MATERIAL SAFETY DATA SHEET

Calcined Coke

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Calcined Coke
Product Code: 8910, 8911, 8912, 8913, 8921, 8922, 8930, 8932, 8951
Synonyms: Alliance - Petroleum Coke, Calcined - 1057
Conoco MSDS # COKC0010
BP - Base Premium
Calcined Anode
CCC Hi-D Calcined Coke, ROK
CCC MD Calcined Coke, ROK
FINES - Coke Fines
HSR - High Sulfur Recarburizer
HISR - Intermediate Sulfur Recarburizer
LIP - Intermediate Premium
LNP - Normal Premium
LSR - Low Sulfur Recarburizer
LXP - X-Coke
MSR - Medium Sulfur Recarburizer
Needle Coke
NSR - Normal sulfur Recarburizer
Refinery Calcined Coke
Rodeo - Calcined Coke
Santa Maria - Calcined Petroleum Coke
Santa Maria - Lump, Fines
SMRC Calcined Coke, Lump, or Fines
Chemical Family: Carbon

Responsible Party: ConocoPhillips
600 N. Dairy Ashford
Houston, Texas
77079-1175

Customer Service: 918-661-1672
Technical Information: 918-661-1672

The intended use of this product is indicated above. If any additional use is known, please contact us at the Technical Information number listed.

EMERGENCY OVERVIEW

24 Hour Emergency Telephone Numbers:
Spill, Leak, Fire or Accident Call CHEMTREC:
North America: (800) 424-9300
Others: (703) 527-3887 (collect)

California Poison Control System: (800) 356-3219

Health Hazards/Precautionary Measures: Avoid contact with eyes. Wash thoroughly after handling. Wear appropriate eye protection.

Physical Hazards/Precautionary Measures: None Anticipated.

Appearance: Steel Gray to black particles and/or lumps
Physical Form: Solid
Odor: None

NFPA 704 Hazard Class:
Health: 0 (Least)
Flammability: 0 (Least)
Instability: 0 (Least)

HMIS Hazard Class:
Health: 0 (Least)
Flammability: 0 (Least)
Physical Hazards: 0 (Least)

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS					
Component / CAS No:	**Percent (%)**	**ACGIH:**	**OSHA:**	**NIOSH:**	**Other:**
Coke, Calcined 64743-05-1	100	10 mg/m^3 TWA-Tot. 3 mg/m^3 TWA-Resp.	15 mg/m^3 TWA-Tot. 5 mg/m^3 TWA-Resp.	NE	as Nuisance Dust, if Generated Coke Fibers: See Section 8 (Respiratory)

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

1%=10,000 PPM.
NE=Not Established

3. HAZARDS IDENTIFICATION

Potential Health Effects:

Eye: Dusts may be abrasive and irritating to the eyes and cause stinging, watering, and redness.

Skin: Dusts, pellets, or granules may be abrasive and mildly irritating to the skin. No harmful effects from skin absorption are expected.

Inhalation (Breathing): Low degree of toxicity by inhalation. (See Section 11, Toxicological Information)

Ingestion (Swallowing): No harmful effects expected from ingestion.

Signs and Symptoms: Effects of overexposure may include Repeated overexposures to dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumonitis (lung inflammation), coughing, and shortness of breath

Cancer: Inadequate data available to evaluate the cancer hazard of this material.

Target Organs: Inadequate data available for this material.

Developmental: No data available for this material.

Other Comments: None Known

Pre-Existing Medical Conditions: Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) disorders.

4. FIRST AID MEASURES

Eye: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: First aid is not normally required. However, it is good practice to wash any chemical from the skin.

Inhalation (Breathing): First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.

Ingestion (Swallowing): First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

5. FIRE-FIGHTING MEASURES

Flammable Properties:

Flash Point:	Not applicable
OSHA Flammability Class:	Not applicable
NFPA Flammability Class:	No data
LEL%:	Not applicable
UEL%:	Not applicable
Autoignition Temperature:	Not applicable

Unusual Fire & Explosion Hazards: No unusual fire or explosion hazards are expected.

Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Contain spill if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Isolate immediate hazard area, keep unauthorized personnel out. Cool equipment exposed to fire with water, if it can be done with minimal risk.

6. ACCIDENTAL RELEASE MEASURES

Stay upwind and away from spill. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Contain spill if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways.

Notify fire authorities and appropriate federal, state, and local agencies. Minimize dust generation. Sweep up and package appropriately for disposal.

