MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: COMMERCIAL INSULATION

PRODUCT/TRADE NAME: CertaPro™ AcoustaTherm™ Batts (Unfaced & Kraft-Faced), CertaPro™ Partition Batts, CertaPro™ Thermal Kraft Faced Batts, CertainPro™ Thermal Foil Faced Batts, CertaPro™ Thermal FSK-25 Faced Batts, CertaPro™ Thermal Extended Flange Batts (FSK, White&Black PSK Faced), CertaPro™ AcoustaBoard™ Black, CertaPro™ AcoustaBlanket™ Black

PRODUCT DESCRIPTION: FIBER GLASS INSULATION

PRODUCT USE: Acoustical & Thermal Insulation

CHEMICAL NAME: Mixture

CAS NUMBER: None Assigned

EINECS: None Assigned

MOLECULAR FORMULA: No Data Available

Company Identification

CERTAINTEED CORPORATION
P.O. Box 860
Valley Forge, PA 19482
United States

WEB ADDRESS: www.certainteed.com

Phone Numbers

Technical Information: (610) 341-7000 - 9 AM – 5 PM (Eastern Time – USA)

Emergency: (800) 424-9300 - EMERGENCY TELEPHONE: CHEMTREC

Emergency: (703) 527-3887 - OUTSIDE OF THE U.S. CHEMTREC

PREPARATION DATE: 8/1/2003

LAST REVISION DATE: 10/27/2011

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

This product may cause temporary irritation to the upper respiratory system, eyes, and skin. Avoid inhalation, skin and eye contact as temporary irritation may occur. Wear appropriate personal protective equipment as described in Section 8.
Temporary eye, skin, and respiratory irritation may occur. Avoid breathing dust, fume, gas, mist, vapors and/or spray. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Wear protective gloves.

GHS: Skin Irritation - Category 3, Eye Irritation - Category 2B

NFPA/HMIS RATINGS:

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA RATING:</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HMIS RATING:</td>
<td>1*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Degree of Hazard
0 - Minimal (Insignificant)
1 - Slight
2 - Moderate
3 - Serious (High)
4 - Severe (Extreme)
* - Chronic Health Effect(s)

PHYSICAL FORM: Solid

COLOR: Yellow

ODOR: Faint resin odor

HAZARDS: Mild/Slight Irritant, Mechanical Irritant

ROUTE OF ENTRY: Inhalation, Skin/Dermal, Eye/Ocular

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing conditions which may be aggravated by mechanical irritants upon inhalation or skin contact.

POTENTIAL HEALTH EFFECTS:

INHALATION:
ACUTE (IMMEDIATE): Temporary irritation of nose and throat may occur.
CHRONIC (DELAYED): Use of these products has not been shown to cause cancer in humans. Fiber glass wool is a possible cancer hazard. Fiber glass wool has caused cancer in animals but has not produced cancer by inhalation.

SKIN:
ACUTE (IMMEDIATE): Temporary irritation of the skin may occur in some individuals.
CHRONIC (DELAYED): No data available

EYE:
ACUTE (IMMEDIATE): Temporary irritation or redness may occur.
CHRONIC (DELAYED): No data available

INGESTION:
ACUTE (IMMEDIATE): Ingestion of this product unlikely.
CHRONIC (DELAYED): No data available

MUTAGENIC EFFECTS: None

CARCINOGENIC EFFECTS: This product contains glass wool insulation fibers. Following a thorough review of all the medical-scientific data available at a meeting in October 2001, the IARC panel lowered the classification for glass wool insulation fibers from a Group 2B classification ("possibly carcinogenic to humans") to a Group 3 classification ("not classifiable as to carcinogenicity to humans"). IARC said that there is "no evidence of increased risks of lung cancer or of mesothelioma from occupational exposures during manufacturing of these materials, and inadequate evidence over all of any cancer risk." This product contains antimony trioxide which is listed by IARC as Possibly Carcinogenic to Humans – Group 2B. This product contains Acetic acid ethenyl homopolymer and is classified by IARC as Group 3 – Not Classifiable as to Carcinogenicity to Humans.

