

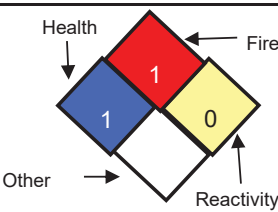
# Safety Data Sheet

## Calcined Petroleum Coke

Issued 04/14/2016

Page 1 of 4

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT/CHEMICAL NAME:	Calcined Petroleum Coke	EMERGENCY PHONE NO.	(985) 635-3400
OTHER IDENTIFICATION:	Calcined Petroleum Coke; includes Delayed and Fluid	<b>HMIS/NFPA</b>  <b>HAZARD RATING</b> <div style="border: 1px solid black; padding: 2px; display: inline-block;">                     4 = Extreme                      3 = Serious                      2 = Moderate                      1 = Minimal                 </div>	
PRODUCT USE:	Production of aluminum and titanium dioxide.		
COMPANY:	Harry R. Defler Corp 4446 Main St Buffalo, NY 14226		

### SECTION 2 - HAZARD IDENTIFICATION

HAZARD CLASSIFICATION:	Mechanical abrasion	SYMBOL:	None
SIGNAL WORD:	Warning	PRECAUTIONARY STATEMENT:	Wear safety glasses or goggles. Gloves are recommended. If there is excessive dust, a NIOSH approved respirator is recommended. Wash skin and hair thoroughly after handling.
HAZARD STATEMENT:	Repeated or prolonged contact may cause irritation of eyes, skin or respiratory system.	OTHER HAZARDS:	None Identified

### SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

CHEMICAL NAME:	Coke (petroleum), calcined	WEIGHT % (dry basis)	100
COMMON NAME AND SYNONYMS:	Calcined petroleum coke	CAS NUMBER	64743-05-1

### SECTION 4 - FIRST AID MEASURES

HEALTH HAZARDS Avoid contact with eyes. Wash thoroughly after handling.		
EXPOSURE ROUTE	ACUTE	CHRONIC
EYE CONTACT	No significant irritation expected. Possible abrasive mechanical irritation. Dust may cause stinging, watering, or redness. Flush eyes with plenty of water.	No data available
INHALATION (Breathing)	No significant irritation expected. Possible mechanical irritation. Possible irritation of respiratory tract. May aggravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumonitis (lung inflammation), coughing, and shortness of breath.
INGESTION (Swallowing)	No significant health hazards expected. If large quantities are ingested, or discomfort occurs, seek medical attention.	No data available
SKIN	First aid is not normally required. May be abrasive and mildly irritating. Prolonged or repeated contact may cause skin irritation or dermatitis in susceptible individuals.	No data available

### SECTION 5 - FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Dry chemical type preferred. Carbon dioxide, foam, water spray, sand, or earth is also recommended.
SPECIFIC PRECAUTIONS AND INSTRUCTIONS FOR FIRE FIGHTERS	Use washdown and spread out method. For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. If the potential hazard is unknown or in enclosed or confined areas, self-contained breathing apparatus should be worn. Cool equipment exposed to fire with water, if it can be done with minimal risk.
SPECIFIC HAZARDS (Unusual Fire & Explosion Hazards)	This material may burn, but will not ignite readily. When water is used to extinguish a fire in a confined storage space there is the possibility of a steam explosion. Whenever possible, the burning coke in a confined storage space should be removed and the material drenched in an open area to extinguish fire. <b>Under certain conditions, the dust may be a potential explosion hazard.</b>
SPECIFIC HAZARDS	Typical Decomposition Products: carbon oxides (CO/CO <sub>2</sub> ), sulfur oxides and metal oxides.

# Safety Data Sheet

## Calcined Petroleum Coke

Page 2 of 4

Issued 04/14/2016

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

<b>PERSONAL PRECAUTIONS:</b>	Petroleum coke is combustible. Avoid heat and flames. Wash thoroughly after clean up.	<b>EMERGENCY PROCEDURES:</b>	Minimize formation of dust.
<b>PROTECTIVE EQUIPMENT:</b>	Wear eye protection and gloves. If excessive dust, use a NIOSH approved respirator.	<b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:</b>	Contain and remove by mechanical means (scoop, sweep or vacuum). Prevent spilled material from entering sewers, storm drains, or other unauthorized treatment drainage systems and natural waterways.

