



ERIE ENERGY PRODUCTS, INC.
1400 IRWIN DRIVE • ERIE, PENNSYLVANIA 16505 • PHONE (814) 454-2828

SAFETY DATA SHEET - SDS

Product Type: All-Borate Cellulose Insulation

Revision Date: September 2018

1. IDENTIFICATION AND PRODUCT IDENTIFICATION

Product Name: ThermShield® All-Borate Cellulose Insulation

Company Name: ERIE ENERGY PRODUCTS, INC
1400 Irwin Drive
ERIE, PA 16505

Emergency Contact: 800-233-1810 (M-F 8:30-3 EST)

Recommended Use: Blown-In Insulation

Restrictions: None known

2. HAZARDOUS IDENTIFICATION

Hazard Classification: No known significant effects or critical hazards.

Signal Word: None

Precautions: Wear protective gloves / protective clothing / eye protection / face protection. Avoid generating dust. Keep away from heat, sparks, open flames, and hot surfaces. No Smoking. Dispose if contents/container in accordance with local regulation. Avoid release to the environment.

Hazard Symbol: None

3. COMPOSITION, INFORMATION ON INGREDIENTS

CAS NUMBER	NAME	PERCENT
65996-61-4	Cellulose Paper Pulp	<85%
10043-35-3	Boric Acid	<15%

4. FIRST-AID MEASURES

Inhalation: Avoid breathing dust. Remove to fresh air. No acute hazard known.

Eye contact: Flush eyes with copious amount of water. No acute hazard known.

Skin contact: Wash exposed skin with soap and water. No acute hazard known.

Ingestion: Contact poison control. Do not induce vomiting. No acute hazard known.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Observation only for adult ingestion of a few grams of the product. For ingestion in excess, 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.

5. FIRE-FIGHTING MEASURES



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Special Fire Fighting Procedures: Not applicable. The product itself is a flame retardant.

Unusual Fire and Explosion Hazards: None. The product is not flammable, combustible or explosive.

Extinguish media: Water spray, CO², or Type-A fire extinguishers appropriate to the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

Environment: The product contains water-soluble salts with may cause damage to trees or vegetation by root absorption in large quantities. Avoid contamination of water bodies.

Dust: Remove with explosion-proof vacuum. Avoid generating dust.

Spill: Sweep up excess material while avoiding generating dust.

Disposal: In accordance with Federal, State and local refuse regulations. This product is a non-hazardous waste when spilled or disposed of as defined by the Resource Conservation & Recovery Act (RCRA) regulations (40 CFR 261).

7. HANDLING AND STORAGE

Avoid dust formation and accumulation with routine housekeeping. Avoid use around or near ignition sources. Store in a dry location, avoid moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV	OSHA PEL
Cellulose Fiber 65996-61-4	TLV-TWA 10mg/m ³ Total	PEL-TWA 15mg/m ³ Total PEL-TWA 5mg/m ³ Respirable
Boric Acid 10043-35-3	TLV-TWA 2mg/m ³ Total	PEL-TWA 15mg/m ³ Total PEL-TWA 5mg/m ³ Respirable

Respiratory Protection: Use NIOSH approved respiratory masks when allowable levels may be exceeded.

Eye Protection: Use goggles or eye glasses are recommended if product is used in a way as to generate high dust levels.

Hand Protection: Not required. If sensitive, wear gloves.

Other Protective Clothing: Outer garments may be desirable in extremely dusty areas.

Ventilation: Use localized exhaust ventilation.

Work/Hygiene: Wash hands with soap and water. Practice standard hygiene.

Use in a processing environment designed to contain combustible dusts, which is free of ignition sources and has an explosion and fire suppression system.

Section 8 Notes: PEL: Permissible Exposure Limit; TLV: Threshold Limit Value; TWA: Time Weighted Average; STE: Short Term Exposure Limit.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: Not Applicable

Boiling Point (F): Not Applicable

Vapor Pressure (mm Hg): Not Applicable

Vapor Density: Not Applicable

Solubility in Water: Fiber is not soluble; chemical additive is soluble at a rate of 7.46% at 25°C

Bulk Density (packaged product): 8-9lb/ft³

Reactivity in Water: Dispersible

Melting Point: Not Applicable

pH at 25C: 7.2 (2.0% solution)

Appearance & Odor: Gray fiber. No discernible odor.