REPRODUCTIVE EFFECTS: None

OTHER HEALTH EFFECTS: WARNING: To avoid danger of suffocation, do not place the plastic bag within reach of babies and children.

See Section 12 for Ecological Information

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Product(s) Containing Component</th>
<th>Chemical Name</th>
<th>CAS</th>
<th>% (weight)</th>
<th>UN: EINICS</th>
<th>LD50/LC50</th>
<th>EU</th>
<th>OSHA PEL/TWA</th>
<th>ACGIH TLV/TWA</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>For CertaPro Acousta Therm Kraft Faced Batts adhesive contains:</td>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>0% TO 17%</td>
<td>NA1999; 232-490-9</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>0.5 mg/m3</td>
<td>None</td>
</tr>
<tr>
<td>For CertainPro Thermal Foil Faced Batts, CertaPro Thermal FSK-25 Faced Batts, CertaPro Thermal Extended Flange Batts (FSK, White&amp;Black PSK Faced), CertaPro AcoustaBoard Black, CertaPro AcoustaBlanket Black:</td>
<td>Fibrous glass</td>
<td>65997-17-3</td>
<td>97%</td>
<td>266-046-0</td>
<td>NDA</td>
<td>NDA</td>
<td>1f/cc (continuous filament glass fibers)</td>
<td>1f/cc (respirable fibers)</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td>For CertaPro Acousta Therm Batts (Unfaced &amp; Kraft-Faced), CertaPro Partition Batts, CertaPro Thermal Kraft Faced Batts, CertainPro Thermal Foil Faced Batts, CertaPro Thermal FSK-25 Faced Batts, CertaPro Thermal Extended Flange Batts (FSK, White&amp;Black PSK Faced), CertaPro AcoustaBoard Black, CertaPro AcoustaBlanket Black:</td>
<td>Phenol, polymer with formaldehyde and urea</td>
<td>25104-55-6</td>
<td>3% TO 11%</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Product(s) Containing Component</td>
<td>Chemical Name</td>
<td>CAS</td>
<td>%(weight)</td>
<td>UN/EINECS</td>
<td>LD50/LC50</td>
<td>EU</td>
<td>OSHA PEL/TWA</td>
<td>ACGIH TLV/TWA</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
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</tr>
<tr>
<td>For CertaPro Commercial Board Insulation FSK &amp; ASJ adhesive contains:</td>
<td>Acetic acid, vinyl ester, polymer</td>
<td>9003-20-7</td>
<td>&lt; 11%</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>For CertaPro Commercial Board Insulation FSK and ASJ adhesive contains:</td>
<td>Acetic acid, ethenyl ester, polymer with ethene, rubber</td>
<td>24937-78-8</td>
<td>&lt; 7%</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>For CertaPro AcoustBlanket Black:</td>
<td>Acrylic-based polymer</td>
<td>Proprietary</td>
<td>&lt; 5%</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>For ASJ faced products:</td>
<td>Poly(oxyethyleneoxyterephthaloyl)</td>
<td>25038-59-9</td>
<td>5%</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Coated/Faced Products contain:</td>
<td>Antimony trioxide</td>
<td>1309-64-4</td>
<td>3%</td>
<td>215-175-0</td>
<td>NDA</td>
<td>Carc. Cat. 3; R40</td>
<td>0.5 mg/m3</td>
<td>0.5 mg/m3</td>
<td>0.5 mg/m3</td>
</tr>
<tr>
<td>Coated Products contain:</td>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>&lt; 1.5%</td>
<td>215-691-6</td>
<td>NDA</td>
<td>NDA</td>
<td>Nuisance dust: 15 mg/m3</td>
<td>10 mg/m3</td>
<td>Fume: 1.5 mg/m3</td>
</tr>
<tr>
<td>Coated Products contain:</td>
<td>Clay (kaolin)</td>
<td>1332-58-7</td>
<td>1.5</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
<td>Nuisance dust: 15 mg/m3</td>
<td>2 mg/m3</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

