# SAFETY DATA SHEET

**Applegate Stabilized Cellulose Insulation**

## Section 1. Identification

**Product name** : Applegate Stabilized Cellulose Insulation
**GHS product identifier** : Cellulose Insulation for Commercial and Residential Buildings.
**Product type** : Solid.

**Identified uses** : Blown insulations for buildings.

Material should not be applied where temperatures may exceed 180 degrees F. (i.e. Make sure duct work is sealed and maintain clearance around recessed lights, exhaust flues of furnaces and other heat producing devices, per National Electrical Code.)

**Supplier/Manufacturer** :

Paper and Ink of PA, LLC
1050 Superior Avenue
Chambersburg, PA 17201
Phone: 800-231-1939 717-709-0533
Fax: 717-709-0870

**Emergency telephone Number (within hours of operation)** : 800-627-7536

## Section 2. Hazards identification

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 9 0. 200), this SDS contains valuable information critical to the safe handling and proper use of the product this SDS should be retained and available for employees and other user of this product.

**Classification of the substance or mixture** : Not classified.

**GHS label elements**

**Signal word** : No signal word.
**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** : Obtain instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment per section 8.
**Response** : Seek medical attention if symptoms persist.
**Storage** : Not applicable.

## Section 2. Hazards identification

**Disposal** : Dispose material in accordance with all local, state, and federal regulations.

**Hazards not otherwise Classified (HNOC)** : Product is combustible when in dust form and not treated with fire retardant.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of Identification** : Not available.

**CAS number/other identifiers**

**CAS number** : Not applicable.

**Product code** : Not available.

| Ingredient name | % | CAS number |
|---|---|---|
| Boric acid | 1 – 7 | 10043-35-3 |

**Any concentration shown as a range is to protect confidentiality or is due to batch variation.**

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measure

**Description of necessary first aid measures**

**Eye Contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation persists.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms persist. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms persist.

**Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personal. Get medical attention if symptoms persist.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

## Section 4. First aid measure

**Over-exposure signs/symptoms**

**Eye contact** : No known significant effects or critical hazards.
**Inhalation** : No known significant effects or critical hazards.
**Skin contact** : No known significant effects or critical hazards.
**Ingestion** : No known significant effects or critical hazards.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours
**Specific treatment** : No specific treatment.
**Protection of first-aider** : No action shall be taken involving any personal risk or without suitable training.

**See toxicological information (Section 11)**

## Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

**Hazardous thermal Decomposition products** : Decomposition products may include the following materials:
Carbon dioxide
Carbon monoxide
Nitrogen oxides
Sulfur oxides

**Special protective actions for fire-fighters** : No special measures are required.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appreciate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**

**Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulation. Store in original container protected from direct sunlight in a dry, cool and well0ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

| Ingredient name | Exposure Limits |
|---|---|
| Boric acid | ACGIH TLV (United States, 4/2014).<br>STEL: 6 mg/m$^3$ 15 minutes. Form: Inhalable fraction<br>TWA: 2mg/m$^3$ 8 hours. Form: Inhalable fraction |

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## Section 8. Exposure controls/personal protection

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure.

**Skin protection**

**Hand protection** : Gloves complying with an approved standard should be worn at all times when handling chemical products is a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

**Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be bases on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Solid.
**Color** : Off brown to grey
**Order** : Odorless; possibly slight paper odor. [Slight]
**Odor threshold** : Not available.
**pH** : Not available.
**Melting point** : Not available.
**Boiling point** : Not available.
**Flash point** : Not available.
**Evaporation rate** : Not available.
**Lower and upper explosive (flammable) limits** : Not available.
**Vapor pressure** : Not available.
**Vapor density** : Not available.
**Relative density** : Not available.
**Solubility** : Not available.
**Partition coefficient: nocturnal/water** : Not available.
**Auto-ignition temperature** : Not available.
**Decomposition temperature** : Not available.
**Viscosity** : Not available.
**Volatility** : Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : See section 1.

**Incompatible materials** : Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: acids and alkalis.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

There is no data available.

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Boric Acid | Skin – Mild irritant | Human | - | 72 hours 15 mg Intermittent | - |

**Sensitization**

There is no data available.

