Material Safety Data Sheet

CertainTeed

MECHANICAL/OEM (Category 2-Textile)

DATE PREPARED: JUNE 1, 2004 *MSDS Number: CT 3702-10*

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT IDENTIFICATION

CertaSound™Acoustical Blanket
Industrial Resilient Blanket
Muffler Pac
ToughGard® Duct Liner
ToughGard®2 Textile Duct Liner
ToughGard® Turning Vane
ULTRALITE® Duct Liner
ULTRALITE® Insulation
ULTRA*LINER®

Chemical Name:	Mixture
CAS No:	None Assigned
Common Name:	Fiber Glass Insulation
Product Use:	Acoustical and Thermal Insulation

MANUFACTURER INFORMATION

CertainTeed Corporation
P.O. Box 860
Valley Forge, PA USA
19482-0105

(610) 341-7000
9 am - 5 pm (Eastern Time - USA)

EMERGENCY TELEPHONE: CHEMTREC (800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Glass, oxide chemicals (textile)
CAS No:	65997-17-3
Common Name:	Fiber glass textile, continuous filament glass fibers
Percent in Product:	30 – 100% by weight
LD_{50}:	N/A
LC_{50}:	N/A

Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**NIOSH REL**
	Total Nuisance Dust: 15 mg/m³ Respirable Nuisance Dust: 5 mg/m³	SyntheticVitreous Fibers: 1f/cc (continuous filament glass fibers)	Total Glass Dust: 5 mg/m³ Respirable Fibers: 3 f/cc

Chemical Name:	**ToughGard®2 Textile Duct Liner Only** Glass, oxide, chemicals (wool)
CAS No:	65997-17-3
Common Name:	Fibrous glass wool
Percent in Product:	30% by weight-maximum
LD_{50}:	N/A
LC_{50}:	N/A

Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**NIOSH REL**
	Total Nuisance Dust: 15 mg/m³ Respirable Nuisance Dust: 5 mg/m³ HSPP Voluntary: 1 f/cc	Synthetic Vitreous Fibers - Glass Wool Fibers: 1 f/cc	Total Glass Dust: 5 mg/m³ Respirable Fibers: 3 f/cc

See Section 16 for definitions of respirable fibers.

2. COMPOSITION/INFORMATION ON INGREDIENTS (Continued)

Chemical Name:	Phenol, polymer with formaldehyde, reaction products with hexamethylenetetramine (cured)		
CAS No:	68585-23-9		
Common Name:	Phenol formaldehyde polymer hexamethylenetetramine cross-linked		
Percent in Product:	10 – 30% by weight		
LD_{50}:	N/A		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**OTHER**
	None	None	None

Chemical Name:	**ULTRALITE Only** Urea polymer of phenol and formaldehyde (cured)		
CAS No:	25104-55-6		
Common Name:	Cured Binder		
Percent in Product:	15 – 20% by weight		
LD_{50}:	N/A		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**OTHER**
	None	None	None

Chemical Name:	**Turning Vane Only** Nylon		
CAS No:	25038-54-4		
Common Name:	Nylon 6		
Percent in Product:	19.4%		
LD_{50}:	N/A		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**NIOSH REL**
	None	None	None

Chemical Name:	Hydrated Alumina		
CAS No:	1344-28-1		
Common Name:	Hydrated Alumina		
Percent in Product:	0.5 – 6% by weight		
LD_{50}:	N/A		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**OTHER**
	Total Nuisance Dust: 15 mg/m^3 Respirable Nuisance Dust: 5 mg/m^3	10 mg/m^3 (as Al)	None

Chemical Name:	**Coated Products Only** Kaolin		
CAS No:	1332-58-7		
Common Name:	Clay		
Percent in Product:	2.2% maximum by weight		
LD_{50}:	N/A		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**NIOSH REL**
	Total Dust: 15 mg/m^3 Respirable Dust: 5 mg/m^3	Respirable Dust: 2 mg/m^3	Total Dust: 10 mg/m^3 Respirable Dust: 5 mg/m^3

Chemical Name:	**Coated Products Only**		
	Antimony Oxide		
CAS No:	1309-64-4		
Common Name:	Antimony Trioxide		
Percent in Product:	0.9% maximum by weight		
LD_{50}:	3250 mg/kg (Intraperitoneal – Rat)		
LC_{50}:	N/A		
Exposure Limits:	**OSHA PEL TWA**	**ACGIH TLV TWA**	**OTHER**
	None	0.5 mg/m^3	None

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

	Health	Fire	Reactivity
NFPA Rating:	0	0	0
HMIS Rating:	1	0	0

(see section 16 for acronyms)

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

POTENTIAL HEALTH EFFECTS

Primary Routes of Entry: Inhalation, skin and eye contact.

Acute Inhalation: Temporary upper respiratory irritation.

Chronic Inhalation: None known.

Acute Skin Contact and Sensitization: Temporary skin irritation seen in certain individuals.

Chronic Skin Contact: None known.

Skin Absorption: None.

Acute Eye Contact: Temporary eye irritation.

Chronic Eye Contact: None known.

