1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: Premium Unbonded Blowing Wools

Trade Names: InsulSafe ®
InsulSafe® SP
InsulSafe® XC
Northern White
OPTIMA ®
TrueComfort ™
TrueComfort ™ - Canada
UltraComfort ™

Chemical Name: Mixture
CAS #: None Assigned
Common Name: Fiber Glass Insulation
Product Use: Thermal Insulation
Product Literature Code: 30-24-235

MANUFACTURER INFORMATION: CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482-0101
(610) 341-7000  9 AM – 5 PM
CertainTeed-EHS@saint-gobain.com

EMERGENCY TELEPHONE: CHEMTREC (800) 424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-17-3</td>
<td>Fiber Glass</td>
<td>99% maximum</td>
</tr>
<tr>
<td>64742-65-0 or 64742-54-7</td>
<td>Distillates (petroleum), solvent dewaxed and/or hydrotreated heavy paraffinic</td>
<td>2.7% maximum</td>
</tr>
</tbody>
</table>

Component Information/Information on Non-Hazardous Components
These products are considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).
This product is a controlled product under Canadian WHMIS regulations.
3. HAZARD IDENTIFICATION

Emergency Overview
May cause temporary irritation to the upper respiratory system, skin and eyes; may cause gastrointestinal irritation if ingested.

Routes of Exposure: Inhalation, skin, and eye contact.

Potential Health Effects: Eyes
Contact with the eye may result in temporary irritation. Symptoms may include tearing and redness.

Potential Health Effects: Skin
Contact with the skin may be temporarily irritating to some individuals.

Potential Health Effects: Ingestion
Ingestion of this product is unlikely. Contact a physician if unusual reaction is noted.

Potential Health Effects: Inhalation
Inhalation of this product may cause temporary irritation of the upper respiratory tract.

Medical Conditions Aggravated by Exposure
Medical conditions that may be aggravated by exposure could include any pre-existing conditions which may be aggravated by mechanical irritants upon inhalation or skin contact.

HMIS Ratings: Health: 1* Fire: 0 Physical Hazard: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe  * = Chronic hazard

4. FIRST AID MEASURES

First Aid: Eyes
Do not rub eyes, as fibers may scratch the eye. Immediately flush eyes with large amounts of water for at least 15 minutes. If irritation persists, seek medical attention.

First Aid: Skin
Wash exposed areas with soap and water. If irritation develops or persists, seek medical attention. Skin irritation responds well to mild hydrocortisone cream.

First Aid: Ingestion
Ingestion of this product is unlikely. If ingested, do not induce vomiting. If an unusual reaction is noted, contact a physician.

First Aid: Inhalation
If the product is inhaled, remove the affected person to fresh air. If irritation persists, seek medical attention.
5. FIRE FIGHTING MEASURES

General Fire Hazards
See Section 9 for Flammability Properties. Product does not support combustion.

Hazardous Combustion Products
A non-hazardous mineral oil dust suppressant additive in the product may emit carbon monoxide as a decomposition product.

Extinguishing Media
Use extinguishing media appropriate for surrounding fire.

Fire Fighting Equipment/Instructions
Standard fire fighting protective equipment appropriate for surrounding fire may be used.

NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

Containment Procedures
Wear appropriate personal protective equipment.

Clean-Up Procedures
Vacuum dust deposits. Place in an appropriate container for disposal. Avoid generating dust during clean-up. Dispose of in accordance with Federal, State and local regulations in a permitted waste management facility.

Evacuation Procedures
Not expected to be an issue.

7. HANDLING AND STORAGE

Handling Procedures
When handling and/or applying this product:
- Wear long sleeves and general purpose work gloves (canvas, leather or other);
- Wear eye protection such as goggles, safety glasses or face shield;
- When necessary, use a NIOSH-approved respirator with an efficiency of N95 or higher;

After handling and/or applying this product:
- Wash with soap and warm water
- Wash work clothes separately and rinse washer after use

Storage Procedures
Store these products in a cool, dry, well-ventilated area, under cover.
8. EXPOSURE CONTROL / PERSONAL PROTECTION

A: Component Exposure Limits

Fiber Glass (65997-17-3)
- **OSHA PEL:** 15 mg/m$^3$ (as total nuisance dust); 5 mg/m$^3$ (as respirable nuisance dust)
- **ACGIH TLV:** 1 f/cc 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)
- **NIOSH REL:** 5 mg/m$^3$ as total fibrous glass, or 3 f/cc TWA (fibers <=3.5 µm in diameter and >=10 µm in length)
- **NAIMA:** 1 f/cc (HSPP Voluntary Recommended Exposure Limit)