**Carcinogenicity**

**Classification**

| Product/ingredient name | OSHA | IARC | NTP | ACGIH | EPA | NIOSH |
|---|---|---|---|---|---|---|
| Boric acid | - | - | **NTP** | A4 | - | - |
| Starch | - | - | | A4 | - | - |

**Specific target organ toxicity (single exposure)**

There is no data available.

**Specific target organ toxicity (repeated exposure)**

There is no data available.

**Aspiration hazard**

There is no data available.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.

## Section 11. Toxicological information

**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : No Known significant effects or critical hazards.

**Ingestion** : No Known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : No Known significant effects or critical hazards.

**Inhalation** : No Known significant effects or critical hazards.

**Skin contact** : No Known significant effects or critical hazards.

**Ingestion** : No Known significant effects or critical hazards.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : No Known significant effects or critical hazards.

**Potential delayed effects** : No Known significant effects or critical hazards.

**Long term exposure**

**Potential immediate effects** : No Known significant effects or critical hazards.

**Potential delayed effects** : No Known significant effects or critical hazards.

**Potential chronic health effects**

**General** : No Known significant effects or critical hazards.

**Carcinogenicity** : No Known significant effects or critical hazards.

**Mutagenicity** : No Known significant effects or critical hazards.

**Teratogenicity** : No Known significant effects or critical hazards.

**Developmental effects** : No Known significant effects or critical hazards.

**Fertility effects** : REPRODUCTIVE TOXICITY: 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/$m^3$ (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.

**Numerical measures of toxicity**

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Oral | 39937.5 mg/kg |

## Section 12. Ecological information

**Toxicity**

| Product/ingredient name | Results | Species | Exposure |
|---|---|---|---|
| Boric Acid | Acute LC50 84.28 mg/L Marine water | Crustaceans – Americamysis bahia – Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 133000 ug/L Fresh water | Daphnia – Daphnia magna – Neonate | 48 hours |
| | Acute LC50 100000 ug/L Fresh water | Fish – Ptychocheilus Lucius – Juvenile (Fledgling, Hatching, Weanling) | 96 hours |
| | Chronic NOEC 6000 ug/L Fresh water | Daphnia – Daphnia magna | 21 days |
| | Chronic NOEC 2000 ug/L Fresh water | Fish – Oncorhynious mykiss | 87 days |

**Persistence and degradability**

There is no data available.

**Bio accumulative potential**

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Boric acid | -1.09 | - | low |

**Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

| | DOT | IMDG | IATA |
|---|---|---|---|
| **UN number** | Not regulated. | Not regulated. | Not regulated. |
| **UN proper Shipping name** | - | - | - |
| **Transport hazard class(es)** | - | - | - |
| **Packing group** | - | - | - |
| **Environmental hazard** | No. | No. | No. |
| **Additional information** | - | - | - |

**AERG** : Not Applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined.
**United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**SARA 302/304**

**Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

## Section 15. Regulatory information

**SARA 311/312**

**Classification** : Not applicable.

**Composition/information on ingredients**

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---|---|---|---|---|---|
| Boric acid | 1-7 | No. | No. | No. | No. | Yes. |

**SARA 313**

| | Product name | CAS number | % |
|---|---|---|---|
| **Form R – Reporting requirements** | Ammonium sulfate | 7783-20-2 | 5 - 10 |
| **Supplier notification** | Ammonium sulfate | 7783-20-2 | 5 - 10 |

SARA 313 notifications must not be detached from the SDS and any coping and redistribution of the SDS shall include Copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

**Massachusetts** : The following components are listed: Ammonium sulfate; Starch

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Boric acid

**Pennsylvania** : The following components are listed: Ammonium sulfate; Starch

**California Prop. 65**

No products were found.

## Section 16. Other information

**History**

**Date of issue mm/dd/yyyy** : 06/15/2015

**Version** : 1

**Prepared by** : KMK Regulatory Services Inc.

**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bio concentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
Log Pow = Logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978. (“Marpol” = marine pollution)
UN = United Nation

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**
**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are they only hazards that exist.**

**Every word of God is pure; He is a shield to those who put their trust in Him. Proverbs 30:5**