LEL/UEL: No data available.

SECTION 10: STABILITY & REACTIVITY

Stability: Stable under normal storage conditions

Conditions to Avoid: Avoid extreme heat and flame

Hazardous Decomposition: May produce carbon monoxide and carbon dioxide

Possibility of Hazardous Reactions: Reaction with strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas which could create an explosive hazard

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Component	LD50 Oral	LD50 Dermal	LC50 Inhale (dust)
Cellulose Fiber	Non-toxic	Non-toxic	=5800 mg/m ³ /4 hrs (rat)
Boric Acid	2550 mg/kg (rat)	>2000 mg/kg	>2.01 mg/L

* Components not listed are not hazardous substances.

May cause irritation to eye and respiratory system. Persons with respiratory problems should avoid breathing dust. Can cause irritation to mucous membrane and upper respiratory system. Remove to fresh air.

Carcinogenicity: Cellulose and boric acid are not listed as known or suspected carcinogens by OSHA, ACGIH, NTP, or IARC.

Germ Cell Mutagenicity: Not mutagenic.

No data were found on the potential developmental effects of boric acid or borates in humans.



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Small amounts ingested are not likely to cause effects, though the product is not intended for ingestion. Symptoms of accidental over-exposure to high doses of inorganic borate salts have included nausea, vomiting and diarrhea, with delayed effects of skin redness and peeling. Human studies show no increase in pulmonary disease in occupational populations with chronic exposures to boric acid and sodium borate dust. Human epidemiological studies indicate no effect on fertility in occupational populations with chronic exposures to borate dust and indicate no effect to a general population with high exposures to borates in the environment.

12. ECOLOGICAL INFORMATION

Cellulose Fiber: slowly biodegrades in water, is not eco-toxic and persists in arid soils (landfills). Biodegradation products promote soil fertility and plant growth. No toxic components are used to manufacture this material.

Boric Acid: ECOTOXICITY: Not classified as hazardous to the environment.

PHYTOTOXICITY: Boron is an essential micronutrient for healthy growth of plants. It can be harmful to boron sensitive plants in higher quantities. Care should be taken to minimize the amount of borate product released to the environment.

PERSISTENCE AND DEGRADABILITY: Biodegradation is not an applicable endpoint since the product is an inorganic substance.

BIOACCUMULATIVE POTENTIAL: This product will undergo hydrolysis in water to form undissociated boric acid. Boric acid will not bio-magnify through the food chain. Octanol/Water partition coefficient: Log Pow = -0.7570 @ 25°C (based on boric acid).

MOBILITY IN SOIL: The product is soluble in water and is leachable through normal soil. Adsorption to soils or sediments is insignificant.

OTHER EFFECTS: None

13. DISPOSAL CONSIDERATIONS

No special requirements. Dispose of in accordance with federal, state, and local regulations. None of the components in this product are listed as a dangerous waste RCRA 40CFR261.

14. TRANSPORTATION INFORMATION

Not regulated as a hazardous material for transport.

15. REGULATORY INFORMATION



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EU Classification: 65996-61-4 is classified as non-hazardous.
WHMIS: Not considered a controlled product or not listed.
TSCA: All ingredients of this product are either listed on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
State Right-to-Know: California Proposition 65. PA, MA, NJ not listed or regulated.
SARA 313 Information: This product does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, section 313 and 40 CFR section 372.
CERCLA: This product does not contain ingredients which are subject to the reporting requirements of CERCLA.
DSL: Cellulose is on the Domestic Substance List.
OSHA: Cellulose dust is a regulated hazard under the OSHA Hazard Communication Standard (29 CFR 1910.1200).
SAFE DRINKING WATER ACT: Cellulose Insulation is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq. Consult state and local regulations for possible water quality advisories regarding boron.

Clean Water Act (Federal Water Pollution Control Act): 33 USC 1251 et seq.

- a.) Cellulose Insulation is not itself a discharge covered by any water quality criteria of Section 304 of the CWA, 33USC 1314
- b.) Not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 129

16. OTHER INFORMATION

See NFPA 654 for safe handling of combustible particulate solids.

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 patents or in violation of any laws or regulations. 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 of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.