

SAFETY DATA SHEET

1. Identification

Product identifier	Calcined Petroleum Coke
Other means of identification	
Chemical name	Coke (Petroleum) Calcined
CAS number	64743-05-1
Synonyms	Calcinat K * Calcinat N * CarboCoke * PetCoke * Calcined Petroleum Coke
Recommended use	Mainly as carbon source for aluminum and other industries.
Recommended restrictions	None known.
Distributor information	
Company Name	Harry R. Defler Corp
Address	4446 Main St. 2nd floor Buffalo, NY 14226
Telephone number	716-839-3727
E-mail	Office@Defler.com
Emergency telephone number	US: 1-800-222-1222

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The substance does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Substances			
Chemical name	Common name and synonyms	CAS number	%
Calcined petroleum coke		64743-05-1	> 99

All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (l).

Composition comments This product may contain de minimum quantity (<0.5%) of anti dust agents that are not classified under GHS.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Normal skin contact is not known to cause a significant health effect. Particles should be periodically washed off of skin with soap and water.
Eye contact	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

High concentrations of dust may form combustible dust concentrations in air. During fire, gases hazardous to health may be formed such as: Carbon oxides (CO_x). Sulfur Oxides (SO_x).

Most reported coke fires have occurred when produced calcined coke is inadequately cooled and stored in a manner that allows the movement of air through the coke bed. May burn if exposed to temperatures greater than 1290°F (700°C). Should a fire occur, its location and extent should be determined as quickly as possible. The best procedure is to dig out and remove the coke in the heated zone. The hot coke should be drenched with water as it is exposed. Caution should be exercised when using water or foam as frothing may occur, especially if directed onto containers of hot or burning material.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use water spray to cool unopened containers.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Avoid breathing dust/fume/vapors. For personal protection, see section 8 of the SDS. Local authorities should be advised if significant spillages cannot be contained. Avoid contact with eyes.

Methods and materials for containment and cleaning up

Material is not toxic and can be picked up by sweeping, shoveling, or vacuuming.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. Do not enter storage areas and confined spaces unless adequately ventilated. Avoid breathing dust. Wash thoroughly after handling. Practice good housekeeping.

Conditions for safe storage, including any incompatibilities

Store away from incompatible materials (see Section 10 of the SDS). Must not be loaded on a cargo vessel when temperature exceed 107°C or 225°F.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA
Components

	Type	Value	Form
Calcined petroleum coke (CAS 64743-05-1)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

ACGIH Components	Type	Value	Form
Calcined petroleum coke (CAS 64743-05-1)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines	Maintain airborne levels below recommended exposure limits.		
Appropriate engineering controls	Dust should be controlled at point of operation.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Wear safety glasses with side shields (or goggles).		
Skin protection			
Hand protection	Not available.		
Other	Wear suitable protective clothing.		
Respiratory protection	In order to maintain exposures below the acceptable limits from the Hazard Identification Section, select appropriate NIOSH-approved protection where necessary to maintain exposures below the acceptable limits in the Health Hazard Section. Proper respiratory selection should be determined by adequately trained personnel and based on the contaminant(s), the degree of potential exposure and published respirator protection factors.		
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.		
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		
	Excessive concentrations of calcined petroleum coke may reduce visibility, cause unpleasant deposits in the eye, ears, and nasal passages, or irritate the skin or mucous membranes by mechanical means. However, normal workplace exposure has not been determined to cause a significant health effect. Calcined petroleum coke, as with many petroleum products, may cause minor skin, eye, or lung irritation, but good hygienic practices can minimize these effects.		

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid.
Color	Dark gray to black.

Odor Odorless.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point None.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 1

Solubility(ies)	
Solubility (water)	Not soluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 1292°F (> 700°C)
Decomposition temperature	> 2400.8°F (> 1316°C)
Viscosity	Not available.
Other information	
Bulk density	50-55 lb /ft.3
Density	0.80 - 1.00 g/cm3
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep material from extreme heat and open flame. Avoid generation of dust. Contact with incompatible materials. Avoid temperatures exceeding the decomposition temperature. May burn at temperature exceeding 1290°F or 700°C.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system.
Skin contact	Dust or powder may irritate the skin.
Eye contact	Dust may irritate the eyes.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics	Dusts may irritate the respiratory tract, skin and eyes.
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Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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Carcinogenicity	Not classifiable as to carcinogenicity to humans.
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IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
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Specific target organ toxicity - single exposure	Not classified.
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Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity Freshwater. Acute exposure to petroleum coke did not result in adverse effects in fathead minnow or daphnia at loading rate 1000 mg/l. Slight growth inhibition was found in freshwater algae at tested loading rate (NOELR <1000 mg/l).

Terrestrial: Petroleum coke was not found to have adverse effects in earthworms or terrestrial plants at 1000 mg/l.

Persistence and degradability Petroleum coke exhibits high persistence (P3) in soil as degradation is not expected to be a significant fate in organisms or the environment.

Bioaccumulative potential Low bioaccumulation potential as negligible water solubility restricts route of exposure in the aquatic environment (B1).

Mobility in soil Mobility is Insignificant in petroleum coke due to negligible water solubility and vapor pressure. May Incorporate within soil for extended periods of time.

Other adverse effects None. Attempts to quantify unalkylated PAH, sulfur, and metal leachate values remained below detection limits under freshwater test conditions.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.

SARA 304 Emergency release notification Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

For more information go to www.P65Warnings.ca.gov. California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 11-February-2018

Revision date -

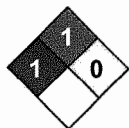
Version # 01

Further information Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings



Disclaimer

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. It relates specifically to the product designated and may not be valid for the product when used with any other materials or products or in a particular process.

The information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee, express or implied, is made as to its accuracy, reliability or completeness. It is the users responsibility to review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with applicable hazard communication and GHS requirements. We do not accept responsibility for any-loss or damage which may occur from the use of this information.