

MATERIAL SAFETY DATA SHEET

PRODUCT #FE-0004B

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION
H.B. Fuller Company
1200 Willow Lake Boulevard
Vadnais Heights, MN 55110

DISTRIBUTOR INFORMATION
American Chemical, Inc.
2201 North 2nd Street
Minneapolis, MN 55411
(612) 522-4707

Medical Emergency Phone Number (24 hour): 1-888-853-1758
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT INFORMATION

Product Number: FE0004B
Product Identifier: 802449PM
Product Description: Amine hardener

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for any additional exposure limit guidelines.

CHEMICAL NAME	CAS #	PERCENT	OSHA PEL
Calcium carbonate	471-34-1	30 - 50	TWA (Respirable dust) 5mg/m ³ TWA (Total dust) 15 mg/m ³
Polyamide resin	68082-29-1	30 – 50	Not established
Triethylenetetramine	112-24-3	5 - 10	Not established
Diethylenetriamine	111-40-0	1 – 5	TWA 1ppm
Silica, amorphous fumed	112945-52-5	1 - 5	Not established
Crystalline silica	14808-60-7	0.1 – 1	TWA (Respirable dust) 0.1MG/M ³

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Corrosive to eye tissue. Causes skin burns. May cause allergic skin reaction. Moderate respiratory tract irritant. May cause an allergic respiratory reaction. Harmful if swallowed. Cancer hazard.
Health-3 Flammability-1 Reactivity-0
Exposure controls/personal protection for personal protective equipment recommendations.

HMIS Rating:
See Section 8:

POTENTIAL HEALTH EFFECTS BY ROUTE ENTRY

Eye:

Corrosive to eye tissue. Can cause severe irritation, tearing, and burns that can quickly lead to permanent injury including blindness.
Corrosive to skin tissue. Can cause chemical burns. May cause sensitization. Component(s) may be absorbed through intact skin, but it is unlikely that harmful effects will occur unless contact is prolonged, repeated, and extensive.

Skin:

Inhalation:

Can cause moderate respiratory irritation. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract. May cause allergic respiratory

Ingestion:	reaction. Over exposure to crystalline silica may cause silicosis. This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur. Ingestion is not an anticipated route of exposure. Harmful if swallowed. Corrosive to tissue. Can cause severe and permanent damage to mouth, throat, and stomach. Aspiration may lead to lung damage.
Long-Term (Chronic) Health Effects Reproductive:	Contains a substance that is a possible productive hazard based on animal studies at doses that could be encountered in the workplace.
Target Organs(s): Regulated Carcinogen Status:	Lungs Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens. Crystalline silica
Existing Health Conditions Affected by Exposure:	Lung disease.

SECTION 4 – FIRST AID MEASURES

If In Eyes:	Immediately flush eyes with plenty of water for at least 20 minutes. Get immediate medical attention. This corrosive material can cause immediate and permanent eye damage. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.
If On Skin:	Wash with soap and water under a drench shower. Remove contaminated clothing, launder immediately, and discard contaminated leather goods. Get medical attention immediately.
If Vapors Inhaled:	Remove to fresh air. Restore breathing, if necessary. Call a physician if symptoms persist.
If Swallowed:	Corrosive. Do not induce vomiting. Drink one glass of water followed by milk if available. Seek Medical attention immediately. Do not give anything by mouth to an unconscious person. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

SECTION 5 – FIRST FIGHTING MEASURES
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Flash Point:	>204 C (400 F) Cleveland Closed Cup
Auto Ignition Temperature:	Not established
Lower Explosive Limit (% in air):	Not established
Upper Explosive Limit (% in air):	Not established
Extinguishing Media:	Use water spray, foam, dry chemical or carbon dioxide.
Unusual Fire and Explosion Hazards:	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers. Material will burn in a fire.
Special Fire Fighting Instructions:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide, Nitrogen containing gases

SECTION 6 – ACCIDENTAL RELEASE MEASURES
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Special Protection:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Personal protective needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill and the area in which the spill occurred. Never exceed any occupational exposure limits.
Cleanup:	Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

SECTION 7 – HANDLING AND STORAGE

Handling: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated areas. This product contains an ingredient that may release formaldehyde at heated cure temperatures.