Distillates (petroleum), solvent dewaxed and/or hydrotreated heavy paraffinic (64742-65-0 or 64742-54-7))
- **OSHA PEL:** 500 ppm (as petroleum distillates); 5 mg/m$^3$ (as oil mist, mineral)
- **ACGIH TLV:** 5 mg/m$^3$ (as oil mist, mineral)
- **NIOSH REL:** 350 mg/m$^3$ (as petroleum distillate); 5 mg/m$^3$ (as oil mist, mineral)

Engineering Controls
Avoid spread of fiber glass dust. Provide adequate general and/or local exhaust ventilation to maintain worker exposures below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: General
Use appropriate personal protective equipment when handling this product.

Personal Protective Equipment: Eyes/Face
Safety glasses with side shields or chemical goggles are recommended to prevent fibers from contacting the eyes.

Personal Protective Equipment: Skin
Wear protective general purpose work gloves (canvas, leather or other type), long pants and long-sleeved shirts to prevent against skin contact.

Personal Protective Equipment: Respiratory
Use appropriate NIOSH-approved respiratory protection, such as a single-use dust/mist respirator (N95) when installing this product. For higher fiber concentrations, a full-face respirators, equipped with high-efficiency particulate air (HEPA) filters may be necessary.

Personal Protective Equipment: Other
Use of a hard hat is recommended in attics to prevent against injury from protruding nails overhead. The use of hearing protection is recommended when working in close proximity to insulation blowing equipment.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White, unbonded glass fibers</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>2200°F/1200°C</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Glass = 2.5</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
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</tr>
<tr>
<td>Upper Flammability Limit</td>
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</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Auto Ignition Temp.</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical Stability: Stable under normal conditions.

Chemical Stability: Conditions to Avoid - Keep away from incompatible materials.

Incompatibility: Products are incompatible with hydrofluoric acid.

Hazardous Decomposition
A non-hazardous mineral oil dust suppressant additive in the product may emit carbon monoxide as a decomposition product.

Possibility of Hazardous Reactions: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Dose Effects

A: General Product Information
Exposure to these products may cause temporarily irritation to the upper respiratory system, skin and eyes.

Repeated Dose Effects: No information available for the product.

Carcinogenicity

A: General Product Information: No information available for the product.

B: Component Carcinogenicity

Fiber Glass (65997-17-3)

ACGIH: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
IARC: Group 3 (Not Classifiable As To Carcinogenicity To Humans) (Monograph 81 (2002))
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)

In 2001, following a review of all of the medical and scientific data available, the International Agency on Research on Cancer (IARC), re-classified glass wool insulation fibers from a Group 2B (“Possibly Carcinogenic to Humans”) to a Group 3 classification (“Not Classifiable As To Carcinogenicity to Humans”). In issuing this finding, IARC stated that “there is no evidence of
increased risks of lung cancer or of mesothelioma from occupational exposures during the manufacture of these materials, and inadequate evidence overall of any cancer risk”.


**Mutagenicity:** No information available for the product.

**Teratogenicity:** No information available for the product.

**Developmental Effects:** No information available for the product.

### 12. ECOLOGICAL INFORMATION

**A: General Product Information**

No information available for this product.

**B: Component Analysis**

No information available for the components of this product.

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.

Fiber glass is hydrophobic, therefore, no adverse environmental effects would be expected if this product were accidentally released in the water or soil. No harm to fish or wildlife would be caused by this product.

CertainTeed’s InsulSafe® SP, Optima®, TrueComfort™ TrueComfort ™ - Canada and UltraComfort ™ fiber glass insulation products meet GREENGUARD Emission Standards. CertainTeed’s certification confirms compliance with GREENGUARD Emission Standards, which are based on criteria used by the State of Washington, the U.S. Environmental Protection Agency (EPA), OSHA and the World Health Organization for total particulate and Volatile Organic Compounds (VOC) emissions, including formaldehyde. Additionally, CertainTeed’s residential fiber glass insulation products meet the following emission criteria: California Section CA1350 material specification for schools and offices; OSHA Purchase Specification; State of Washington; EPA; and Proposed State of California. CertainTeed’s residential fiber glass insulations also meet the EPA Recovered Material Guideline for recycled content.
13. WASTE DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions
A: General Product Information
   Wastes must be tested using methods described in 40 CFR Part 261 to determine if it
   meets applicable definitions of hazardous wastes.

B: Component Waste Numbers
   No EPA-listed Waste Numbers are being shown for this product’s components.

