

SPECIALTY MATERIALS, INC.

Manufacturers of Boron and SCS Silicon Carbide Fibers and Boron Nanopowder

MATERIAL SAFETY DATA SHEET – BORON FIBER

----- SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION -----

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: July 24, 2008

SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION: AL KUMNICK

HMIS LABEL	
HEALTH	I
FIRE	0
REACTIVITY	0
PPE B	

----- SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY -----

PRODUCT	HAZARDOUS COMPONENT(S)	CAS NUMBER	% MAXIMUM CONTENT
BORON FIBER 3 mil	MERCURY	7439-97-6	NOT DETECTED
BORON FIBER 4 mil	MERCURY	7439-97-6	NOT DETECTED
BORON FIBER 5.6 mil	MERCURY	7439-97-6	0.67 ppm

PRODUCT MEETS ARTICLE DEFINITION OF 40 CFR 704.3. HOWEVER, MERCURY IS PRESENT IN TRACE AMOUNTS ON THE SURFACE OF 5.6 MIL FIBER AS A RESULT OF DIRECT CONTACT DURING THE MANUFACTURING PROCESS.

----- SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS -----

BOILING POINT: NOT APPLICABLE

SPECIFIC GRAVITY (H₂O = 1): 2.4

VAPOR PRESSURE: NEGLIGIBLE

SOLUBILITY IN WATER: NEGLIGIBLE

REACTIVITY IN WATER: NONE

MELTING POINT: SUBLIMES @ 2300°C

APPEARANCE AND ODOR: ODORLESS BLACK CYLINDRICAL FIBER, DIAMETER RANGE 100-200 MICRONS

COMPOSITION: BORON ON A TUNGSTEN SUBSTRATE

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SECTION 4 - FIRE & EXPLOSION DATA

FLASH POINT: NOT APPLICABLE
METHOD USED: NOT APPLICABLE
FLAMMABLE LIMITS IN AIR % BY VOLUME:
LEL LOWER: NOT APPLICABLE
UEL UPPER: NOT APPLICABLE
AUTO-IGNITION TEMPERATURE: NONE
EXTINGUISHER MEDIA: NOT APPLICABLE
SPECIAL FIRE FIGHTING PROCEDURES: NONE
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

STABILITY: UNSTABLE () STABLE (X)
CONDITIONS TO AVOID: NOT REACTIVE
INCOMPATIBILITY: NONE KNOWN
HAZARDOUS DECOMPOSITION PRODUCTS: NONE KNOWN
HAZARDOUS POLYMERIZATION: MAY OCCUR () WILL NOT OCCUR (X)
CONDITIONS TO AVOID: NONE KNOWN

SECTION 6 - HEALTH HAZARDS

1. ACUTE: PUNCTURE OF THE SKIN BY FIBER SPLINTERS
2. CHRONIC: NONE KNOWN
SIGNS AND SYMPTOMS OF EXPOSURE: SORENESS AT THE POINT OF PENETRATION, SPLINTERS
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN
EMERGENCY AND FIRST AID PROCEDURES: REMOVAL OF SPLINTERS MUST BE ACCOMPLISHED AS SOON AS POSSIBLE TO AVOID ANY INFECTION. SEEK MEDICAL ASSISTANCE IN ALL CASES TO REMOVE SPLINTERS AND GUARD AGAINST INFECTION.
ROUTE OF ENTRY:
1. INHALATION: YES () NO (X) UNLIKELY - FIBER SIZE TOO LARGE.
2. EYES: YES (X) NO () SEEK MEDICAL ATTENTION IMMEDIATELY
3. SKIN: YES (X) NO () REMOVAL OF SPLINTERS IN SKIN CAN BE DIFFICULT. RECOMMEND MEDICAL ASSISTANCE FOR ALL SPLINTERS.
4. INGESTION: YES () NO (X) UNLIKELY TO OCCUR, HOWEVER, SEEK MEDICAL ATTENTION.
POTENTIAL CARCINOGEN:
NATIONAL TOXICOLOGY PROGRAM: YES () NO (X)

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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 FIBER. FIBER SIZE LARGE AND DENSE TO MAKE INHALATION UNLIKELY. HOWEVER, DUST MASKS CAN BE WORN AS AN EXTRA PRECAUTION. AVOID COILING TIGHTLY OR DOUBLING OVER TO MINIMIZE SPLINTERS.

OTHER PRECAUTIONS:

RECOMMEND SAFETY GLASSES WITH SIDE SHIELDS. THIN LEATHER GLOVES ARE ALSO RECOMMENDED WHILE HANDLING FIBERS IF THE OPERATION CAN BE PERFORMED USING THEM.

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

SWEEP OR VACUUM CAREFULLY TO AVOID PENETRATION OF FOOTWEAR OR CLOTHING OF PERSONNEL. FIBERS CAN PENETRATE CLOTHING AND GIVE EMPLOYEES SPLINTERS LATER.

WASTE DISPOSAL METHODS:

NOT A HAZARDOUS WASTE. HOWEVER, DISPOSAL AND MAINTENANCE PERSONNEL MUST BE AWARE OF THE SPLINTER HAZARD. DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

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

RESPIRATORY PROTECTION:

NOT NORMALLY REQUIRED

VENTILATION:

AS PER ACGIH FOR GOOD QUALITY INDOOR AIR

LOCAL EXHAUST:

NOT APPLICABLE

MECHANICAL:

NOT APPLICABLE

SPECIAL:

NOT REQUIRED

OTHER:

NOT REQUIRED

PROTECTIVE GLOVES:

RECOMMENDED (29 CFR 1910.132)

EYE PROTECTION:

RECOMMENDED (29 CFR 1910.133)

OTHER PROTECTIVE CLOTHING
OR EQUIPMENT:

NOT APPLICABLE.

WORK/HYGIENIC PRACTICES:

CAREFUL HANDLING TO PREVENT SPLINTERS. WASH HANDS THOROUGHLY BEFORE EATING OR SMOKING.

----- SECTION 9 - TOXICITY INFORMATION -----

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----- SECTION 10 - ATTACHMENTS -----

NOTICE:

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