### SECTION 7 - HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING:</b>	No special requirements. Wash thoroughly after handling. Practice good personal hygiene.	<b>CONDITIONS FOR SAFE STORAGE (including any incompatibles)</b>	No special requirements; however, material should be stored to minimize dust formation. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits.
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### SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

ACGIH*	TLV (8-hr TWA)**	3 mg/ M3 as Respirable Fraction	10 mg/M3 Total Dust
OSHA*** 1910.1000	PEL **** (8-hr TWA)**	5 mg/M3 as Respirable Fraction	15 mg/M3 Nuisance Dust
State, local or other agencies may have established more stringent limits. Consult local agencies for further information.			
* ACGIH = American Conference of Governmental Industrial Hygienists		*** OSHA = Occupational Safety and Health Administration	
** TLV-TWA = Threshold Limit Value-Time Weighted Average		**** PEL = Permissible Exposure Limit	
ENGINEERING CONTROLS	Mechanically ventilate the work environment to reduce dust concentration and to maintain normal atmospheric oxygen levels.		
EYE PROTECTION	Approved eye protection, such as safety glasses or goggles, to safeguard against potential eye contact is recommended.		
RESPIRATORY PROTECTION	Appropriate respirator depends upon the type and magnitude of exposure. A NIOSH/MSHA approved dust respirator (i.e., type 95 [N or P] particulate filter) may be used under conditions where airborne concentrations are expected to exceed exposure limits for dust. Use a positive pressure air respirator, if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.		
SKIN PROTECTION	Not required. However, it is considered good practice to wear gloves when handling.		
OTHER PROTECTIVE CLOTHING OR EQUIPMENT	Recommend using good personal hygiene practices and a clean source of water for flushing eyes and skin.		

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE</b>	Irregular, steel gray to black, granular solid.	<b>ODOR</b>	May have slight petroleum odor.
<b>ODOR THRESHOLD</b>	Not determined	<b>pH</b>	Not applicable
<b>MELTING POINT/ FREEZING POINT</b>	Not applicable	<b>INITIAL BOILING POINT AND BOILING RANGE</b>	Not applicable
<b>FLASH POINT</b>	Not determined	<b>EVAPORATION RATE</b>	Not applicable
<b>FLAMMABILITY</b>	Not determined	<b>UPPER/ LOWER FLAMMABILITY OR EXPLOSIVE LIMITS</b>	Upper NA% Lower NA%
<b>VAPOR PRESSURE</b>	Not applicable	<b>RELATIVE DENSITY (water = 1)</b>	0.72 - 1.28
<b>SOLUBILITY (in water)</b>	Insoluble	<b>PARTITION COEFFICIENT: n-octanol/ water</b>	Not applicable

**Safety Data Sheet**  
**Calcined Petroleum Coke**

Page 3 of 4

Issued 04/14/2016

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<b>AUTO-IGNITION TEMPERATURE</b>	670 C (1,238 F)	<b>DECOMPOSITION TEMPERATURE</b>	Not determined
<b>VISCOSITY</b>	Not applicable		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>REACTIVITY</b>	Finely ground petroleum coke dust may become flammable or explosive.	<b>CHEMICAL STABILITY</b>	Stable
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	None known	<b>CONDITIONS TO AVOID</b>	Avoid accumulations of finely ground dust.
<b>INCOMPATIBLE MATERIALS</b>	Incompatible with strong oxidizing agents, perchlorates, peroxides, nitric acid, especially when heated.	<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	In the event of a fire, products of combustion may include carbon monoxide, carbon dioxide, sulfur dioxide, various hydrocarbons and smoke. There are no hazardous decomposition products during recommended handling and storage.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**HEALTH HAZARDS** Avoid contact with eyes. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS	ACUTE	CHRONIC
<b>EYE CONTACT</b>	No significant irritation expected. Possible abrasive mechanical irritation, dust may cause stinging, watering, or redness. Flush eyes with plenty of water.	No data available
<b>INHALATION (Breathing)</b>	No significant irritation expected. Possible mechanical irritation. Possible irritation of respiratory tract. May aggravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumonitis (lung inflammation), coughing, and shortness of breath.
<b>INGESTION (Swallowing)</b>	No significant health hazards expected. If large quantities are ingested, or discomfort occurs, seek medical attention.	No data available
<b>SKIN</b>	First aid is not normally required. May be abrasive and mildly irritating. Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals.	No data available
<b>CARCINOGENICITY (NTP)</b>	The National Toxicology Program (NTP) has not identified calcined petroleum coke as known or anticipated carcinogen.	
<b>CARCINOGENICITY (IARC)</b>	The International Agency for Research on Cancer (IARC) has not identified calcined petroleum coke as a probable, possible or confirmed human carcinogen.	
<b>CARCINOGENICITY (OSHA)</b>	The Occupational Safety and Health Administration (OSHA) has not identified calcined petroleum coke as a carcinogen or potential carcinogen.	

