

Revision Date: March 27, 2002
Revision Number: 1.0

MATERIAL SAFETY DATA SHEET

Product/Substance Identification Silicon Carbide

Product Name: POWERMELT HP

Chemical Formula: 97% Metallurgical Silicon Carbide

Trade Names/Synonyms: Carborundum; silicon monocarbide, carbon silicide, silundum, CMC86507

Company Name: Dauber Co., Inc.
577 North 18th Road
Tonica, Illinois 61370

Emergency Telephone No: 800.682.8478

CHEMTREC ® 800.424.9300

HMIS Number 1

Hazardous Ingredients Information

% Comp. Hazardous Components	CAS <	EC # (EINECS)	RTECS #	OSHA PEL1	ACGIH TLV2
> 97% Silicon Carbide	409-21-2	206-991-8	VW0450000	10 Mg/M3 5 Mg/M3 ^	10 Mg/M3
< 6% Graphite (Synthetic)	7440-44-0	231-153-3	FF5250100	15 Mg/M3 (total) 5 Mg/M3 ^	2 Mg/M3 ^ (respirable dust)
< 2% Ferric Oxide Red	1309-37-1	215-168-2	NO7400000	10 Mg/M3 (total part)	5 Mg/M3 ^
< 0.5% Aluminum Oxide	1344-28-1	215-691-6	BD1200000	15 Mg/M3 (total) 5 Mg/M3(resp)	

1 Occupation Safety and Health Administration final rule permissible exposure limits.

2 American Conference of Governmental Industrial Hygienists threshold limit values.

^ Respirable Fraction: Determined using industrial hygiene methods.

Physical & Chemical Characteristics

Appearance and odor:	Exceedingly hard, dull gray to black crystal and no odor.
Boiling Point:	Decomposed at 4262 F / 2350 C, Sublimes at or above 4892 F / 2700 C
Melting Point:	See Boiling Point
Vapor Pressures:	NA
Vapor Density:	NA
PH:	NA
Specific Gravity:	(H2O = 1) 3.2
Molecular weight:	40.10
Molecular formula:	Si-C
Evaporation Rate:	NA
Solubility in water:	Insoluble
Solvent Solubility:	Soluble: fused potassium hydroxide, fused alkali, molten iron. Insoluble: acids, alcohol.

Fire and Explosion Hazard Data

Flash Point:	NA
Flammable Limits:	NA
Extinguishing Media:	Water spray, Dry Chemical, Carbon Dioxide (CO2), Foam, media suitable for surrounding the fire.
Lower/Upper Explosion Limits:	NA
Special Fire Fighter Procedures:	Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear NIOSH approved SCBA and full protective equipment.
Unusual F & E Hazards:	None (Material <u>NOT</u> combustible)

Stability and Reactivity Data

Stability:	Stable
Incompatibility:	metals, oxidizing materials, halogens, combustible materials, peroxides, acids, reducing agents, metal carbides.
Hazardous Decomposition or By-Products:	NA
Conditions to avoid:	Generating dust.

Health Hazard Data

Route(s) of entry:	Inhalation: yes Skin: no
Health Hazards:	Acute upper respiratory irritation. Chronic may lead to extensive fibrosis & progressive lung disease.
Inhalation:	Short term exposure: irritation, difficulty breathing, lung damage, metal fume fever. Long term exposure: same as effects reported in short term exposure.

Ferric Red Iron, Aluminum Oxide = Metal Fume Fever an influenza-like illness, may occur due to the inhalation of freshly formed metal oxide particles sized below 1.5 microns and usually between 0.02-0.05 microns. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalized feeling of malaise. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea and prostration may occur. A tolerance to fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours.

Skin contact: Short term exposure: irritant dermatitis accompanied by purities.
Long term exposure: no information available.

Eye contact: Short term exposure: mechanical irritation with redness and possibly swelling of the conjunctiva.
Long term exposure: no information available.

Ingestion: Short term exposure: no information available.
Long term exposure: no information on significant adverse effects.
Some aluminum compounds cause constipation.
Carbon compounds (large dose) may produce gastrointestinal disturbance.

Carcinogenicity: NPT: No
IARC: No
OSHA No

Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Sweep, shovel or vacuum materials. Limit exposure to dust.

Waste Disposal method: May be land filled in accordance with state, federal and local regulations.

Precautions to be taken in handling and storing: Limit generation of dust.

Other precautions: Particles may be sharp which may cause cuts and abrasions to skin and eyes.

Control Measures

Respiratory Protection: NIOSH approved dust respirator recommended for limiting exposure. Similar respiratory protection required at concentrations above PEL.

Ventilation: Local exhaust recommended.

Protective Gloves: Recommended to prevent cuts and abrasions.

Eye Protection: Recommended

Other Protective: Clothing/Equipment: None

Work/Hygienic Practices: Minimize generation of dust.

Sara Title III Reporting

To the best of our knowledge, this product does not contain any substance requiring on the SARA, Title III, and Section 313 list.

The information published in this Material Safety Data Sheet has been compiled from our experience, and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the user's application and for adopting necessary safety precautions.