

# SAFETY DATA SHEET

## Bituminous Coal

Prepared according to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Bituminous Coal  
**SYNONYMS:** Bituminous Coal  
**CAS NUMBER:** None (Bituminous Coal is a naturally occurring mineral)  
**U.N. NUMBER:** None  
**U.N. DANGEROUS GOODS CLASS:** Non-Regulated Material  
**SUPPLIER/MANUFACTURER'S NAME:**  
**ADDRESS:**  
**EMERGENCY PHONE:**  
**BUSINESS PHONE:**  
**WEB SITE:**  
**DATE OF PREPARATION:**  
**DATE OF LAST REVISION:**

### SECTION 2 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

**Product Description:** This product is irregular, rectangular-shaped chunks or particles, dense, grayish-black color with a slight, minimal dank odor.

**Health Hazards:** Dust may cause mechanical irritation to eyes. Prolonged exposure to dust from this product may cause skin and respiratory tract irritation. Potential lung damage from long term coal dust exposure.

**Flammability Hazards:** This product is may be Flammable when exposed to temperatures greater than 260°F

**Reactivity Hazards:** Not reactive

**Environmental Hazards:** The environmental effects of this product are not expected to cause significant adverse effects.

**Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

US DOT SYMBOLS

CANADA (WHMIS) SYMBOLS

EUROPEAN and (GHS) Hazard Symbols

Non-Regulated

Not Controlled



Signal Word: **Warning!**

#### EU LABELING AND CLASSIFICATION:

**Classification of the substance or mixture according to Regulation (EC) No1272/2008 Annex 1**

**Bituminous Coal Bituminous Coal, a naturally occurring mineral**

**EC# 235-111-5 This substance is not classified in the Annex I of Directive 67/548/EEC**

**EC# 231-791-2 This substance is not classified in the Annex I of Directive 67/548/EEC**

Substances not listed either individually or in group entries must be self classified.

#### Hazard Determining Components:

Fixed Carbon

#### GHS Hazard Classification(s):

Acute Inhalation Toxicity Category 4

#### Hazard Statement(s):

H320: Causes eye irritation

H335: May cause respiratory irritation

#### Precautionary Statement(s):

P260: Do not breath dust/fume/gas/mist/vapors/spray

P264: Wash hands thoroughly after handling

P271: Use only in well ventilated area.

P281: Use personal protective equipment as required

#### EU HAZARD CLASSIFICATION PER DIRECTIVE 1999/45/EC:

[Xi] Irritant

#### Risk Phrases:

R36/37: Irritating to eyes and respiratory system

#### Safety Phrases:

S22: Do not breathe dust

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

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### HEALTH HAZARDS OR RISKS FROM EXPOSURE:

#### ACUTE:

EYE Not identified as an irritant. High dust concentrations may cause mechanical irritation.

SKIN No adverse effects expected.

INGESTION No adverse effects expected.

INHALATION Temporary discomfort to upper respiratory tract may occur due to inhalation of high dust levels well above the 8 hour occupational exposure limit. Long term inhalation of coal dust may lead to pneumoconiosis.

#### CHRONIC:

Long term inhalation of coal dust may lead to pneumoconiosis.

**TARGET ORGANS:** ACUTE: Eye, Respiratory System

CHRONIC: Respiratory System

### SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	HAZARD CLASSIFICATION; RISK PHRASES
Bituminous Coal	Not Listed	Not Listed in ESIS	Not Listed	100%	HAZARD CLASSIFICATION: SELF CLASSIFIED: [Xi] Irritant RISK PHRASES: R36/37
<b>INGREDIENT COMPOSITION OF BITUMINOUS COAL</b>					
Fixed Carbon	12069-32-8	235-111-5	Not Listed	70 - 75%	HAZARD CLASSIFICATION: SELF CLASSIFIED: [Xi] Irritant RISK PHRASES: R36/37
Ash	Not Listed	Not Listed in ESIS	Not Listed	7-15%	HAZARD CLASSIFICATION: SELF CLASSIFIED: [Xi] Irritant RISK PHRASES: R36/37
Moisture	7732-18-5	231-791-2	Not Listed	1 - 4%	HAZARD CLASSIFICATION: None RISK PHRASES: None
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					

**NOTE:** ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

### SECTION 4 - FIRST-AID MEASURES

**EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

**SKIN CONTACT:** Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder contaminated clothing before re-use.

**INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing difficulty continues.

**INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Pre-existing respiratory problems may be aggravated by exposure to this product.