7. HANDLING AND STORAGE

Handling: The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

Storage: Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required.

Personal Protective Equipment (PPE):

Respiratory: Small concentrations of airborne respiratory coke fibers may be present in calcined coke. Manufacturers of carbon fibers have recommended exposure limits between 1 and 5 fibers per cc, 8 hour time-weighted average. A NIOSH certified air purifying respirator with a Type 100 particulate filter may be worn when performing maintenance or other activities (e.g. sweeping, loading, grinding) likely to generate dust, unless such exposures have been determined to have low potential for the presence of airborne fibers. When the potential for fibers exposure is known to be low, a NIOSH certified Type 95 particulate filter may be used where airborne concentrations are expected to exceed exposure limits for nuisance dust (see Section 2).

Skin: Not required based on the hazards of the material. However, it is considered good practice to wear gloves when handling chemicals.

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Appearance:	Steel Gray to black particles and/or lumps
Physical Form:	Solid
Odor:	None
Odor Threshold:	No data
pH:	Not applicable
Vapor Pressure (mm Hg):	Not applicable
Vapor Density (air=1):	Not applicable
Boiling Point:	Not applicable
Solubility in Water:	0%
Partition Coefficient (n-octanol/water):	No data
Specific Gravity:	2 (Typical)
Bulk Density:	45-55
Bulk Density Units	lb/ft3
Percent Volatile:	Negligible
Evaporation Rate (nBuAc=1):	<1
Particle Size:	2 x 0
Particle Size Units	inches
Flash Point:	Not applicable
LEL%:	Not applicable
UEL%:	Not applicable
Autoignition Temperature:	Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: None known

Materials to Avoid (Incompatible Materials): Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Combustion of organic materials produces carbon dioxide and possibly carbon monoxide, vanadium and nickel oxides and sulfur dioxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Chronic Data:

Coke, Calcined - CAS: 64743-05-1
Carcinogenicity: Lifetime skin painting studies in mice in which petroleum coke was applied as a 25% mineral oil solution were negative.

Target Organs: Repeated exposure of rats to 10 and 30 mg/m^3 petroleum coke dust for two years resulted in signs of lung injury including fibrosis (scarring of lung tissue). Similar exposures in monkeys caused no significant lung effects.
Small concentrations of airborne respiratory coke fibers may be present in calcined coke. The fibers are amorphous and generally irregularly shaped, rather than having the crystalline appearance of carbon fibers. Coke fibers have not been studied, but recent laboratory animal studies have shown that carbon fibers are biopersistent in the lung. However, the studies also demonstrated a lower inflammatory response in the lung and less proliferation of the alveolar cells than fibers that are known to cause fibrosis and lung cancer.

Acute Data:

Coke, Calcined - CAS: 64743-05-1
Dermal LD50 = No information available
LC50 = No information available
Oral LD50 = No information available

12. ECOLOGICAL INFORMATION

Not evaluated at this time.

13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" or "characteristic" hazardous waste. Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Description: Not classified as hazardous

15. REGULATORY INFORMATION

U.S. Regulations:

EPA SARA 311/312 (Title III Hazard Categories)

Acute Health:	No
Chronic Health:	No
Fire Hazard:	No
Pressure Hazard:	No
Reactive Hazard:	No

SARA - Section 313 and 40 CFR 372:
This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:
--None Known--

EPA (CERCLA) Reportable Quantity (in pounds):
--None Known--

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):
This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372:
-- None Known --

California Proposition 65:
Warning: This material contains the following chemicals which are known to the State of Calfornia to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):
Chromium (Hexavalent Compounds) -- Cancer
Nickel and Certain Nickel Compounds -- Cancer

Carcinogen Identification:
This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

TSCA:
All components are listed on the TSCA inventory.

International Regulations:

Canadian Regulations:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Classification: Not regulated

International Inventories:

One or more components are listed on the following inventories:

Australia (AICS)
Canada (DSL)
China
Europe (EINECS)
Korea (Existing and Evaluated Chemical Substances)

16. OTHER INFORMATION

Issue Date:	11-Nov-2004
Previous Issue Date:	21-Jan-2003
Product Code:	8910, 8911, 8912, 8913, 8921, 8922, 8930, 8932, 8951
Reason for revision:	Personal Protective Equipment information changed. SEE SECTION 8. Toxicological information changed. SEE SECTION 11.
Previous Product Code:	Multiple
MSDS Code:	724120

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