

# SPECIALTY MATERIALS, INC.

Manufacturers of Boron and SCS Silicon Carbide Fibers and Boron Nanopowder

## MATERIAL SAFETY DATA SHEET – Hy-Bor® Prepreg Tape

### SECTION 1

MANUFACTURER'S NAME: SPECIALTY MATERIALS, INC.  
ADDRESS: 1449 MIDDLESEX STREET  
CITY, STATE, AND ZIP: LOWELL, MA 01851

EMERGENCY TELEPHONE NO.: 978-322-1927

OTHER INFORMATION: 978-322-1900

DATE PREPARED: MARCH 20, 2003

SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION: AL KUMNICK

### HMIS LABEL

HEALTH	1
FIRE	1
REACTIVITY	1
PPE	X

### SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

HAZARDOUS COMPONENT(S)	OSHA PEL	ACGIH TLV	OTHER EXPOSURE LIMITS	% MAXIMUM CONTENT	CAS NUMBER
Boron Filament					
Epoxy Cresol Novolac Polymer	N/K Code: M	N/K Code: M			29690-82-2
Glycidyl Amino Phenol	N/K Code: M	N/K Code: M			Not Available
Graphite					Not Available

MATERIAL IS BORON MONOFILAMENT ENCAPSULATED IN CATALYZED EPOXY RESIN

### SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: NOT DETERMINED

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.3

VAPOR PRESSURE (mm Hg): NOT DETERMINED

VAPOR DENSITY (AIR = 1): NOT DETERMINED

SOLUBILITY IN WATER: NEGLIGIBLE

REACTIVITY IN WATER: NONE

MELTING POINT: NOT APPLICABLE

APPEARANCE AND ODOR: GRAY FILM, PREPREG, SLIGHT ODOR

### SECTION 4 - FIRE & EXPLOSION DATA

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FLASH POINT:	NOT DETERMINED
METHOD USED:	NOT APPLICABLE
FLAMMABLE LIMITS IN AIR % BY VOLUME:	
LEL LOWER:	NOT DETERMINED
UEL UPPER:	NOT DETERMINED
AUTO-IGNITION TEMPERATURE:	DECOMPOSITION TEMPERATURE >300°C
EXTINGUISHER MEDIA:	CARBON DIOXIDE, FOAM, DRY CHEMICAL, WATER SPRAY, SUBMERGE IN WATER OR COVER WITH INERT MATERIAL
SPECIAL FIRE FIGHTING PROCEDURES:	USE SELF-CONTAINED BREATHING APPARATUS. COOL FIRE-EXPOSED CONTAINERS WITH WATER. IN THE CASE OF LARGE FIRES, ALSO COOL SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	DECOMPOSITION AND COMBUSTION PRODUCTS MAY BE TOXIC.

## ----- SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA) -----

STABILITY:	UNSTABLE ( ) STABLE (X)
CONDITIONS TO AVOID:	AVOID CONDITIONS OVER 300 DEG. F
INCOMPATIBILITY (MATERIALS TO AVOID):	STRONG OXIDIZERS, ACIDS, AND BASES
HAZARDOUS DECOMPOSITION PRODUCTS:	CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES AND OTHER TOXIC ORGANIC SPECIES.
HAZARDOUS POLYMERIZATION:	MAY OCCUR ( ) WILL NOT OCCUR (X)

## ----- SECTION 6 - HEALTH HAZARDS -----

1. ACUTE:	RESIN - SKIN AND EYE IRRITATION. SKIN SENSITIZER. ACUTE OVEREXPOSURE MAY RESULT IN IRRITATION, SENSITIZATION AND DERMATITIS. FILAMENT - FIBER SPLINTERS, EYE AND SKIN IRRITANT BY CONTACT.
2. CHRONIC:	POSSIBLE ALLERGIC REACTION, DERMATITIS.
SIGNS AND SYMPTOMS OF EXPOSURE:	IRRITATION OF SKIN OR EYES FROM SPLINTERS OR EPOXY
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	SKIN AND EYE CONDITIONS, DERMATITIS

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EMERGENCY AND FIRST  
AID PROCEDURES:

EXCESSIVE SKIN CONTACT AND/OR SPLINTER FROM EPOXY/FIBERS MAY CAUSE IRRITATION. REMOVE SPLINTERS AS SOON AS POSSIBLE TO GUARD AGAINST ANY INFECTION. FIBERS CAN BE DIFFICULT TO REMOVE. MEDICAL ASSISTANCE MAY BE REQUIRED. WASH OFF EPOXY WITH WATER.

