
Respiratory protection:	Not required under normal conditions and adequate ventilation. Use dust/ fume respirator if use generates excessive dust/fume or concentrations exceed permissible limits.
Skin and body protection:	Gloves.
Eye protection:	Dust goggles if use produces excessive dust/fume concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Black Porous Chunks or Powder
Physical state (Solid/Liquid/Gas):	Solid
Substance type (Pure/Mixture):	Mixture
Color:	Black
Odor:	Slight Hydrocarbon
Molecular weight:	Not determined.
pH:	Neutral
Boiling point/range (5-95%):	7600 F
Melting point/range:	6300 F
Decomposition temperature:	Not applicable.
Specific gravity:	0.8-1.0
Density:	No data available.
Bulk density:	No data available.
Vapor density:	No data available.
Vapor pressure:	Negligible
Evaporation rate:	No data available.
Solubility:	Negligible
Solubility in other solvents:	No data available.
Partition coefficient (n-octanol/water):	No data available.
VOC content(%):	No data available.
Viscosity:	No data available.

10. STABILITY AND REACTIVITY

Stability:	The material is stable at 70 F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Carbon monoxide and carbon dioxide, hydrocarbons
Materials to avoid:	None known.
Conditions to avoid:	Dust can form flammable mixtures in air.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product information:

Name	CAS Number		Dermal:	Oral:
Marathon Petroleum Coke	64741-79-3	No data available	No data available	No data available

Toxicology Information:

Petroleum coke did not affect fertility or reproductive performance in pregnant female rats exposed to up to 300 mg/m³, 6 hours/day for 28 days although some portal-of-entry toxicity (inflammation, discolored lungs and increased lung weight) was observed. Petroleum coke was found not to be carcinogenic in monkeys and rats in a two-year inhalation study at concentrations up to 30 mg/m³. Chronic inflammatory changes similar to those produced by non-specific respiratory irritants were observed in some rats at the highest exposure level. Chronic skin painting studies of coke dust in mice did not produce evidence of carcinogenicity. Petroleum coke (delayed process and fluid process) was found not to be mutagenic in a rat in vivo bone marrow cytogenetic test, a mouse lymphoma assay and an Ames mutagenicity assay.

12. ECOTOXICOLOGICAL INFORMATION

Mobility:

No data available.

Ecotoxicity:

Aquatic Toxicity:

No data available.

Bioaccumulation:

No data available.

Persistence/Biodegradation:

The 48 and 96 hour LL50s for a water accommodated fraction (WAF) of petroleum coke are >1000 mg/l in both daphnia and fathead minnows, respectively. Coke did not produce any adverse effects on fresh water algae at WAF concentrations of >1000 mg/l. Earthworms and seedlings (corn, radish & soybean) were unaffected by the presence of concentrations of 1000 mg/kg coke in the soil.

13. DISPOSAL CONSIDERATIONS

Cleanup Considerations:

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 260-271). However, when discarded, spilled or disposed of, it can become an EPA RCRA hazardous waste. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

14. TRANSPORT INFORMATION

49 CFR 172.101:

DOT:

Transport Information:

This material when transported via US commerce is NOT REGULATED by DOT regulations.

Packing group:

Not applicable.

DOT reportable quantity (lbs):

Not applicable.

15. REGULATORY INFORMATION

US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard: This product has been evaluated and determined not to be hazardous as defined in OSHA's Hazard Communication Standard.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Petroleum Coke	NA

SARA Section 304: This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Petroleum Coke	NA

SARA The following EPA hazard categories apply to this product:

None

SARA Section 313: This product contains the following components, which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
Petroleum Coke	None

State and Community Right-To-Know Regulations:

The following component(s) of this material are identified on the regulatory lists below:

Petroleum Coke

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed

Canadian Regulatory Information:

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

NOTE: Not Applicable.

16. OTHER INFORMATION

Additional Information: No data available.

Prepared by: Manager, Toxicology and Product Safety

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End of Safety Data Sheet