PowerTEC Safety Data Sheet (SDS)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE

1.1 Identification

Product identifier:
PowerTEC

Substance name:
High Purity Natural Crystalline Flake Graphite

CAS #: 7782-42-5
EC #: 231-955-3

REACH Registration No: Exempt from REACH registration

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Inorganic source of carbon, filler, thermal additive, re-carburizer, casting powders, drilling fluids, plastic additive, rubber additive, tint/pigment, lubricant, chemically resistant additive, EMF absorber, milling and sieving, bulk loading, unloading, repackaging, general inert filler-additive.

Uses advised against:

None

1.3 Details of the supplier of the safety data sheet:

Carbon Graphite Materials Inc.
115 Central Avenue
Brocton, NY 14716

Phone: **(716) 792-7979**
Fax: **(716) 792-9297**

1.4 EMERGENCY TELEPHONE NUMBER:

(716) 792-7979

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Health
Acute Toxicity - Not Classified
Eye Corrosion - Sub-category 2A
Skin Corrosion - Not Classified
Skin Sensitization - Category 3
Mutagenicity - Not Classified
Carcinogenicity - Not Classified
Reproductive/Development - Not Classified
Target Organ Toxicity - Not Classified

Environmental
High Purity Natural Crystalline Flake Graphite is an insoluble, inorganic substance and is not expected to present any environmental hazards other then those expected for an insoluble particulate.

Physical
Solid material which poses no physical hazard according to GHS classification.

2.2 Label elements

Product identifier:

Substances:
High Purity Crystalline Flake Graphite

Trade Name:
PowerTEC

Hazard pictograms

Signal word:
Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name: High Purity Natural Crystalline Flake Graphite
EC No: #231-955-3
REACH Registration No: Exempt from REACH registration
CAS No: 7782-42-5

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation:
Remove patient to particulate-free environment. Wear approved dust mask to avoid breathing dust. Seek medical attention if irritation persists.

Following skin contact:
Wash with mild soap and warm water: High Purity Natural Crystalline Flake Graphite is non-staining to skin.

Following eye contact:
Rinse with tepid water until eyes are clear of particulates. Seek medical attention if irritation persists.

Following ingestion:
Get immediate medical attention. Do not induce vomiting unless directed by medical personnel. Natural graphite is not known to be toxic by ingestion. However, ingestion may cause digestive system blockage.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Dry chemical extinguisher, water, sand, limestone powder.

5.2 Special hazards arising from the substance or mixture

At temperatures above 1500°C, graphite reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate graphite.

Products of Combustion:

- Carbon Dioxide (CO_2)
- Carbon Monoxide (CO)

5.3 Advice for fire-fighters

Protective Equipment:

- Self contained air pack
- Gloves
- Safety goggles

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment: Wear approved dust mask, safety goggles, and conventional work gloves.

For emergency responders

Protective equipment: Wear approved dust mask, safety goggles, and conventional work gloves.

6.2 Environmental precautions:

High Purity Natural Crystalline Flake Graphite is inert and insoluble and will not pose any soluble ion hazards to the environment. However, good housekeeping practices should be followed and spilled material should be cleaned up, and disposed of in an appropriate manner.

6.3 Methods and material for containment and cleaning up

For cleaning up: Conventional sweep or vacuum.

Other information: Avoid creating dusting conditions. High Purity Natural Crystalline Flake Graphite is a good conductor of electricity. Avoid contact between High Purity Natural Crystalline Flake Graphite and electrical circuitry.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Conventional means to avoid dusting conditions. Keep powder from contacting eyes. High Purity Natural Crystalline Flake Graphite is a good conductor of electricity. Avoid contact between High Purity Natural Crystalline Flake Graphite and electrical circuitry.

Slip Hazard:
Graphite is a highly lubricious material and may present a slip hazard if spilled on pedestrian surfaces

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Store all carbonaceous materials in a dry location. High Purity Natural Crystalline Flake Graphite is incompatible with all oxidizing agents.

Packaging materials:
PowerTEC is not packed in water proof packaging. Pallet shrink wrapping is not intended as a water proofing or water resistance measure.

Hints on storage assembly:

Materials to avoid:
All oxidizing agents.