**RECOMMENDATIONS TO PHYSICIANS:** Treat symptoms and reduce over-exposure.

**NOTE:** The principal health hazard associated with coal occurs during its mining and transport. Coal workers' pneumoconiosis (CWP) can occur in miners after as little as 15 years of excessive inhalation of respirable coalmine dust. Respirable quartz particles and free silica may be co-implicated. Coal dust is deposited in the lungs where its site of action is the lung parenchyma, lymph nodes and hila. The severity of the disease is directly related to the amount of coal dust in the lungs. In the simple stages, the disease is detectable by x-ray as round, irregular "macules" of 1-5 mm. This stage typically does not change lung function or shorten life.

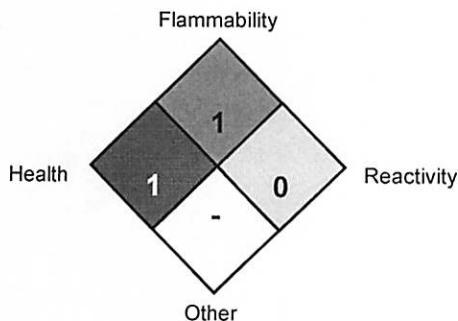
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## SECTION 5 - FIRE-FIGHTING MEASURES

**FLASH POINT:** Not Applicable – Combustible solid  
**AUTOIGNITION TEMPERATURE:** Not Applicable  
**FLAMMABLE LIMITS (in air by volume, %):** Lower (LEL): Not Applicable      Upper (UEL): Not Applicable  
**FIRE EXTINGUISHING MATERIALS:** Water spray (fog), foam, or carbon dioxide (CO<sub>2</sub>), are the best extinguishing medium for fires. Do not use water stream.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** It may not be noticed that the product is burning unless it is stirred and sparks are and sparks are apparent. Material that has been on fire should be watched closely to insure that no smoldering material is present.  
**Dust Explosion Potential:** When high dust concentrations exist and a significant energy source is applied tests have determined that dust clouds and layers of 200 mesh (0.075mm) coal dust and an air mixture can explode. Minimum Ignition Temperature cloud > 1200° F (649° C) Minimum Ignition Temperature layer > 350° F (177° C)  
Explosion Sensitivity to Mechanical Impact: Not Sensitive.  
Explosion Sensitivity to Static Discharge: Not Sensitive.  
**SPECIAL FIRE-FIGHTING PROCEDURES:** Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

### NFPA RATING SYSTEM



### HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			1
FLAMMABILITY HAZARD (RED)			1
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Personnel should be trained for spill response operations.  
**SPILLS:** Contain spill if safe to do so. In order to minimize dust, spills should be removed by vacuuming, or by lightly spraying with water and sweeping the mixture into a suitable container Do not dry sweep. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

## SECTION 7 - HANDLING and STORAGE

**WORK PRACTICES AND HYGIENE PRACTICES:** Avoid creating dust. Clean up all spills promptly. Wash exposed skin daily. Wash work clothes daily. Avoid breathing dusts generated by this product. Use in a well-ventilated location.

**STORAGE AND HANDLING PRACTICES:** No special storage requirements

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## SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

### EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA	WEEL
Bituminous Coal Coal Dust	Not Listed	2 mg/m <sup>3</sup> respirable fraction <5% SiO <sub>2</sub>	2.5 mg/m <sup>3</sup> respirable fraction <5% SiO <sub>2</sub>	2 mg/m <sup>3</sup> respirable fraction <5% SiO <sub>2</sub>
Fixed Carbon	12069-32-8	Not Listed	Not Listed	Not Listed
Ash	Not Listed	10 mg/m <sup>3</sup> Total Dust	15 mg/m <sup>3</sup> Total Dust	10 mg/m <sup>3</sup> Total Dust
Moisture	7732-18-5	Not Listed	Not Listed	Not Listed

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.*

**RESPIRATORY PROTECTION:** Maintain airborne contaminant concentrations below guidelines listed above, if applicable.

If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

**EYE PROTECTION:** Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

**SKIN PROTECTION:** Use appropriate gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

## SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

**PHYSICAL STATE:**

Solid

**APPEARANCE & ODOR:**

This product is irregular, rectangular-shaped chunks or particles, dense, grayish-black color with a slight dank odor.