**SECTION 12 - ECOLOGICAL INFORMATION**

<b>ECOTOXICITY</b>	Calcined petroleum coke has a low potential to cause adverse effects on the aquatic and terrestrial environments.
<b>PERSISTENCE AND DEGRADABILITY</b>	Calcined petroleum coke does not readily degrade.
<b>BIOACCUMULATIVE POTENTIAL</b>	Calcined petroleum coke has a low bioaccumulative potential.
<b>MOBILITY IN SOIL</b>	Calcined petroleum coke is non-reactive and mobility in soil is low.
<b>OTHER ADVERSE EFFECTS</b>	None known

# Safety Data Sheet

## Calcined Petroleum Coke

Page 4 of 4

Issued 04/14/2016

### SECTION 13 - DISPOSAL CONSIDERATIONS

<b>DISPOSAL</b>	This material, if discarded in the same form as the product, is not a RCRA "listed" or "characteristic" hazardous waste. The material may be processed by an approved recycler, or disposed of at an approved waste disposal facility. Method of disposal selected is subject to compliance with applicable federal, state and local laws and regulations and product characteristics at the time of disposal.
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### SECTION 14 - TRANSPORT DISPOSAL CONSIDERATIONS

<b>UN NUMBER</b>	Not applicable. Not regulated by DOT/ ICAP/ IATA	<b>UN PROPER SHIPPING NAME</b>	Not applicable. Not regulated by DOT/ ICAP/ IATA
<b>TRANSPORT HAZARD CLASS</b>	Not applicable. Not regulated by DOT/ ICAP/ IATA	<b>PACKING GROUP</b>	Not applicable. Not regulated by DOT/ ICAP/ IATA
<b>ENVIRONMENTAL HAZARDS</b>	Calcined petroleum coke is not a marine pollutant.		
<b>TRANSPORTATION IN BULK</b>	Hot calcined petroleum coke is regulated when loading cargo vessels, if the coke temperature exceeds 130F. (See 46 CFR 148.10).		
<b>SPECIAL PRECAUTIONS</b>	See the comment above for Transportation in Bulk.		

### SECTION 15 - REGULATORY INFORMATION

SARA 311/312	Acute: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fire: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reactive <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Chronic: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pressure: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
SARA 313	This material contains no chemicals, above the de minimis levels, subject to the reporting requirements of SARA 313 and 40 CFR 372		
EPA (CERCLA) REPORTABLE QUANTITY	No		
US TSCA Chemical Inventory Section 8(b)		This product is listed on the TSCA Inventory	
Country or Region	On inventory (yes/no)		
Canada (DSL)	Yes		
Europe (EINECS)	Yes		
Australia (AICS)	Yes		
China (IECSC)	Yes		
Japan (ENCS)	No		
Korea (ECL)	Yes		
Philippines (PICCS)	Yes		
New Zealand	No		
REACH Registration: Calcined petroleum coke is exempt from the registration requirements of the European chemical policy Registration, Evaluation, and Authorization of Chemicals (REACH) per Annex V, Exemptions from the Obligation to Register in Accordance with Article 2(7)(b), Exemption 10.			
IMSBC Section 4.2 Declaration	Calcined petroleum coke is not "Harmful to the Marine Environment".		

### SECTION 16 - DOCUMENTARY INFORMATION

<b>ISSUE DATE</b>	April 14, 2016
<b>ORIGINAL ISSUE DATE</b>	February 12, 2010
<b>IDENTIFICATION</b>	Calcined Petroleum Coke
<b>REVISION No.</b>	11

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