

## SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Identifier: Cellulose Insulation

Product Name: ECOCELL<sup>®</sup> Batts

Manufacturer: Cellulose Material Solutions, LLC.  
2472 Port Sheldon St.  
Jenison, MI 49428

Emergency Phone: (888) 968-9877

ECOCELL<sup>®</sup> is a Registered Trademark of Cellulose Material Solutions, LLC.

## SECTION 2 – HAZARDS IDENTIFICATION

**Hazard Classification:** Eye Irritation Hazard Category 2B

**Signal Word:** Warning

**Hazard Statements:** Causes eye irritation

**Precautionary Statements:** Wash hands thoroughly after handling. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention.

**OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION:** None.

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS #</u>	<u>Percentage</u>
Cellulose fiber, recycled cotton	65996-61-4	40-90%
Polyethylene terephthalate (PET)	25038-59-9	10-20%
Boric acid*	10043-35-3	5-10%
Sodium polyborate	183290-63-3	5-10%
Ammonium sulfate	7783-20-2	5-10%

\*May not be present in final product.

## SECTION 4 – FIRST AID MEASURES

**Eyes:** In case of contact with dust or particles, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

**Skin:** Wash with soap and water after handling. If skin irritation develops, consult a physician.

**Ingestion:** No specific intervention is indicated, as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

**Inhalation:** The compound is not likely to be hazardous by inhalation exposure during normal use. If large amounts of dust are inhaled, remove affected person to fresh air. Consult a physician if breathing difficulty occurs.

**Notes to physicians or first aid providers:** None

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## SECTION 5 – FIRE-FIGHTING MEASURES

**Extinguishing media:** Any fire extinguishing media, including Water Spray, Foam, Dry Chemical, CO<sub>2</sub>.

**Special fire-fighting procedures:** Wear self-contained breathing apparatus (pressure demand MSHA/NIOSH approved, or equivalent) and full protective gear.

**Unusual fire and explosion hazards:** None, CMS material is not flammable, combustible, or explosive. The product itself is a flame retardant.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**General:** Contain & Remove by mechanical means. Dispose of in accordance with applicable local regulations. No personal protective equipment is needed to clean up.

## SECTION 7 – HANDLING AND STORAGE

**Precautions for Safe Handling:** No special handling precautions are required.

**Conditions for safe storage, including incompatibilities:** Dry, indoor storage is recommended.

**Storage temperature:** Ambient

**Storage pressure:** Atmospheric

**Special sensitivity:** None known

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**OSHA PEL-TWA:** Not applicable

**ACGIH TLV-TWA-OEL:** Not applicable

**Cal OSHA PEL-TWA:** Not applicable Not applicable

**Engineering controls and ventilation:** Good general ventilation should be sufficient.

**Respiratory protection:** No special control or handling procedures are required.

**Eye protection:** No special control or handling procedures are required.

**Skin protection:** No special control or handling procedures are required.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Gray, fiber

**Odor:** Not applicable

**Odor threshold:** Not applicable

**pH as supplied:** 7.3

**Melting point / freezing point:** Not applicable

**Boiling point / boiling range:** Not established

**Flash point:** Not applicable

**Evaporation rate:** Not applicable

**Flammability / flammability range:** Not applicable

**Explosive limits:** Not applicable

**Vapor pressure:** Not applicable

**Vapor density:** Negligible at 20°C

**Relative density:** Not applicable

**Solubility in water:** Insoluble

**Specific gravity:** Not applicable

**Partition coefficient:** Not applicable

**Auto-ignition temperature:** Not applicable, not self-heating

**Decomposition temperature:** Not applicable

**Viscosity:** Not applicable

**Explosive properties:** Not explosive, does not contain chemical groups associated with explosivity

**Oxidizing properties:** Not oxidizing, does not contain chemical groups associated with oxidation

## **SECTION 10 – STABILITY AND REACTIVITY**

**Stability and reactivity:** Stable and non-reactive under normal conditions.

**Conditions to avoid:** High temperature (above 80°C) for an extended time.

**Incompatible materials:** Strong acids and bases.

**Hazardous decomposition or by-products:** None known.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

**ROUTES OF EXPOSURE:** Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern as cellulose and boron compounds are not absorbed through intact skin.

**SYMPTOMS RELATED TO THE PHYSICAL, AND CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:** ECOCELL® Batts is not intended for ingestion. Small amounts swallowed accidentally are not likely to cause effects; swallowing larger amounts may cause gastrointestinal symptoms. ECOCELL® Batts does not cause irritation to intact skin in normal industrial use. Prolonged exposure to dust levels in excess of regulatory limits should always be avoided.

**DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:** Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to cellulose, boric acid, PET, sodium polyborate, or ammonium sulfate.