This product is considered Hazardous under 29 CFR 1910.1200 (Hazard Communication). This product may be regulated, have exposure limits or other information identified as the following: Fibrous Glass In Canada, these products are considered Hazardous under the Workplace Hazardous Materials Information System (WHMIS). According to the Globally Harmonized Standard for Classification and Labeling (GHS) this product is considered Hazardous

See Section 11 for Toxicological Information

### SECTION 4 - FIRST AID MEASURES

**INHALATION:** Remove to fresh air, apply artificial respiration and/or oxygen if necessary and get medical attention.

**SKIN:** Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.

**EYE:** Do not rub or scratch your eyes. If irritation persists get medical attention. In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes.

**INGESTION:** Consult a physician if unusual reaction is noted. Product is not intended nor is it likely to be ingested or eaten.

**NOTES TO PHYSICIAN:** Skin irritation responds well to mild hydrocortisone cream.

See Section 2 for Potential Health Effects

### SECTION 5 - FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Use any media suitable for the surrounding fires

**UNSUITABLE EXTINGUISHING MEDIA:** No data available

**FIREFIGHTING PROCEDURES:** Fire fighters should avoid inhaling any combustion products. Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** These products contain a cured phenolic-based binder and various facings which contain retardant systems to reduce the possibility of fire. If burned, the materials could release toxic fumes as described below. The binder and kraft facings in a fire situation may emit toxic fumes and smoke containing carbon dioxide, carbon monoxide, sulfur dioxide and other potentially toxic volatile organic compounds. The FSK facings may decompose and release carbon monoxide, carbon dioxide, hydrogen chloride, chlorine gas, antimony and traces of arsenic, oxides of arsenic and oxides of nitrogen. The ASJ facing may decompose and release carbon monoxide, carbon dioxide, hydrogen chloride, chlorine gas, antimony and traces of arsenic, oxides of arsenic, bromine gas and hydrogen bromide. The airstream facings may release carbon monoxide, carbon dioxide, antimony, hydrogen bromide, formaldehyde and trace hydrogen cyanide.

**HAZARDOUS COMBUSTION PRODUCTS:** The FSK facings may decompose and release carbon monoxide, carbon dioxide, hydrogen chloride, chlorine gas, antimony and traces of arsenic, oxides of arsenic and oxides of nitrogen. The ASJ facing may decompose and release carbon monoxide, carbon dioxide, hydrogen chloride, chlorine gas, antimony and traces of arsenic, oxides of arsenic, bromine gas and hydrogen bromide. The airstream facings may release carbon monoxide, carbon dioxide, antimony, hydrogen bromide, formaldehyde and trace hydrogen cyanide.

**FLASH POINT:** NA  
**FLASH POINT TEST TYPE:** N/A  
**EXPLOSION LIMITS**  
| Upper: N/A | Lower: N/A |

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:** Avoid contact with skin and eyes during clean-up.

**EMERGENCY PROCEDURES:** Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Ventilate the contaminated area.

**CONTAINMENT/CLEAN-UP MEASURES:** Containment of this material should not be necessary. Remove sources of ignition. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Avoid the generation of dusts during clean-up.

**SECTION 7 - HANDLING AND STORAGE**

**HANDLING:** Do not breathe dust from this material. Keep this product from heat, sparks, or open flame. Use this product with adequate ventilation. Always wash work clothes separately from other clothing. Wipe out the washer or sink to prevent loose glass fibers from getting onto other clothing. Wash thoroughly after handling. Use personal protective equipment as described in Section 8.