Acute Ingestion: Unlikely. Contact physician if unusual reaction is noted.

Chronic Ingestion: None known.

Medical Conditions Which May Be Aggravated: Pre-existing conditions which may be aggravated by mechanical irritants upon inhalation or skin contact.

Carcinogenicity:

Ingredient: Fiber glass wool, Glasswool (respirable size)
NTP: Listed as 2, reasonably anticipated to be a carcinogen, sufficient evidence from studies in experimental animals
IARC: Group 3, not classifiable as to carcinogenicity to humans.
OSHA: Not Listed

Ingredient: Fiber glass textile.
NTP: Not Listed.
IARC: Not Classifiable – Group 3.
OSHA: Not Listed.

Ingredient: Antimony Oxide.
NTP: Not Listed.
IARC: Possibly Carcinogenic to Humans – 2B.
OSHA: Not Listed.

Mutagenicity: None.

Teratogenicity: None.

Reproductive Toxicity: None.

Toxicological Synergistic Products: None.

4. FIRST AID MEASURES

Inhalation: Remove from exposure. Get medical help if irritation persists.

Eye Contact: Flush well with running water for at least 15 minutes. Get medical help if irritation persists.

Skin Contact: Cleanse with soap and water. Get medical help if irritation persists.

Ingestion: Unlikely. Consult physician if unusual reaction is noted.

Fires: Remove to fresh air. Administer oxygen and get medical help.

Information for Medical Practitioners: Skin irritation responds well to mild hydrocortisone cream.

5. FIRE FIGHTING MEASURES

Flash Point (˚F) and Method: Does not support combustion.

Flammable Limits: **LEL:** N/A **UEL:** N/A

Autoignition Temperature: N/A

Extinguishing Media: Use that which is applicable to surrounding fire.

Special Fire Fighting Procedures: Treat as residential building materials.

Conditions of Flammability: Facings on these products may burn. Care should be taken not to leave facing exposed when working close to an open flame.

Unusual Fire and Explosion Hazard, Decomposition Products: These products contain a cured phenolic based binder. The binder in a fire situation may emit toxic fumes and smoke containing carbon dioxide, carbon monoxide and molecular fragments of hydrocarbon particulates, carbon-hydrogen-nitrogen and nitrogen-oxygen compounds and ammonia. Coated products may also emit hydrogen chloride.

6. ACCIDENTAL RELEASE MEASURES

Spills/Leaks: Vacuum dust deposits.

Accidental or Unplanned Releases: Clean area with vacuum or wet methods.

7. HANDLING AND STORAGE

Handling: When handling and/or applying this insulation:

- Wear long sleeves, gloves and cap.
- Wear eye protection (goggles, safety glasses or face mask).
- Use a NIOSH-certified disposable or reusable particulate respirator with an efficiency of N95 or higher, such as a 3M #8210, #8511, #8233 or equivalent.

After handling and/or applying this insulation:

- Bathe with soap and warm water.
- Wash work clothes separately and rinse washer after use.

Storage: Store under cover to protect product.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Personal Protective Equipment:

Respirators: Wear NIOSH-certified respirators when handling and applying fiber glass insulation products in accordance with the following NIOSH based exposure guidelines:

Exposure	Respirator (or equivalent)
Less than 10 times exposure guideline	1/2 mask N95 or higher, such as 3M #8210, #8511 or #8233
Less than 50 times exposure guideline	Full face N100 or higher, such as 3M 6000 or 7000 series

Product Package Label:

CAUTION: This processed continuous filament fiber glass insulation product may cause skin, eye and respiratory irritation.

When handling and/or applying this insulation:

- Wear long sleeves, gloves and cap.
- Wear eye protection (goggles, safety glasses or face mask).
- Use a NIOSH-certified disposable or reusable particulate respirator with an efficiency of N95 or higher, such as a 3M #8210, #8511, #8233 or equivalent.

After handling and/or applying this insulation:

- Bathe with soap and warm water.
- Wash work clothes separately and rinse washer after use.

For additional product safety information, including dust respirator data and Material Safety Data Sheets (MSDS), call (610) 341-7000.

Work Practices and Engineering Controls: Avoid spread of fiber glass dust. Provide general and/or local exhaust ventilation to control airborne dust levels below exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Boiling Point (˚F): >2550˚ (glass)
Melting Point (˚F): 2250˚ (glass)
Softening Point (˚F): Approx. 1550˚
Odor: Faint resin odor
Odor Threshold: None
Color: Yellow, Brown, or Amber
pH: N/A
Vapor Density (Air=1): N/A
Specific Gravity (H_2O=1): Glass=2.6
% Volatile by Volume: Not volatile
Vapor Pressure: N/A
Evaporative Rate (ethyl ether=1): N/A
% Solubility (H_2O): Small
Freezing Point: None
Coefficient of Water to Oil Distribution: N/A
Appearance: Fibers assembled into blankets or boards. The products may be plain, coated, composite-faced or foil skrim kraft (FSK) faced.

