



MATERIAL SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Petroleum Coke, Uncalcined

Product No.: 63-AS6

Synonyms: Pet coke, Green Coke, Delayed Coke, Thermocracked Coke

Molecular Formula: Not applicable/Mixture

Manufacturer Name:

Sinclair Oil Corporation

P.O. Box 30825

Salt Lake City, Utah 84130

Emergency Telephone:

CHEMTREC – (800) 424-9300 or (703) 527-3887

Non-emergency Telephone:

EHS Hotline: (801) 524-2740

(888) 340-3466

Intended Use: Fuel Coke

2 HAZARDS IDENTIFICATION

Emergency Overview

Physical State: Solid (particles or lumps)

Color: Black

Odor: Faint hydrocarbon

CAUTION!

May cause eye, skin and respiratory tract irritation.

Potential Health Effects

Inhalation: May cause respiratory tract irritation. Exposure may cause irritation, sore throat, cough, and difficulty breathing.

Eye Contact: May cause eye irritation. Exposure may cause tearing, redness, and discomfort.

Skin Contact: May cause skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis. The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin.

Ingestion: Not expected to be an ingestion hazard. Ingestion may cause nausea and other systemic effects.

Chronic Health Effects: Long term exposure to this product may cause damage to the lungs, liver and kidneys.

Target Organ(s): | Eye | Skin | Respiratory system | Lung | Liver | Kidney |

Potential Physical / Chemical Effects: This product will ignite and burn at temperatures exceeding the flashpoint.

OSHA Regulatory Status: This product is not hazardous according to OSHA 29 CFR 1910.1200.

Environment: The product has not been tested for environmental effects.

3 COMPOSITION / INFORMATION ON INGREDIENTS

General Information: This product is used to produce fuel coke.

Chemical Name	CAS-No.	Concentration*
Thermocracked coke, green	64741-73-3	> 99%
Polycyclic aromatic hydrocarbons	mixture	< 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4 FIRST AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for up to 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin Contact: In case of contact, wash with soap and water. Get medical attention if symptoms occur.

Ingestion: If swallowed, get medical attention if symptoms occur.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable Extinguishing Media: None.

Special Fire Fighting Procedures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Unusual Fire & Explosion Hazards: This product will ignite and burn at temperatures exceeding the flashpoint.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, hydrocarbons, sulfur oxides

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment (See Section 8).

Spill Cleanup Methods: Sweep up and place in a clearly labeled container for chemical waste.

Environmental Precautions: Prevent runoff from entering drains, sewers or streams. Dike for later disposal.

Notification Procedures: Treat as an oil spill. Inform authorities if large amounts are involved.

7	HANDLING AND STORAGE
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Handling: Personal Precautionary Measures: Wear appropriate personal protective equipment. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from strong oxidizing agents. Minimize dust generation and accumulation.

Storage: Keep container closed. Do not store near heat sources or expose to high temperatures. Store away from incompatible materials.

8	EXPOSURE CONTROLS / PERSONAL PROTECTION
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Exposure Limits:

Chemical Name	Source	Type	Exposure Limits	Notes
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	ACGIH	TLV-TWA	10 mg/m ³	--
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	ACGIH	TLV-TWA	3 mg/m ³	--
Particulates not otherwise regulated, respirable fraction	OSHA Z-1	PEL	5 mg/m ³	--
Particulates not otherwise regulated, total dust	OSHA Z-1	PEL	15 mg/m ³	--
Inert or nuisance dust, respirable fraction	OSHA Z-3	TWA	5 mg/m ³	--
Inert or nuisance dust, total dust	OSHA Z-3	TWA	15 mg/m ³	--
Particulates not otherwise regulated, respirable fraction	California OELS	TWA	5 mg/m ³	--
Particulates not otherwise regulated, total dust	California OELS	TWA	10 mg/m ³	--
Particulate not otherwise regulated, respirable particulate	Alberta OELS	TWA	3 mg/m ³	--
Particulate not otherwise regulated, total particulate	Alberta OELS	TWA	10 mg/m ³	--
Particles (insoluble or poorly soluble) not otherwise classified (PNOC) (respirable fraction)	British Columbia OELS	TWA	3 mg/m ³	--

Particles (insoluble or poorly soluble) not otherwise classified (PNOC) (total dust)	British Columbia OELS	TWA	10 mg/m ³	--
Particles (insoluble or poorly soluble) not otherwise specified (PNOS): inhalable particulate	Ontario OELS	TWA	10 mg/m ³	--
Particles (insoluble or poorly soluble) not otherwise specified (PNOS): respirable particulate	Ontario OELS	TWA	3 mg/m ³	--
Non-classified dusts, total dust	Quebec OELS	TWA	10 mg/m ³	--

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne contaminants below established exposure limits.

Respiratory Protection: Not required under normal conditions of use. If engineering controls do not keep airborne concentrations below acceptable levels, wear a NIOSH-approved respirator. Contact health and safety professional for specific information.

Eye Protection: Wear approved safety goggles.

Hand Protection: Wear chemical-resistant gloves. Contact health and safety professionals for additional information.

Skin Protection: Wear disposable coveralls, lab coat, or apron to prevent skin contact.