ROUTES OF ENTRY:

1. INHALATION:

REMOVE TO FRESH AIR AND SEEK MEDICAL ATTENTION.

2. EYES:

PROMPLY FLUSH EYES WITH COOL WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.

3. SKIN:

WASH AREA WITH SOAP AND WATER. GET MEDICAL ATTENTION, ANY MATERIAL ADHERING TO SKIN SHOULD BE REMOVED BY MEDICAL PERSONNEL. (USE RESIN REMOVING CREAMS, DO NOT USE SOLVENTS). REMOVE AND WASH CONTAMINATED CLOTHING PRIOR TO REUSE.

4. INGESTION:

IF CONCIIOUS, GIVE LARGE QUANTITIES OF WATER. GET MEDICAL ATTENTION.

CHEMICAL LISTED AS CARCINOGEN  
OR POTENTIAL CARCINOGEN:

NATIONAL TOXICOLOGY PROGRAM:

YES ( ) NO (X)

I.A.R.C. MONOGRAPHS:

YES ( ) NO (X)

OSHA:

YES ( ) NO (X)

## --- SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES ---

PRECAUTIONS TO BE TAKEN  
IN HANDLING AND STORAGE:

CAREFUL HANDLING TO AVOID ANY PENETRATION OF SKIN OR EYES BY FIBERS. FIBERS ARE ENCASED IN CATALYZED EPOXY RESIN. SOME INDIVIDUALS CAN DEVELOP RASHES FROM EPOXY RESINS. STORE IN CLOSED CONTAINERS AND USE GLOVES OR BARRIER CREAMS IF RASH OCCURS.

OTHER PRECAUTIONS:

NONE KNOWN. THIS RESIN SYSTEM SHOULD BE CONSIDERED MORE REACTIVE THAN MOST EPOXY RESIN SYSTEMS.

STEPS TO BE TAKEN IN CASE  
MATERIAL IS RELEASED  
OR SPILLED:

CLEAN MATERIAL CAN BE RETURNED TO STORAGE. DIRTY MATERIAL SHOULD BE CURED TO PREVENT EXOTHERM OF RESIN. CLEAN UP CAREFULLY TO AVOID FIBER SPLINTERS. SWEEP UP OR VACUUM.

WASTE DISPOSAL METHOD  
(CONSULT FEDERAL, STATE,  
AND LOCAL REGULATIONS):

IN ACCORDANCE WITH FEDERAL STATE AND LOCAL REGULATIONS. CURED MATERIAL MAY NOT BE A HAZARDOUS WASTE.

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## -- SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES --

RESPIRATORY PROTECTION: (SPECIFY TYPE):	WHERE DUST IS GENERATED, USE RESPIRATOR (29 CFR 1910.134)
VENTILATION:	REQUIRED
LOCAL EXHAUST:	REQUIRED
MECHANICAL (GENERAL):	AS PER ACGIH INDUSTRIAL VET. GUIDELINES
SPECIAL:	
OTHER:	
PROTECTIVE GLOVES:	RECOMMENDED 29 CFR 1910.132
EYE PROTECTION:	RECOMMENDED 29 CFR 1910.133
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	NONE
WORK/HYGIENIC PRACTICES:	CAREFUL HANDLING TO PREVENT SPLINTERS. WASH HANDS THOROUGHLY BEFORE EATING OR SMOKING.

## ----- SECTION 9 – TOXICITY INFORMATION -----

## ----- SECTION 10 – ATTACHMENTS -----

### NOTICE:

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