Disposal Instructions
   Dispose of waste material according to Federal, State, local and Provincial environmental
   regulations. See Section 7 for Handling Procedures; see Section 8 for Personal Protective
   Equipment recommendations.

14. TRANSPORTATION INFORMATION

US DOT Information
   This product is not regulated as a hazardous material by the United States (DOT) transportation
   regulations.

National Motor Freight Classification (NMFC)
   10330S3, Insulation Material – NOI (Not Otherwise Indexed)

International Transportation Regulations
   This product is not regulated as a hazardous material by Canadian (TDG) transportation
   regulations.

15. US FEDERAL REGULATIONS

A: 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.

B: CERCLA
   None of the components of this product are present at an amount reportable to the
   National Response Center under the Comprehensive Environmental Response,
   Compensation and Liability Act (CERCLA: 40 CFR 302.4) or to State and local
   emergency planning committees under the Superfund Amendments and Reauthorization
   Act (SARA), Title III, Section 304.

   Acute Health: Yes  Chronic Health: Yes  Fire: No  Pressure: No  Reactive: No
State Regulations

A: General Product Information
Other state regulations may apply. Check individual state requirements.

B: 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>
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</thead>
<tbody>
<tr>
<td>Fiber Glass</td>
<td>65997-17-3</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Distillates (petroleum), solvent dewaxed and/or hydrotreated heavy paraffinic</td>
<td>64742-65-0/ 64742-54-7</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

C: 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

A: General Product Information: WHMIS Class D2A – Very toxic material.

B: Component Analysis - WHMIS IDL
Fibrous glass and mineral oil are listed in the WHMIS IDL.

WHMIS Classification: WHMIS Class D2A – Very toxic material.

Additional Regulatory Information

A: General Product Information: No additional information available.

B: Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
</tr>
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<tbody>
<tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

16. ADDITIONAL COMMENTS

Other Information
Disclaimer: 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.
Acronyms/definitions used in this MSDS:

- **ACGIH**: American Conference of Governmental Industrial Hygienists
- **CAS #**: Chemical Abstracts Services Number
- **CERCLA**: Comprehensive Environmental Response, Compensation and Liability Act
- **CFR**: Code of Federal Regulations
- **EPA**: Environmental Protection Agency
- **HMIS**: Hazardous Material Identification System
- **HSPP**: Health and Safety Partnership Program
- **IARC**: International Agency for Research on Cancer
- **IDL**: Ingredient Disclosure List
- **LFL**: Lower Flammable Limit
- **mg/m^3**: Milligrams per cubic meter
- **NAIMA**: North American Insulation Manufacturers Association
- **NFPA**: National Fire Protection Association
- **NIOSH**: National Institute for Occupational Safety and Health
- **NTP**: National Toxicology Program
- **OSHA**: Occupational Safety and Health Administration
- **ppm**: Parts per million
- **PEL**: Permissible Exposure Limit
- **REL**: Recommended Exposure Limit
- **SARA**: Superfund Amendments and Reauthorization Act
- **RCRA**: Resource Conservation and Recovery Act
- **Title III**: Emergency Planning and Community Right to Know Act
- **Section 302**: Extremely Hazardous Substances
- **Section 313**: Toxic Chemicals
- **TLV**: Threshold Limit Value
- **TWA**: Time Weighted Average
- **UFL**: Upper Flammable Limit
- **µm**: Micron
- **WHMIS**: Workplace Hazardous Material Information System

**MSDS History**

<table>
<thead>
<tr>
<th>Date</th>
<th>MSDS No.</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>February 12, 2007</td>
<td>CT 10093-1</td>
<td>Replaces CT 2538-18 &amp; CT 10082-1. Reformatted; updated product information; updated MSDS for InsulSafe® SP.</td>
</tr>
<tr>
<td>April 21, 2010</td>
<td>CT 10093-3</td>
<td>Added Ultra Comfort to document. Updated CT Logo</td>
</tr>
<tr>
<td>December 17, 2010</td>
<td>CT 10093-4</td>
<td>Added TrueComfort – Canada</td>
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<tr>
<td>October 27, 2011</td>
<td>CT 10093-5</td>
<td>Added Product Literature Code</td>
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<tr>
<td>July 23, 2012</td>
<td>CT 10093-6</td>
<td>Added InsulSafe XC</td>
</tr>
<tr>
<td>January 8, 2013</td>
<td>CT 10093-7</td>
<td>Added Northern White</td>
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</table>

This is the end of MSDS CT 10093-7