Hygiene Measures: 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.

Environmental Exposure Controls: The environmental manager must be informed of all major spillages.

9	PHYSICAL AND CHEMICAL PROPERTIES
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Color: Black

Odor: Faint hydrocarbon

Odor Threshold: No data available

Physical State: Solid (particles or lumps)

pH: Not applicable

Melting Point: No data available

Freezing Point: Not applicable

Boiling Point: Not applicable

Flash Point: Not applicable; combustible solid

Evaporation Rate: Not applicable

Flammability Limit - Upper (%): No data available

Flammability Limit - Lower (%): No data available

Vapor Pressure: Not applicable
Vapor Density (Air=1): Not applicable
Specific Gravity: 1.00 – 1.80 (at 20°C (68°F))
Solubility in Water: Insoluble
Solubility (Other): No data available
Partition Coefficient (n-Octanol/water): Not applicable
Auto-ignition Temperature: No data available.
Decomposition Temperature: No data available.
Viscosity: Not applicable
Percent Volatile: Not applicable

10	STABILITY AND REACTIVITY
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Stability: Stable under normal temperature conditions

Conditions to Avoid: Heat, sparks, open flames

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products:

At Elevated Temperatures: Carbon dioxide, carbon monoxide, hydrocarbons, sulfur oxides

Possibility of Hazardous Reactions: Will not occur.

11	TOXICOLOGICAL INFORMATION
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Product Information

Acute Toxicity: No toxicity data available.

Other Acute: May cause eye, skin and respiratory irritation. Short term exposure may cause respiratory irritation, nausea, vomiting, sore throat, cough, difficulty breathing, and congestion.

Chronic Toxicity: The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin. Long term exposure to this product may cause damage to the lungs, liver and kidneys.

Listed Carcinogens: None.

12	ECOLOGICAL INFORMATION
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The product has not been tested for environmental effects.

13	DISPOSAL CONSIDERATIONS
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General Information: Dispose in accordance with applicable federal, state, and local regulations.

Disposal Methods: No specific disposal method required.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14	TRANSPORT INFORMATION
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DOT: Not Regulated

TDG: Not Regulated

IATA: Not Regulated

IMDG: Not regulated for non-bulk quantities.

Special Information: Petroleum coke (calcined or uncalcined) is regulated in bulk quantities by IMO under BC code N° 040, IMO Class MHB. This product must not be loaded in cargo vessels when temperatures exceed 55°C (131°F).

15	REGULATORY INFORMATION
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Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: Non-controlled

Inventory Status

This product or one or more component(s) are not listed on the following inventories: TSCA, DSL

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4):

Component	Reportable Quantity
Polycyclic aromatic hydrocarbons	--

SARA Title III

Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not listed

Section 311/312 (40 CFR 370): Not regulated

Section 313 Toxic Release Inventory (40 CFR 372): Not listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not listed

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): Not listed

Drug Enforcement Act: Not regulated.

TSCA:

TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Not regulated.

TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt. E): Not regulated

TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated

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

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Not listed

Massachusetts Right-To-Know List: Not listed

Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): Not listed

Minnesota Hazardous Substances List: Not listed

New Jersey Right-To-Know List: Not listed

Pennsylvania Right-To-Know List: Not listed

Rhode Island Right-To-Know List: Not listed

16	OTHER INFORMATION
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HAZARD RATINGS

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	1	1	0	NONE

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	1	1	0	E

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe *- Chronic Health Effect

Personal Protection codes: G - Safety Glasses, Gloves, Vapor Respirator

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

Issue Date: 19 June 2008

Supersedes Date: December 2005

SDS No.: 63-AS6

Disclaimer: THIS PRODUCT MATERIAL SAFETY DATA SHEET PROVIDES HEALTH AND SAFETY INFORMATION. THE PRODUCT SHOULD BE USED IN APPLICATIONS CONSISTENT WITH THIS PRODUCT LITERATURE. FOR ANY OTHER USES, EXPOSURES SHOULD BE EVALUATED SO THAT APPROPRIATE HANDLING PRACTICES AND TRAINING PROGRAMS CAN BE ESTABLISHED TO ENSURE SAFE WORKPLACE OPERATIONS.

THIS MATERIAL SAFETY DATA SHEET IS PROVIDED IN GOOD FAITH AND MEETS THE REQUIREMENTS OF THE HAZARDOUS COMMUNICATION PROVISIONS OF SARA TITLE III AND 29 CFR 1910.1200(g) OF THE OSHA REGULATIONS. THE ABOVE INFORMATION IS BASED ON REVIEW OF AVAILABLE INFORMATION SINCLAIR BELIEVES IS RELIABLE AND IS SUPPLIED FOR INFORMATIONAL PURPOSES ONLY. SINCLAIR DOES NOT GUARANTEE ITS COMPLETENESS OR ACCURACY. SINCE CONDITIONS OF USE ARE OUTSIDE THE CONTROL OF SINCLAIR, SINCLAIR DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, AND ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM THE USE OF THE ABOVE DATA. NOTHING HEREIN IS INTENDED TO PERMIT INFRINGEMENT OF VALID PATENTS AND LICENSES.