



NATIONAL FIBER

Cel-Pak[®] Cellulose Insulation

MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: December 3, 2009

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cel-Pak[®]
Chemical Formula: $(C_{11}H_{15}O_5) \cdot H_3BO_3$
Chemical Name/Synonyms: Cellulose Insulation
Chemical Family: Cellulose Treated With Inorganic Salts
CAS Registry Number: Not Established
TSCA Inventory Number: Not Listed

MANUFACTURER: National Fiber
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Cel-Pak is a registered trademark of National Fiber

COMPOSITION/INFORMATION ON INGREDIENTS OSHA HAZARDS

Cel-Pak[®] cellulose insulation contains over 82 percent by weight newsprint processed into cellulose fiber, CAS No. 65996-61-4. This product contains less than 17 percent (%) by weight boric acid (H_3BO_3), CAS No. 10043-35-3. Boric acid is added for purposes of superior fire resistance and insecticide properties within the insulation. A small quantity of distillate mineral oil, CAS No. 6471-88-4, is added to the product for dust suppression and enhanced bonding of the fire retardant. Regarding information on the chronic and ecological toxicity of this product, we have reviewed the available medical and toxicological literature for 100% boric acid. Boric acid is hazardous under the OSHA Hazard Communication Standard based on animal chronic toxicity studies.

HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Cel-Pak[®] is a gray, odorless cellulosic fiber insulation material. The product is not flammable, combustible, or explosive, and it presents no unusual hazard if involved in a fire. Cel-Pak[®] Insulation has low acute oral and even lower dermal toxicities. Care should be taken to minimize the amount of Cel-Pak[®] Insulation released to the environment to avoid ecological effects.

POTENTIAL ECOLOGICAL EFFECTS:

Large amounts of Cel-Pak[®] cellulose insulation can be harmful to boron-sensitive plants and other ecological systems.

POTENTIAL HEALTH EFFECTS:

Routes of Exposure: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern because Cel-Pak[®] cellulose insulation is not absorbed through intact skin.

Inhalation: Irritation of the nose and throat may occur from the inhalation of Cel-Pak insulation dust at levels greater than 2mg/m³ (ACGIH TLV).

Eye Contact: Eye contact with boric acid or dust associated with Cel-Pak can cause irritation, redness and pain.

Skin Contact: The boric acid in Cel-Pak can cause irritation to damaged skin. Prolonged contact with intact skin can cause dermatitis.

Ingestion: Cel-Pak[®] cellulose insulation is not intended for ingestion. Small amounts (e.g. less than 30mg of boric acid or 150mg of Cel-Pak) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms. Also see Signs and Symptoms of Exposure below.

Cancer: Cel-Pak[®] cellulose insulation is not considered a carcinogen.

Signs and Symptoms of Exposure: Symptoms of accidental over-exposure to borate products have been associated with ingestion or by absorption through large areas of damaged skin. These may include nausea, vomiting, diarrhea, drowsiness, rash, headache, decrease in body temperature, reduction in blood pressure, renal (kidney) injury, cyanosis, coma, and death.

FIRST AID MEASURES

Inhalation: Prolonged exposure to dust levels in excess of regulatory limits should always be avoided. If irritation or difficulty in breathing occurs, move to fresh air. Seek medical attention if symptoms persist.

Eye Contact: Use eye wash fountain or fresh water to cleanse eye for several minutes. If irritation persists for more than 30 minutes, seek medical attention.

Skin Contact: In case of broken skin and irritation, wash area with soap and water. If irritation continues seek medical help.

Ingestion: Swallowing less than 30mg of boric acid or 150mg of Cel-Pak insulation is not likely to cause health effects. If larger amounts are swallowed induce vomiting as directed by a physician.

NOTE TO PHYSICIANS: Observation only is required for adult ingestion of a few grams of Cel-Pak[®] cellulose insulation. For ingestion in excess of larger amounts, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

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FIRE FIGHTING MEASURES

General Hazard: Cel-Pak® cellulose insulation is not flammable or explosive.

Extinguishing Media: Any fire extinguishing media may be used on nearby fires.

Flammability Classification (CPSC standard HH-1-515E; 16CFR 1209): Non-flammable solid.

Unusual Fire Hazard: None. However, material should not be installed where temperatures may exceed 180°F. Adequate clearance should be maintained around recessed lights, chimneys, and other heat producing equipment as specified in the National Fire Prevention Code.

ACCIDENTAL RELEASE MEASURES

General: Cel-Pak® cellulose insulation contains water-soluble inorganic salts that may cause damage to trees or vegetation by root absorption.

Spills: Vacuum, shovel or sweep up Cel-Pak® cellulose insulation and place in containers for disposal in accordance with applicable local regulations. No personal protective equipment is needed to clean up spills. Cel-Pak® Insulation is a non-hazardous waste when spilled or disposed of, as defined in the Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261).

HANDLING AND STORAGE

Storage Temperature: Ambient

Storage Pressure: Atmospheric

Special Sensitivity: None known

General: No special handling precautions are required, but dry, indoor storage is recommended. To maintain package integrity, bags should be handled on a "first-in first-out" basis. Good housekeeping procedures should be followed to minimize dust generation and accumulation.

TRANSPORTATION INFORMATION

Cel-Pak® cellulose insulation may be shipped normally as a non-hazardous material.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use local exhaust ventilation to keep airborne concentrations of Cel-Pak® cellulose insulation dust below permissible exposure levels.

Personal Protection: Where airborne concentrations are expected to exceed exposure limits, NIOSH certified dust particulate respirators must be used. Eye goggles and gloves are not required for normal industrial exposures, but may be warranted if environment is excessively dusty.

Occupational Exposure Limits: Cel-Pak® cellulose insulation is listed/regulated by OSHA, Cal OSHA as "Particulate Not Otherwise Classified" or "Nuisance Dust".

OSHA: PEL*	15 mg/m ³ total dust and 5 mg/m ³ respirable dust
ACGIH: TLV**	2 mg/m ³
Cal OSHA: PEL*	10 mg/m ³

*PEL="Permissible Exposure Limit"

**TLV-"Threshold Limit Value"

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Gray, odorless fiber	Boiling Point:	Not Applicable
Specific Gravity:	0.7 compressed	Melting Point:	Not Applicable
Vapor Pressure:	Negligible @ 20°C	Flash Point:	Not Applicable
Solubility in Water:	Fiber is not soluble; Chemical additive is soluble at the rate of 4.7% @ 20° C.	pH:	7.4 (2.0% solution @ 25°C)
		Viscosity:	Not Applicable

Information presented herein has been compiled from sources considered dependable and is accurate and reliable to the best of our knowledge and belief, but it is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any law or regulation. It is the user's responsibility to determine the suitability of any material for a specific purpose and adopt necessary safety precautions. We make no warranty as to results to be obtained in using any material and, since conditions or use are not under our control, we must necessarily disclaim all liability with respect to use of any material supplied by us.

For more information contact National Fiber: 800-282-7711