**STORAGE:** Store in a dry place and under cover to protect product.
SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

PPE:

RESPIRATORY PROTECTION: A properly fitted NIOSH approved N 95 series disposable dust respirator such as a 3M Brand #8210, #8511, #8233 or equivalent, in high humidity environments should be used when: high dust levels are encountered; the level of glass fibers in the air exceeds the occupational exposure limits; or if irritation occurs.

RESPIRATORS: Wear NIOSH-certified respirators when handling and applying fiber glass insulation products in accordance with established exposure guidelines:

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Respirator (or equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 times exposure guideline</td>
<td>1/2 mask N95 or higher, such as 3M Brand #8210, #8511 or #8233</td>
</tr>
<tr>
<td>Less than 50 times exposure guideline</td>
<td>Full face N100 or higher, such as 3M Brand 6000 or 7000 series</td>
</tr>
</tbody>
</table>

EYE/FACE PROTECTION: Safety glasses with side shields should be worn at a minimum. In dusty environments chemical goggles should be worn.

SKIN/BODY PROTECTION: Work clothing sufficient to prevent all skin contact should be worn, such as coveralls, long sleeves and cap.

GENERAL INDUSTRIAL HYGIENE CONSIDERATIONS: Use good industrial hygiene practices in handling this material. Availability of eye wash fountains are recommended.

ENGINEERING MEASURES/CONTROLS: Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. Avoid spread of fiber glass dust.

LISTED EXPOSURE LIMITS:

US State California
- Clay (kaolin) (1332-58-7): PELs: (2 mg/m³ PEL (respirable dust containing no asbestos and < 1% crystalline silica)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen) | TLV Basis - Critical Effects: (pneumoconiosis)
- Asphalt (8052-42-4): PELs: (5 mg/m³ PEL) | Carcinogens: (A2 - Suspected Human Carcinogen (production)) | TLV Basis - Critical Effects: (cancer (lung, antimony trioxide production); pneumoconiosis (antimony trioxide production)) | No Adopted Value: (Exposure by all routes should be carefully controlled to levels as low as possible (production))
- Antimony oxide (1309-64-4): Carcinogens: (A2 - Suspected Human Carcinogen (production)) | TLV Basis - Critical Effects: (cancer (lung, antimony trioxide production); pneumoconiosis (antimony trioxide production)) | No Adopted Value: (Exposure by all routes should be carefully controlled to levels as low as possible (production))

United States - ACGIH
- Clay (kaolin) (1332-58-7): TWAs: (2 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and < 1% crystalline silica)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen) | TLV Basis - Critical Effects: (pneumoconiosis)
- Antimony oxide (1309-64-4): Carcinogens: (A2 - Suspected Human Carcinogen (production)) | TLV Basis - Critical Effects: (cancer (lung, antimony trioxide production); pneumoconiosis (antimony trioxide production)) | No Adopted Value: (Exposure by all routes should be carefully controlled to levels as low as possible (production))
- Asphalt (8052-42-4): TWAs: (0.5 mg/m³ TWA (inhalable fraction, as benzene-soluble aerosol)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen (as benzene soluble aerosol)) | TLV Basis - Critical Effects: (irritation (as benzene-soluble aerosol))
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen) | TLV Basis - Critical Effects: (lung; irritation)

LISTED EXPOSURE LIMITS:
United States – OSHA
- Clay (kaolin) (1332-58-7): TWAs: (15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)) | TWAs: (10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction))
- Aluminum oxide (1344-28-1): TWAs: (15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)) | TWAs: (10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction))

United States - NIOSH
- Clay (kaolin) (1332-58-7): TWAs: (10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust))
- Asphalt (8052-42-4): Ceiling Limits: (5 mg/m³ Ceiling (15 min, fumes))