7.3 Specific end uses:

If stored outside, it is recommended that all pallets and bags are tarped or stored under some form of mechanical cover to maintain a dry product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
German or US Limits

8.2 Exposure Controls

High Purity Natural Crystalline Flake Graphite	7782-42-5	100	2.0 mg/m^3 Respirable Dust	3 mg/m^3 Nuisance Dust

8.3 Engineering Measures
Use adequate dust collection to maintain dust levels below the control or recommended values.

8.4 Respiratory Protection
Approved dust mask, type N95 recommended.

8.5 Eye Protection
Conventional safety glasses or goggles.

8.6 Skin Protection
Conventional work gloves and clothing.

8.7 Flammable Limits
LEL and UEL values not available: Minimum Ignition Energy (MIE) greater than 10 joules. When exposed to extremely high energy ignition sources very finely divided graphite powder can form explosive mixtures with air. Avoid contact between graphite dust clouds and high energy ignition sources. Classified as not flammable.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Solid, granular or powder
Color: Gray to Black
Odor: None

Boiling Point	N/A
Specific Gravity	2.26
Vapor Pressure (mm Hg)	N/A
Solubility In Water	Insoluble
pH	N/A
Decomposition Temp	Oxidizes above 400°C
Flash Point	N/A (Solid substance with very high melting point)
Melting Point	Sublimates at 3652°C
Vapor Density	N/A
% Volatile (By Wt.)	0-4%
Evaporation Rate	N/A
Auto Ignition	Above 500°C
Dust Explosion Class	ST1=KST>0-200 bar m/s

SECTION 10: Stability and reactivity

10.1 Reactivity
Inert

10.2 Chemical stability
Stable. Will not polymerize

10.3 Incompatible materials:
Oxidizing agents

10.4 Hazardous decomposition products:

- Carbon Dioxide (CO_2)
- Carbon Monoxide (CO)

SECTION 11: Toxicological information

Toxicological information about High Purity Natural Crystalline Flake Graphite is not available. Natural graphite is inert, insoluble and is not expected to present an ingestion hazard.

SECTION 12: Ecological information

12.1 Toxicity:
High Purity Natural Crystalline Flake Graphite is inert and insoluble. To the best of our knowledge, natural graphite should not present any environmental hazards.

Aquatic toxicity
Data Not Available

12.2 Persistence and degradability

High Purity Natural Crystalline Flake Graphite is a reduced form of carbon and will not degrade further under normal conditions. This form of carbon is stable, unreactive in water under ambient conditions.

12.3 Bioaccumulative potential

There is no evidence indicating that High Purity Natural Crystalline Flake Graphite is bioaccumulative.

12.4 Mobility in soil

Not determined, however High Purity Natural Crystalline Flake Graphite is not expected

to have mobility in soil as it is an insoluble, inorganic substance.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in a manner which conforms to local, state and Federal regulations.

SECTION 14: TRANSPORT INFORMATION

Shipping Name	PowerTEC
Technical Name (N.O.S.)	High Purity Natural Crystalline Flake Graphite
Hazard Class	Non Hazardous
Subsidiary Class	N/A
UN Number	N/A
Packing Group	N/A
Marine Transport	Not classified as a hazardous material
LandTransport	Not classified as a hazardous material
Air Transport	Not classified as a hazardous material
Transport Label Required	No label required

SECTION 15: REGULATORY INFORMATION

EEC EINECS	**#231-955-3**
US TSCA	**Yes**
Canada DSL	**Yes**
Canada NDSL	**No**
Australian AICS	**Yes**
Korean ECL	**Yes**
Asia PAC	**Yes**
Swiss Giftliste 1	**Yes #G8422**
IECSC	**Yes**
New Zealand NZLoC	**Yes**
REACH:	**Yes (Exempt from REACH registration)**
RoHS: High Purity Natural Crystalline Flake Graphite is compliant with the EU RoHS directive	
WEEE: High Purity Natural Crystalline Flake Graphite is compliant with the EU waste electrical and electronic equipment directive	

SECTION 16: OTHER INFORMATION

16.1 Ratings

System	Rating	Health	Flammability	Reactivity	Special Notice
HMIS Rating	100	**1**	**0**	**0**	E
NFPA Rating	110	**1**	**1**	**0**	

16.2 Abbreviations and acronyms:

ACGIH	American Council of Government and Industrial Hygienists
TWA	Time Weighted Average
CAS	Chemical Abstracts Service
N/A	Not applicable
N.O.S.	Not otherwise specified
HMIS	Hazardous Materials Identification System
NFPA	National Fire Protection Association