

MATERIAL SAFETY DATA SHEET

MSDS NO. 107



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SECTION I - IDENTIFICATION

Helwig Carbon Products, Inc.

Telephone: (414) 354-2411

Fax: (414) 354-2421

8900 West Tower Ave
Milwaukee, WI 53224

Product Name:
Graphite with Cured Resin

Chemical Name:

Hazard Rating	Health	Fire	Reactivity
Least	1	0	0
Moderate			
Extreme			

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT	C.A.S. NO.
Phenolic Resin (cured)*	up to 50	None

*No specific exposure standards are established for the cured resin. Generally, the dust PEL for graphite represents the critical component of this mixture, unless the resin is subjected to thermal or chemical decomposition.

SECTION III - OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL: 15 mg/m³ as total nuisance particulate; 5 mg/m³ as respirable fraction

ACGIH TLV: 10 mg/m³ as total nuisance particulate; 2 mg/m³ as respirable fraction

NIOSH: N/A

CARCINOGEN: NTP No IARC No OSHA No

SECTION IV - HEALTH HAZARDS

Effects of exposure:

Primary Route(s) of Entry: Inhalation of dust

Effects of Overexposure:

Eyes: At high dust level, mechanical irritation.

Breathing: Long term over-exposure to graphite dust may lead to benign pneumoconiosis.

Swallowing or Skin: None

Medical Conditions Recognized as Possibly Aggravated by Exposure:

Individuals with pre-existing chronic respiratory impairments or with serum antitrypsin deficiency may be at increased risk of pneumoconiosis.

SECTION V - EMPLOYEE PROTECTION

Respiratory Protection:	Use approved dust respirator if exposure exceeds PEL limits.
Eye Protection:	If airborne particles are produced.
Protective Gloves:	None required
Other Protective Equipment:	None required
Ventilation:	Local exhaust ventilation recommended if dust level exceeds PEL limit, or if the material is heated to decomposition.

SECTION VI - FIRST AID

Skin Contact:	None necessary.
Eye Contact:	Flush with water if irritation occurs.
Inhalation:	None necessary.
Ingestion:	None necessary.

SECTION VII - FIRE AND EXPLOSION DATA

Flash Point	None
Flammable Limits:	N/A LEL _____ UEL _____
Extinguishing Media:	Water, CO ₂ , Sand, Dry Chemical
Special Fire Fighting Procedures:	Self-contained breathing apparatus, as normal.
Unusual Fire and Explosion Hazards:	If heated to decomposition, phenol and formaldehyde vapors may be released. If combusted, CO and CO ₂ will be released. Dusts from this mixture is normally not explosive, but they may weakly contribute if the event is initiated by another explosive dust or gas. Graphite dusts are electrically conductive; dust accumulations may cause electrical short circuits or other electrical malfunctions.

SECTION VIII - SPECIAL PRECAUTIONS

Precautions for Handling and Storing:	None
Other Precautions:	Free formaldehyde may be released by thermal or chemical decomposition of the resin. Formaldehyde has been identified by other sources as suspected or confirmed human carcinogen.

SECTION IX - ENVIRONMENTAL PROTECTION

Spill or Leak Procedures:

Use normal housekeeping procedures.

Waste Disposal Method:

Bury in an approved landfill. Dispose of according to local, state, and federal regulations.

SECTION X - PHYSICAL DATA

Boiling Point: Resin decomposes	Vapor Pressure: Negligible at room temperature	Spec. Gravity: 1.8-2.2, mixture
Vapor Density: Negligible at room temperature	Evaporation Rate: (_____ = 1) 0	Solubility in Water: Insoluble
Volatile by Weight: <0.1% mixture	Appearance: Gray black solid	Odor: None

SECTION XI - REACTIVITY DATA

<input type="checkbox"/> Unstable	<input checked="" type="checkbox"/> Stable	Hazardous Polymerization	<input type="checkbox"/> May Occur	<input checked="" type="checkbox"/> Will not occur
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Conditions and Materials to Avoid:

Strong oxidizing agents.

Hazardous Decomposition Products:

Heat over 500°F causes resin decomposition

SECTION XII - REFERENCES

OSHA:	29 CFR 1910.1000
NIOSH:	Occupational Health Guidelines
ACGIH:	Threshold Limit Values for Chemical Substances, current edition
AIHA:	Hygienic Guides
ANON:	Resin Manufacturer's Material Safety Data Sheet
MSDS:	SGL MSDS 107