Canada – British Columbia
- Fibrous Glass (65997-17-3): 1 fibre/cm³ TWA (fibers longer than 5 µm, with an aspect ratio of equal to/greater than 3:1) (related to Glass wool fibers)
- Clay (kaolin) (1332-58-7): TWAs: (2 mg/m³ TWA (respirable, particulate matter containing no asbestos and less than 1% crystalline silica))
- Antimony oxide (1309-64-4): Carcinogens: (ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 2B - Possible Human Carcinogen) | Designated Substances: (ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 2B - Possible Human Carcinogen; Exposure by all routes should be carefully controlled to levels as low as possible)
- Asphalt (8052-42-4): TWAs: (0.5 mg/m³ TWA (fume, as inhalable benzene-soluble aerosol)) | Carcinogens: (IARC Category 2B - Possible Human Carcinogen) | Designated Substances: (IARC Category 2B - Possible Human Carcinogen)
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA (particulate matter containing no asbestos and less than 1% crystalline silica))

Canada – Manitoba
- Fibrous Glass (65997-17-3): 1 fibre/cm³ TWA (respirable fibers, length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination) (related to Glass wool fibers)
- Clay (kaolin) (1332-58-7): TWAs: (10 mg/m³ TWA (The value is for total dust containing no asbestos and < 1% crystalline silica))
- Antimony oxide (1309-64-4): TWAs: (0.5 mg/m³ TWA (Handling and use, as Sb)) | Carcinogens: (A2 - Suspected Human Carcinogen (production))
- Asphalt (8052-42-4): TWAs: (5 mg/m³ TWA (petroleum))
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA (as Al, the value is for total dust containing no asbestos and < 1% crystalline silica))

Canada – New Brunswick
- Fibrous Glass (65997-17-3): 1 fibre/cm³ TWA (fibers longer than 5 µm with a diameter less than 3 µm, aspect ratio greater than 5:1) (related to Glass wool fibers)
- Clay (kaolin) (1332-58-7): TWAs: (2 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica, respirable fraction)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen)
- Antimony oxide (1309-64-4): Carcinogens: (A2 - Suspected Human Carcinogen (production))
- Asphalt (8052-42-4): TWAs: (5 mg/m³ TWA (petroleum)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen)
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica))

Canada – Northwest Territories
- Fibrous Glass (65997-17-3): 3 fibres/cm³ TWA (with a diameter <=3.5 µm and a length =>10 µm); 5 mg/m³ TWA (total mass) (related to Mineral wool fiber)
- Clay (kaolin) (1332-58-7): TWAs: (5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass))
- Antimony oxide (1309-64-4): TWAs: (0.5 mg/m³ TWA (production, handling and use, as Sb)) | STELs: (1.5 mg/m³ STEL (production, handling and use, as Sb))
- Asphalt (8052-42-4): TWAs: (5 mg/m³ TWA) | STELs: (10 mg/m³ STEL)
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA; 5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass)) | STELs: (20 mg/m³ STEL)

Canada – Nova Scotia
- Fibrous Glass (65997-17-3): 1 fibre/cm³ TWA (respirable fibers, length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination) (related to Glass wool fibers)
- Clay (kaolin) (1332-58-7): TWAs: (2 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and < 1% crystalline silica)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen)
- Antimony oxide (1309-64-4): Carcinogens: (A2 - Suspected Human Carcinogen (production))
- Asphalt (8052-42-4): TWAs: (0.5 mg/m³ TWA (inhaalable fraction, as benzene-soluble aerosol)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen (as benzene soluble aerosol))
- Aluminum oxide (1344-28-1): TWAs: (10 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica)) | Carcinogens: (A4 - Not Classifiable as a Human Carcinogen)
LISTED EXPOSURE LIMITS:

Canada – Nunavut
- Fibrous Glass (65997-17-3): 3 fibre/cm³ TWA (with a diameter <=3.5 µm and a length >=10 µm); 5 mg/m³ TWA (total mass) (related to Mineral wool fiber)
- Clay (kaolin) (1332-58-7): **TWA**: (5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass))
- Antimony oxide (1309-64-4): **TWA**: (0.5 mg/m³ TWA (production, handling and use, as Sb)) | **STELs**: (1.5 mg/m³ STEL (production, handling and use, as Sb))
- Asphalt (8052-42-4): **TWA**: (5 mg/m³ TWA) | **STELs**: (10 mg/m³ STEL)
- Aluminum oxide (1344-28-1): **TWA**: (10 mg/m³ TWA; 5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass)) | **STELs**: (20 mg/m³ STEL)

Canada – Ontario
- Fibrous Glass (65997-17-3): 1 fibre/cm³ TWAEV (respirable, length>5 microns, aspect ratio>= 3.1) (related to Glass wool fibers)
- Clay (kaolin) (1332-58-7): **TWAEVs**: (2 mg/m³ TWAEV (respirable, containing no asbestos and less than 1% crystalline silica))
- Antimony oxide (1309-64-4): **TWAEVs**: (0.5 mg/m³ TWAEV (handling and use, as Sb))
- Asphalt (8052-42-4): **TWAEVs**: (5 mg/m³ TWAEV (fumes))
- Aluminum oxide (1344-28-1): **TWAEVs**: (10 mg/m³ TWAEV (total dust))

Canada – Quebec
- Fibrous Glass (65997-17-3): 2 fibres/cm³ TWAEV (respirable) (related to Insulation wool fibers, glass wool)
- Clay (kaolin) (1332-58-7): **TWAEVs**: (10 mg/m³ TWAEV (total dust, dust containing no asbestos and less than 1% crystalline silica))
- Antimony oxide (1309-64-4): **TWAEVs**: (0.5 mg/m³ TWAEV (as Sb)) | **Carcinogens**: (C3 carcinogen - effect detected in animals)
- Asphalt (8052-42-4): **TWAEVs**: (5 mg/m³ TWAEV (fume))
- Aluminum oxide (1344-28-1): **TWAEVs**: (10 mg/m³ TWAEV (total dust, dust containing no asbestos and less than 1% crystalline silica, as Al))

Canada – Yukon
- Fibrous Glass (65997-17-3): 30 mppcf TWA; 10 mg/m³ TWA (respirable mass) (related to Mineral wool fiber)
- Clay (kaolin) (1332-58-7): **TWA**: (30 mppcf TWA; 10 mg/m³ TWA) | **STELs**: (20 mg/m³ STEL)
- Asphalt (8052-42-4): **TWA**: (5 mg/m³ TWA) | **STELs**: (10 mg/m³ STEL (fume))
- Aluminum oxide (1344-28-1): **TWA**: (30 mppcf TWA; 10 mg/m³ TWA) | **STELs**: (20 mg/m³ STEL)
**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL FORM:** Solid

**APPEARANCE/DESCRIPTION:** Fibers assembled into blankets or loose fill. The blankets may be faced with kraft, aluminum foil or other facings.

<table>
<thead>
<tr>
<th>Color: Yellow</th>
<th>ODOR: Faint resin odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASTE: No data available</td>
<td>ODOR THRESHOLD: NDA</td>
</tr>
<tr>
<td>BOILING POINT:</td>
<td>NDA</td>
</tr>
<tr>
<td>MELTING POINT/FREEZING POINT:</td>
<td>NDA</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY:</td>
<td>2.5</td>
</tr>
<tr>
<td>DENSITY:</td>
<td>20.8625 lbs/gal</td>
</tr>
<tr>
<td>BULK DENSITY:</td>
<td>NDA</td>
</tr>
<tr>
<td>WATER SOLUBILITY:</td>
<td>Slightly Soluble</td>
</tr>
<tr>
<td>SOLVENT SOLUBILITY:</td>
<td>NDA</td>
</tr>
<tr>
<td>VISCOSITY:</td>
<td>@</td>
</tr>
<tr>
<td>HALF-LIFE:</td>
<td>NDA</td>
</tr>
<tr>
<td>OCTANOL/WATER PARTITION COEFFICIENT:</td>
<td>NDA</td>
</tr>
<tr>
<td>COEFFICIENT OF WATER/OIL DISTRIBUTION:</td>
<td>NDA</td>
</tr>
<tr>
<td>BIOACCUMULATION FACTOR:</td>
<td>NDA</td>
</tr>
<tr>
<td>PH:</td>
<td>NDA</td>
</tr>
</tbody>
</table>

