

MATERIAL SAFETY DATA SHEET

MSDS Preparation Date: 21-05-2015

According to instructions of our custom, **INTERNATIONAL CHARCOAL SAS** reports the Material Safety Data Sheet of coal as follows.

Section 1 - Chemical Product and Company Identification

MSDS Name	Colombian CHARCOAL	K C P
Catalog Numbers	1333-86-4	11/2/
Synonyms		191
Company Identification	INTERNATIONAL CHARCOAL SAS	8,9
Address	Calle 74 # 46-78 Of. 12 Ed. Plaza 74 Barranquilla - Colombia	MATERICA
Office Telephone	+ 57 5 3 85 40 90	
24h emergency phone	+ 57 317 4 04 26 07	

Section 2 - Composition, Information & Ingredients

General	Heterogeneous mixture of organic and inorganic materials	
Reference No.	Chemical Name N.A.	%
	Carbon (Dry)	75,16
	Volatiles (As-received)	19,78
	Water (H2O)	4,38
	Sulphur (As-received)	0,04
0,4	Ash (As-received)	3,97

Section 3 - Hazards Identification

Material Appearance	Black solid
Caution	Potential for spontaneous combustion exists if proper care is not exercised in storage. Dust might be generated if proper care is not exercised during handling and storage.
Effect on health	No anticipated harm to the people handling the coal in bulk is expected to be caused. Suitable clothing and protective equipment, Such as overalls, masks, gloves, safety hats and shoes should be used during handling and transportation

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Section 4 - First Aid Measures

Eyes	Flush with clear water until irritation subsides for 15 minutes. If irritation persists, call a physician.
Skin	Wash thoroughly the affected area with soap and water. Remove abrasive coal fines and dust from open wounds.
Ingestion	If ingested, DO NOT induce vomiting, call a physician immediately. If victim is conscious, give 2-4 glasses of milk or water.
Inhalation	If overexposed to coal dust, remove from further exposure to fresh air immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen if available, and call a physician if the problem persists.

Section 5 - Fire Fighting Measures

General Information	In case of self-ignition in storage piles, hot spots should be moved and spread several times on the ground surface with the aid of a track dozer. Afterwards, it should be compacted.		
Extinguishing Media	In case of fire, use dry chemical, carbon dioxide	e or chemical foam.	
Autoignition Temperature	>150 °F (66 °C)	100	
Flash Point	Correct according to IMO regulation.	200	
NFPA Rating	N.A.		
Explosion Limits	N.A.		

Section 6 - Accidental Release Measures

General Information	0
Spills	While recovering the product, minimize generation of dust. Avoid
20'	breathing dust and skin contact, using proper clothing and safety
	equipment. If required, ventilate the area. Keep product out of
	sewers and watercourses by diking or impounding. Advise
	authorities if product has entered or may enter sewers, watercourses
	or extensive land areas. Assure conformity with applicable

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governmental regulations.

section 7 - Handling and Storage

Handling	Minimize dust generation during handling. Use water spray under controlled conditions if required. Ensure adequate ventilation. Use product with caution near static electricity if dust concentration exists. Avoid contact of product with open flame.
Storage	Store preferably in a cool, dry, well ventilated area. Build stockpiles in layers and compact to retard acces of air into the coal and oxidation, and to reduce size segregation. If possible limit size of single piles to 100 KT. Try to use oldest coals first (FIFO). Avoid drafts of air through the piles. Monitor coal temperatur during storage.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls	Temperatur	re monitoring. Dust concentration monitoring in closed		
	areas.			
Exposure Limits	For coal dust breathable: 0.9 mg/m3 (Threshold limit value)			
Personal Protective equipment	Eyes	Safety glasses		
-0	Skin	Safety gloves.		
	Clothing	Overall		
acop,	Respirator	Use masks in case of confined/closed areas with dust.		

Section 9 - Physical & Chemical Properties

		- 100 AND		"MA an
Phisical State	Solid		0(
Appearance	Black			
Odor	Odourl	ess		- (
PH	N.A.	464		W.E.Y.
Vapur Pressure	N.A.	1/1-		1/1-1
Vapour Density	N.A.	194.4	_ 5\-	
Evaration Rate	N.A.			
Viscosity	N.A.		No.	
Boiling Point	N.A.		pm 32/1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Freezing/Melting Point	< 0 ° D	epending on	moisture content.	
Decomposition Temperature	N.A.	The state of the s		
Solubility	In wate	r, negligible.	, less than 0.1%	(8)
Specific gravity/density	0.85 - 1	.00		1 7
Molecular Formula	N.A.		0(



Molecula	ar Weight	N.A.

Section 10 - Stability & Reactivity

Chemical Stability	Stable under normal ambient temperatures. May self-heat if open piles are not properly handled.		
Conditions to avoid	Incompatible materials, ignition sources, dust concentration, excesive moisture addition, air drafts through the stockpiles.		
Incompatibilities with other materials	Alkalimetals, lead oxide, manganese oxide, dibenzoyl peroxide, iron oxide, liquid oxygen, metallic salts, molybdenum oxide, nitrobenaldehyde, potassium hydroxide, sodium hydrogen carbonate, chlorinated parafin, sodium tetrahydroborate, unsaturated oils.		
Hazardous decomposition products	Carbon monoxide and dioxide.		
Hazardous Polymerization	Not reported.		

Section 11 - Toxicological Information

Carcinogenicity /	N.A.		~ P 1	199
Epidemiology	N.A.	8		
Teratogenicity	N.A.		1 2	
Reproductive effects	N.A.			2

Section 12 – Ecological Information

Ecotoxicity	N.A.	_ \	
Environmental	Coal dusting should be mitigated by water spray under controlled conditions. Spillage into water courses should be avoided by diking or impounding.		
Physical	N.A.	A print in the print i	
Chemical	N.A.		Q P

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Other Studies	N.A.	
point 12.		7.9

Disposal Consideration		
N.A.		
Transport Information		
MATTEL		
Cargo is not classified as dangerous goods under UN1362/4.2 because it passed the United Nations Manual of Tests and Criteria (see 33.3.1.3.3) for self-heating substances		
450	352	
Regulatory Information		
Assure conformity with applicable governmental regulations.		
Additional Information		
CUNDO		
7 50	TED	
	Transport Information Cargo is not classified as da because it passed the United Nati 33.3.1.3.3) for self-heating substantive Regulatory Information Assure conformity with application	

Inspectorate, Coal Operations Marine