### **ACUTE HEALTH HAZARDS**

**Cellulose:**

**Oral LD<sub>50</sub> (rat):** >5,000 mg/kg of body weight

**Dermal LD<sub>50</sub> (rabbit):** >2,000 mg/kg of body weight

**Inhalation LC<sub>50</sub> (rat):** >5.8 mg/L

**Dermal irritation/corrosivity:** Nonirritating, nonsensitizing.

**Eye irritation:** No information found.

**Boric acid:**

**Oral LD<sub>50</sub> (rat):** 2,550 mg/kg of body weight

**Dermal LD<sub>50</sub> (rabbit):** >2,000 mg/kg of body weight

**Inhalation LC<sub>50</sub> (rat):** >2.01 mg/L

**Dermal irritation/corrosivity:** Nonirritating, nonsensitizing.

**Eye irritation:** Nonirritating

**Polyethylene terephthalate (PET):**

**Oral LD<sub>50</sub> (rat):** No information found.

**Dermal LD<sub>50</sub> (rabbit):** No information found.

**Inhalation LC<sub>50</sub> (rat):** No information found.

**Dermal irritation/corrosivity:** Nonirritating.

**Eye irritation:** Mechanical irritation only.

**Sodium polyborate:**

**Oral LD<sub>50</sub> (rat):** 3,479 mg/kg of body weight

**Dermal LD<sub>50</sub> (rabbit):** >2000 mg/kg of body weight

**Inhalation LC<sub>50</sub> (rat):** >5.8 mg/L

**Dermal irritation/corrosivity:** 0 (Zero), sodium polyborate is non-corrosive.

**Eye irritation:** Draize test in rabbits produced mild eye irritation effects. Many years of occupational exposure history reflects no indication of human eye injury from exposure to sodium polyborate.

**Ammonium sulfate:**

**Oral LD<sub>50</sub> (rat):** >5,000 mg/kg of body weight

**Dermal LD<sub>50</sub> (rabbit):** >2,000 mg/kg of body weight

**Inhalation LC<sub>50</sub> (rat):** >5.8 mg/L

**Dermal irritation/corrosivity:** Nonirritating, nonsensitizing.

**Eye irritation:** No information found.

**CHRONIC HEALTH HAZARDS:** No chronic effects from cellulose, PET, sodium polyborate, or ammonium sulfate have been reported in the literature. Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to inorganic borates and sodium borate dust.

**REPRODUCTIVE EFFECTS:** No reproductive effects from PET, sodium polyborate, or ammonium sulfate were found in the literature. Borate-treated cellulose insulation contains boric acid and cellulose fiber. Borate-treated cellulose insulation was tested for purposes of hazard classification under the Occupational Safety and Health Administration's 2012 Hazard Communication Standard.

In a study conducted under OECD Guideline 414, there were no developmental effects in rats exposed to up to 270 mg/m<sup>3</sup> (the highest exposure tested). In workers chronically exposed to high levels of borates for several years by way of inhalation, food, and drinking water, there was a clear absence of any reproductive effects.

**CARCINOGENICITY:** Cellulose, boric acid, sodium polyborate, PET, and ammonium sulfate are not listed as known or suspected carcinogens by OSHA, ACGIH, NTP, or IARC.

## SECTION 12 – ECOLOGICAL INFORMATION

**Cellulose:** No information found.

**Polyethylene terephthalate (PET):** No information found.

**Boron:** No information specific to boric acid was found in the literature. The following information is based on other boron compounds and normalized for boron.

**LC<sub>50</sub> (Water flea, *D. magna*):** 101.2 mg/L (48-hr)

**NOEC (Water flea, *D. magna*):** 5.7 mg/L (21-d)

**LC<sub>50</sub> (Rainbow trout, *O. mykiss*):** 351.7 mg boron/L (96-hr)

**LC<sub>50</sub> (Bluegill, *L. macrochirus*):** 4.6 mg boron/L (24-hr)

**Ammonium sulfate:**

**LC<sub>50</sub> (Water flea, *D. magna*):** 423 mg/L (25-hr)

**LC<sub>50</sub> (Water flea, *D. magna*):** >100 mg/L (96-hr)

**LC<sub>50</sub> (Rainbow trout, *O. mykiss*):** 1.56 mg/L (24-hr)

**LC<sub>50</sub> (Channel catfish, *I. punctatus*):** 36.7 mg/L (96-hr)

**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 biomagnify 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.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste disposal method:** Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Materials can be re-used for appropriate applications. Please contact CMS for further information.

**RCRA Hazard Class:** ECOCELL<sup>®</sup> Batts is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40) CFR 261 et seq.).

## SECTION 14 – TRANSPORT INFORMATION

**US Department of Transportation:** Not regulated.

## SECTION 15 – REGULATORY INFORMATION

**TSCA NO.:** ECOCELL<sup>®</sup> Batts does not appear on the EPA TSCA inventory list. Boric acid does appear on the EPA TSCA inventory list (10043-35-3)

**RCRA:** ECOCELL<sup>®</sup> Batts is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40) CFR 261 et seq.).

**SUPERFUND: CERCLA/SARA.** ECOCELL<sup>®</sup> Batts is not listed under CERCLA (the Comprehensive Environmental Response Compensation and Liability Act) or its 1986 amendments, SARA, (the Superfund Amendments and Reauthorization Act), including substances listed under Section 313 of SARA, Toxic Chemicals, 42 USC 11023, 40 CFR 372.65; Section 302 of SARA, Extremely Hazardous Substances, 42 USC 11002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.

**SAFE DRINKING WATER ACT:** ECOCELL<sup>®</sup> Batts 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.) ECOCELL<sup>®</sup> Batts is not itself a discharge covered by any water quality criteria of Section 304 of the CWA, 33 USC 1314
- b.) It is not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 129
- c.) It is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.

**OSHA/CAL OSHA:** This SDS document meets the requirements of both OSHA (29 CFR 1910.1200) and Cal OSHA (Title 8 CCR 5194(g)) hazard communication standards. Refer to Exposure Control/Personal Protection for regulatory exposure limits.

## SECTION 16 – OTHER INFORMATION

Other information: This SDS was finalized on June 1, 2015 and is compliant with OSHA HCS/HazCom 2012 Final Rule. This replaces the previous version dated January, 2010.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. Therefore, no warranty either express or implied of merchantability or fitness for particular purpose is made with respect to the product or the information contained herein.