| VAPOR PRESSURE: | NDA |
| VAPOR DENSITY: | NDA |
| EVAPORATION RATE: | NDA |
| VOC (WT.): | NDA |
| VOC (VOL.): | NDA |
| VOLATILES (WT.): | NDA |
| VOLATILES (VOL.): | NDA |
| FLASH POINT: | NDA |
| FLASH POINT TEST TYPE: | NDA |
| UEL: | NDA |
| LEL: | NDA |
| AUTOIGNITION: | NDA |

**SECTION 10 - STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal conditions. This material is not sensitive to mechanical impact or static discharge.

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization not indicated.

**CONDITIONS TO AVOID:** Keep away from heat, ignition sources and incompatible materials.

**INCOMPATIBLE MATERIALS:** Hydrofluoric acid (7664-39-3)

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition may occur generating toxic fumes/vapors, oxides of carbon (COx), oxides of nitrogen (NOx).
SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Temporary irritation may be observed in the upper respiratory system, eyes, and skin. This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

CARCINOGENIC EFFECTS: This product contains glass wool insulation fibers. Following a thorough review of all the medical-scientific data available at a meeting in October 2001, the IARC panel lowered the classification for glass wool insulation fibers from a Group 2B classification ("possibly carcinogenic to humans") to a Group 3 classification ("not classifiable as to carcinogenicity to humans"). IARC said that there is "no evidence of increased risks of lung cancer or of mesothelioma from occupational exposures during manufacturing of these materials, and inadequate evidence over all of any cancer risk."

COMPONENT CARCINOGENICITY:

Fiberglass mat, which is made from either: Continuous filament fiber glass (encapsulated) or Fibrous glass (65997-17-3):

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 - Confirmed animal carcinogen with unknown relevance to humans (related to Glass wool fibers)</td>
<td>Reasonably Anticipated To Be A Carcinogen (respirable size) (related to Glass wool) (Possible Select Carcinogen)</td>
<td>Monograph 81 [2002] (listed under Man-made mineral fibers), Monograph 43 [1988] (related to Insulation glass wool) (Group 3 (not classifiable))</td>
</tr>
</tbody>
</table>

Antimony trioxide (1309-64-4):

<table>
<thead>
<tr>
<th>OSHA</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Group 2B- Possibly carcinogenic to humans – 2B</td>
</tr>
</tbody>
</table>

Acetic Acid ethenyl ester homopolymer (24937-78-8):

<table>
<thead>
<tr>
<th>OSHA</th>
<th>NTP</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Group 3 – Not classifiable as to carcinogenicity to humans</td>
</tr>
</tbody>
</table>
SECTION 12 - ECOLOGICAL INFORMATION

PRODUCT INFORMATION: Binder-coated fiber glass is hydrophobic. Therefore, no adverse environmental effects would be expected if this product were accidentally released in the water or soil. This material is not expected to be harmful to aquatic life.

This product is not manufactured with, nor does it contain any Class I Ozone depleting chemicals as defined by EPA in Title VI of the Clean Air Act Amendments of 1990 40 CFR Part 82, Protection of Stratospheric Ozone. This product is not classified as a hazardous air pollutant in Title III Clean Air Act of 1990.

ECOLOGICAL FATE: No information available for the product.

PERSITANCE/DEGRADABILITY: No information available for the product.