10. REACTIVITY

Stability: Chemically stable

Corrosivity: Not corrosive

Incompatibility: Hydrofluoric Acid

Reactivity: Not reactive

Reactivity with water: Not reactive

Explosion: Product is not sensitive to mechanical impact or static discharge.

11. TOXICOLOGICAL INFORMATION

Following a thorough review of all of 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 the manufacture of these materials, and inadequate evidence overall of any cancer risk."

IARC also determined that the data from both human and animal studies was inadequate to classify continuous filament glass fibers (Not Classifiable – Group 3), such as used in these products and other textile fiber glass products, as carcinogenic to humans.

12. ECOLOGICAL INFORMATION

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.

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. No harm to fish or wildlife would be caused by this product.

13. WASTE DISPOSAL CONSIDERATIONS

Scrap material should be disposed of in a sanitary landfill in accordance with federal, state and local regulations. Waste material is not considered hazardous as defined by RCRA (40 CFR Part 261).

14. TRANSPORTATION INFORMATION

National Motor Freight Classification (NMFC): 103300S3, Insulation Material – NOI (Not Otherwise Indexed).

15. REGULATORY INFORMATION

As this product is considered a mixture, each component is listed below identifying its status on specific regulatory lists.

CHEMICAL NAME	SARA Title III Section 313	SARA Title III Section 302	California Proposition 65	Canada DSL	Canada NDSL	Korea KECI	Europe EINECS	Japan MITI	Philippines PICCS	Australia AICS	USA TSCA
Fiber glass textile and wool 65997-17-3	—	—	✓†	✓	—	✓	✓	✓	✓	✓	✓
Phenol formaldehyde reaction products with hexamethylenetetramine 68585-23-9	—	—	—	—	✓	—	—	✓	—	✓	✓
Kaolin 1332-58-7	—	—	—	—	✓	✓	—	—	✓	✓	✓
Antimony Oxide 1309-64-4	—	—	✓	✓	—	✓	✓	✓	✓	✓	✓
Nylon 25038-54-4	—	—	—	✓	—	—	—	✓	—	—	✓

† listed as glass wool fibers (airborne particulates of respirable size)

16. ADDITIONAL COMMENTS

Acronyms/definitions used in this MSDS:

ACGIH: American Conference of Governmental Industrial Hygienists
CAS No: Chemical Abstracts Service Number
EPA: Environmental Protection Agency
f/cc: Fibers per cubic centimeter
HMIS: Hazardous Material Identification System
HSPP: Health & Safety Partnership Program between OSHA and the North American Insulation Manufacturer's Association (NAIMA)
IARC: International Agency for Research on Cancer
LC_{50}: The air concentration of a substance, when administered over a specified time period in an animal assay, is expected to cause the death of 50% of a defined animal population.
LD_{50}: The single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50% of a defined animal population.
LEL: Lower Explosive Limit
mg/m^3: Milligrams per cubic meter
N/A: Not Applicable
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NMFC: National Motor Freight Classification
NOI: Not otherwise indexed
NTP: National Toxicology Program
N95: A particulate filter respirator certified for at least 95% filter efficiency. For use in atmospheres containing solid or particulate hazards that do not contain oil.
N100: A particulate filter respirator certified for 99.97% filter efficiency. For use in atmospheres containing solid or particulate hazards that do not contain oil.

16. ADDITIONAL COMMENTS (Continued)

OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit
RCRA:	Resource Conservation and Recovery Act
REL:	Recommended Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act
Title III:	Emergency Planning and Community Right to Know Act Section 302 - Extremely Hazardous Substances Section 313 - Toxic Chemicals
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (USA)
TWA:	Time Weighted Average
UEL:	Upper Explosive Limit

Australia AICS:	Australian Inventory of Chemical Substances
California Proposition 65:	California Title 22, Division 2, Chapter 3 Safe Drinking Water and Toxic Enforcement Act of 1986
Canada DSL:	Canadian Domestic Substance List
Canada NDSL:	Canadian Non-Domestic Substance List
Europe EINECS:	European Inventory of Existing Commercial Chemical Substances
Japan MITI:	Ministry of International Trade and Industry
Korea KECI:	Korean Existing Chemicals Inventory
Philippines PICCS:	Philippine Inventory of Chemicals and Chemical Substances
Respirable Nuisance Dust:	The respirable fraction of suspended airborne particulates
Respirable Fibers (ACGIH):	Suspended airborne particulates with lengths greater than 5 microns and a 3:1 length-to-width aspect ratio. Results given as f/cc.
Respirable Fibers (HSPP):	Suspended airborne particulates with diameters of 3 micrometers or less, lengths of 5 micrometers or more and 5:1 length-to-width aspect ratio (NIOSH 7400 method, B rules). Results given as f/cc.
Respirable Fibers (NIOSH):	Suspended airborne particulates with diameters of 3.5 microns or less and lengths of 10 microns or more. Results given as f/cc.
Total Nuisance Dust:	Suspended airborne particles of “nuisance” dusts including those of non-respirable size
Total Glass Dust:	Suspended airborne particles of dust composed of glass only, including those of non-respirable size