

MATERIALS SAFETY DATA SHEET (M.S.D.S)

1. PRODUCT IDENTIFICATION

Suppliers Name : Marketech International	Prepared by: Tracy Abundis
Address	107 Louisa Street, Port Townsend, WA 98368
Trade Name	C
Synonyms	Nanocellular Carbon (carbon aerogel, amorphous carbon; carbon; glassy carbon)
CAS Number	7440-44-0
Revision Date:	October 2001
Regular Telephone No.	(360) 379-6707
Emergency Telephone No.	(360) 379-6707

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
Carbon monoxide, carbon dioxide		Nuisance Dust Inhalation Hazard

3. PHYSICAL DATA

BOILING POINT (°F)	~4200°C	SPECIFIC GRAVITY (H ₂ O=1)	0.3 - 1.6
VAPOR PRESSURE (mm Hg)	<0.1 (20 °C)	MELTING POINT	~3800°C
SOLUBILITY IN WATER	insoluble	VAPOR DENSITY	Not Applicable
APPEARANCE AND ODOR	Black solids or powders		

4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Not Applicable	AUTO IGNITION TEMPERATURE	449°C
FLAMMABLE LIMITS IN AIR, % BY VOLUME	Lower	Not Applicable	Upper
EXTINGUISHING MEDIA	Any suitable for other materials involved.		
SPECIAL FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and protective clothing.		
UNUSUAL FIRE AND EXPLOSION HAZARD	Emits toxic fumes under fire conditions.		

5. HEALTH HAZARD INFORMATION

FIRST AID

Eyes:	Flush with water for at least 15 minutes.
Skin:	Wash thoroughly with soap and water.
Inhalation:	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion:	Seek medical advice.

NATURE OF HAZARD

Eyes:	Causes eye irritation.
Skin:	Causes skin irritation. May be harmful if absorbed through skin.
Inhalation:	Harmful if inhaled (dust or powder form). As with other fine particle dust materials, inhalation should be avoided by using a mask to filter the dust from inhaled air. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion:	May be harmful if swallowed.

EFFECTS OF OVEREXPOSURE:

Acute Overexposure:	Material is irritating to mucous membranes and upper respiratory tract.
Chronic Overexposure:	Target organ(s): lungs. To the best of our knowledge, the chemical, physical, and toxicological properties have not been completely investigated.

THRESHOLD LIMIT VALUE (TLV)

N/A

TOXICITY DATA

<u>SKIN CONTACT:</u>	Causes skin irritation.
<u>EYE CONTACT:</u>	Causes eye irritation.
<u>INHALATION:</u>	Harmful if inhaled (dust or powder form).
<u>INGESTION:</u>	May be harmful if swallowed.

SPECIAL PRECAUTIONS: AVOID INHALATION

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY	Stable.
INCOMPATIBILITY	Oxidizing Agents.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon monoxide, carbon dioxide.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION	Not applicable.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

For monoliths: Pick up solids (use gloves) and place in closed container.

For powder: Avoid inhalation of dust. Wear self-contained breathing apparatus and protective clothing. Sweep up powder and bag. Ventilate area and wash spill site.

NEUTRALIZING CHEMICALS Not applicable.

WASTE DISPOSAL METHOD

Consult local, state and federal regulations.

8. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

If material is transformed to a fine powder, it should be handled or transferred in an approved fume hood or with adequate ventilation. As with most powders, the possibility of a dust explosion exists.

Specific Personal Protective Equipment

RESPIRATORY (SPECIFY IN DETAIL) NIOSH approved air-purifying dust respirator. Any workers exposed to the low volume substance must wear a NIOSH approved respirator with an assigned protection factor (APF) of 50 for particulates during manufacturing.

EYE: Safety glasses with side shields should be worn at all times.

GLOVES: Protective gloves should be worn to prevent skin contact.

OTHER CLOTHING AND EQUIPMENT: Protective clothing should be worn to prevent skin contact.

9. SPECIAL PRECAUTIONS

Hazard Classification Information

IMO HAZARD CLASS AND NUMBER No hazard classification.

US DOT HAZARD CLASS No hazard classification.

UN NUMBER Not Applicable

US DOT IDENTIFICATION NUMBER Not applicable

Transportation and Storage

USUAL SHIPPING CONTAINERS

Polyethylene Bags

ELECTROSTATIC ACCUMULATION HAZARD
Unknown

STORAGE / TRANSPORT PRESSURE Ambient

STORAGE TRANSPORT TEMPERATURE

Ambient

LOADING / UNLOADING TEMPERATURE Ambient

VISCOSITY AT LOADING / UNLOADING TEMPERATURE Unknown

Handling and Storage Materials and Coatings

SUITABLE

UNSUITABLE

N/A

N/A

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