**ODOR THRESHOLD (PPM):**

None

**VAPOR PRESSURE (mmHg):**

Not Applicable

**DENSITY:**

Not Applicable

**EVAPORATION RATE (nBuAc = 1):**

Not Applicable

**BOILING POINT (F°):**

Not Applicable

**MELTING POINT (F°):**

Not Available

**pH:**

Not Applicable

**SPECIFIC GRAVITY 20°C: (WATER =1)**

1.13

**SOLUBILITY IN WATER (%)**

Non-Soluble

## SECTION 10 - STABILITY and REACTIVITY

**STABILITY:** Product is stable

**DECOMPOSITION PRODUCTS:** Releases carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), sulfur monoxide (SO), sulfur dioxide (SO<sub>2</sub>), and Methane.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** Strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Incompatible materials, high temperatures or flames

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## SECTION 11 - TOXICOLOGICAL INFORMATION

**TOXICITY DATA:** Toxicity data is not available for this product:

No LD50 Data Available

**SUSPECTED CANCER AGENT:**

Coal contains a small amount of Crystalline Silica (Quartz).

IARC has classified Silica (Quartz) as a Group 1, "carcinogenic to humans"

The National Toxicology Program, (NTP) has listed Silica (Quartz) as a (NTP-K),

*known to be human carcinogen*

The Occupational Safety and Health Administration, (OSHA) has not classified

Silica (Quartz) as to its carcinogenicity.

**IRRITANCY OF PRODUCT:** Contact with this product can be irritating to respiratory system and eyes.

**SENSITIZATION OF PRODUCT:** This product is not considered a sensitizer.

**REPRODUCTIVE TOXICITY INFORMATION:** No information concerning the effects of this product and its components on the human reproductive system.

## SECTION 12 - ECOLOGICAL INFORMATION

**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.**

**ENVIRONMENTAL STABILITY:** No Data Available

**EFFECT OF MATERIAL ON PLANTS or ANIMALS:** No Data Available

**EFFECT OF CHEMICAL ON AQUATIC LIFE:** No Data Available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**PREPARING WASTES FOR DISPOSAL:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

**RCRA WASTE CODE:** None listed

**EU WASTE CODE:** Not Listed

## SECTION 14 - TRANSPORTATION INFORMATION

**US DOT; IATA; IMO; ADR:**

**THIS PRODUCT IS NOT CLASSIFIED AS DANGEROUS GOODS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.**

**PROPER SHIPPING NAME:** Non-regulated Material

**HAZARD CLASS NUMBER and DESCRIPTION:** None

**UN IDENTIFICATION NUMBER:** None

**PACKING GROUP:** None

**DOT LABEL(S) REQUIRED:** None

**NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004):** None

**MARINE POLLUTANT:** This products ingredients that are not classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

**TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:**

This product is not classified as Dangerous Goods, per regulations of Transport Canada.

**INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):**

This product is not classified as Dangerous Goods, by rules of IATA:

**INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:**

This product is not classified as Dangerous Goods by the International Maritime Organization.

**EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):**

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.  
Harmonized Tariff Code 2701.12.0050

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## SECTION 15 - REGULATORY INFORMATION

### UNITED STATES REGULATIONS

**SARA REPORTING REQUIREMENTS:** This product ingredients are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**TSCA:** Not all components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

**SARA 311/312:**

Acute Health: Yes                      Chronic Health: No                      Fire: No                      Reactivity: No

**U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

**U.S. CERCLA REPORTABLE QUANTITY (RQ):** None

**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** This product does not contain ingredients that are on the California Proposition 65 lists.

### CANADIAN REGULATIONS:

**CANADIAN DSL/NDL INVENTORY STATUS:** All of the components of this product are on the DSL Inventory

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** No component of this product is on the CEPA First Priorities Substance Lists.

**CANADIAN WHMIS CLASSIFICATION and SYMBOLS:** This product is categorized as Not Controlled, as per the Controlled Product Regulations

### EU LABELING AND CLASSIFICATION:

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.

### AUSTRALIAN INFORMATION FOR PRODUCT:

**AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS:** Not all components of this product are listed on the AICS.

**STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS:** Not applicable.

### JAPANESE INFORMATION FOR PRODUCT:

**JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS:** The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

### INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:	Listed or Exempt
Australian Inventory of Chemical Substances (AICS):	Listed or Exempt
Korean Existing Chemicals List (ECL):	Listed or Exempt
Japanese Existing National Inventory of Chemical Substances (ENCS):	Listed or Exempt
Philippines Inventory of Chemicals and Chemical Substances (PICCS):	Listed or Exempt
Swiss Giftliste List of Toxic Substances:	Listed or Exempt
U.S. TSCA:	Listed or Exempt

## SECTION 16 - OTHER INFORMATION