Storage: Store in a cool, dry place

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear chemical splash goggles when handling this product. Additionally, wear a face shield when the possibility of splashing of liquid exists. Do not wear contact lenses. Have an eye wash station available.

Skin Protection: Prevent contact with this product. Wear chemically resistant gloves, long sleeved shirt, an apron, and other protective equipment depending on conditions of use. Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorption so that the TLV is not invalidated.

Gloves: Butyl rubber.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air purifying respirator with dust/mist filter if product is sprayed. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

Ventilation: Use local exhaust ventilation or other engineering controls to minimize exposures.

Exposure Limits:

Chemical Name	ACGI Exposure Limits	AIHA WEEL
Calcium carbonate	TWA Fume 10MG/M3	Not established
Polyamide resin	Not established	Not established
Triethylenetetramine	Not established	TWA 1ppm Skin notation
Diethylenetriamine	TWA 1ppm Skin notation	Not established
Silica, amorphous fumed	Not established	Not established
Crystalline silica	TWA (Respirable dust) 0.025mg/m ³	Not established

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Tan

Odor: Mild Ammonia

Odor Threshold: Not established

Weight per gallon (lbs.): 11.4

Specific Gravity: 1.37

Solids (% by weight): 100.0

pH: Not established

Boiling Point (deg. C): Not established

Freezing/Melting Point (deg. C): Not established

Vapor Pressure (mm Hg): Not established

Vapor Density: Not established

Evaporation Rate: Not established

Octanol/Water Coefficient: Not established

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under normal conditions

Chemical Incompatibility: Not established

Hazardous Polymerization: Will not occur.

Hazardous Decomposition products: Carbon monoxide, carbon dioxide, Nitrogen containing gases

SECTION 11 – TOXICOLOGICAL INFORMATION

Chemical Name	LD50/LC50
Calcium carbonate	Oral LD50 Rat = 6450mg/kg
Polyamide resin	Not established
Triethylenetetramine	Oral LD50 Rat = 2500mg/kg Dermal LD50 Rabbit = 805mg/kg
Diethylenetriamine	Oral LD50 Rat = 1080mg/kg Dermal LD50 Rat = 1090mg/kg
Silica, amorphous fumed	Oral LD50 Rat = 3160mg/kg
Crystalline silica	Not established

Toxicology summary: Triethylenetetramine is a copper chelator and causes teratogenicity through copper deficiency; copper supplementation prevents teratogenicity.

SECTION 12 – ECOLOGICAL INFORMATION

Overview: No ecological information available

SECTION 13 – DISPOSAL CONSIDERATIONS

This product does not meet the RCRA definition of corrosive waste. Consult your state, local or provincial authorities for disposal recommendations.

SECTION 14 – TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information

DOT: Not Regulated

IATA: Not Regulated

SECTION 15 – REGULATORY INFORMATION

INVENTORY STATUS

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

Canadian CEPA DSL: This product is in compliance with the Canadian Domestic Substance List requirements.

European EINECS: This product is in compliance with the European Inventory of Notified and Existing Chemical Substances requirements.

Japan ENCS: This product is in compliance with the Japanese Existing and New Chemical Substances requirements.

Korean TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

Philippines: This product is in compliance with the Philippine Inventory of Chemical and Chemical Substances requirements.

If you need more information about the inventory status of this product call 651-236-5858

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us to request an export review.

Federal Reporting

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical (s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

D2B D2A D1B

STATE REPORTING – This MSDS is not prepared for distribution – in California when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

STATE REPORTING - This MSDS is not prepared for distribution in California.

SECTION 16 – ADDITIONAL INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS)

7/2008