SECTION 13 - DISPOSAL CONSIDERATIONS

PRODUCT: Dispose of waste material in an approved landfill in accordance with federal, state, and local regulations. If you are unsure of the regulations, contact your Public Health Department, or the local office of the Environmental Protection Agency (EPA). See Section 7 for Handling Procedures; see Section 8 for Personal Protective Equipment recommendations.

SECTION 14 - TRANSPORTATION INFORMATION

U.S. DOT 49 CFR 172.101:
SHIPPING NAME: Not Classified as a Hazardous Material for Transport

TDG - CANADA - TRANSPORT OF DANGEROUS GOODS:
SHIPPING NAME: Not Classified as a Dangerous Good for Transport

SECTION 15 - REGULATORY INFORMATION

SARA HAZARD CLASSIFICATIONS:
Acute Health: Yes  Chronic Health: Yes  Fire: No  Pressure: No  Reactive: No

US FEDERAL:
GENERAL PRODUCT INFORMATION:
Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are either exempt from listing (i.e. polymers, hydrates) or are listed on the confidential inventory as declared by the supplier.

CERCLA:
This material does not contain chemicals required to be identified under CERCLA (40 CFR 302.4).
**STATE REGULATIONS:**

**COMPONENT ANALYSIS - STATE:**

The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiberglass mat, which is made from either: Continuous filament fiber glass (encapsulated) or Fibrous glass (<em>related to Mineral wool fiber</em>)</td>
<td>65997-17-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Antimony Trioxide</td>
<td>1309-64-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clay (kaolin)</td>
<td>1332-58-7</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT (PROPOSITION 65):**

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

**WARNING!**

This product contains a chemical known to the state of California to cause cancer.

**CANADIAN WHMIS INFORMATION:**

**GENERAL PRODUCT INFORMATION:**

Not classified

**COMPONENT ANALYSIS - WHMIS IDL:**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List: None

**ADDITIONAL REGULATORY INFORMATION:**

**GENERAL PRODUCT INFORMATION:**

No information available for the product.

**COMPONENT ANALYSIS – INVENTORY:**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiberglass mat, which is made from either: Continuous filament fiber glass (encapsulated) or Fibrous glass</td>
<td>65997-17-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Antimony Trioxide</td>
<td>1309-64-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clay (kaolin)</td>
<td>1332-58-7</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
SECTION 16 - OTHER INFORMATION

PREPARATION DATE: 2/1/2009

LAST REVISION DATE: 8/1/2003

DISCLAIMER: Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

For reference to the acronyms/definitions used in this MSDS please visit www.certainteed.com.

MSDS HISTORY:

MSDS REVISION SUMMARY:

<table>
<thead>
<tr>
<th>Date</th>
<th>MSDS No.</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/16/1999</td>
<td>CT 10053-1</td>
<td>• New MSDS</td>
</tr>
<tr>
<td>10/26/2001</td>
<td>CT 10053-2</td>
<td>• Revised MSDS</td>
</tr>
<tr>
<td>8/01/2003</td>
<td>CT 10053-3</td>
<td>• Revised MSDS</td>
</tr>
<tr>
<td>6/12/2009</td>
<td>CT10137-1</td>
<td>• MSDS number change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MSDS format change (new ANSI Z400.2004 &amp; GHS v.2007 format)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Section 2 – GHS (v. 2007) Classifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Section 3 – Asphalt (8052-42-4) ACGIH TLV changed from 5 to 0.5 mg/m3</td>
</tr>
<tr>
<td>4/21/2010</td>
<td>CT10137-1</td>
<td>• Updated CT Logo</td>
</tr>
<tr>
<td>9/22/2011</td>
<td>CT 10137-2</td>
<td>• Correction to Typographical error</td>
</tr>
<tr>
<td>10/27/2011</td>
<td>CT 10137-3</td>
<td>• Add Product Literature Code</td>
</tr>
</tbody>
</table>

This is the end of MSDS # CT 10137-3