

Section 1 - Product and Company Identification

- Material Name** ▪ **CertainTeed FlintBoard™ ISO**
- Product Description** ▪ White or cream colored foam solid with a dark gray glass fiber reinforced felt facing on both sides.
- Product Use** ▪ Polyisocyanurate roofing insulation.
- Manufacturer** ▪ CertainTeed Corporation
750 E. Swedesford Road
P.O. Box 860 Valley Forge, PA 19482-0105
United States
www.certainteed.com
CertainTeed - EHS@saint-gobain.com
- Telephone**
 - Technical** ▪ (610) 341-7000 - 9 AM – 5 PM (Eastern Time – USA)
 - Emergency** ▪ (800) 424-9300 - Chemtrec
 - Emergency** ▪ (703) 527-3887 - Outside of the U.S. Chemtrec
- Preparation Date** ▪ 10/07/2011
- Last Revision Date** ▪ 10/07/2011

Key to abbreviations
‡ = HMIS is a registered trademark of the American Coatings Association

Section 2 - Hazards Identification

Emergency Overview

Storage/Disposal Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Product is a solid formed article. With exception of the blowing agent, this product does not present an inhalation, ingestion or contact health hazard unless subjected to operations such as sawing, sanding or machining that result in the generation of airborne particulates (dusts). Exposure to high dust levels may irritate skin, eyes, nose, throat or upper respiratory tract. Inhalation of large amounts of dust over long periods may overload lung clearance mechanisms and make lungs more vulnerable to respiratory disease.

- Physical Form** ▪ Solid
- Color** ▪ White or cream/Dark gray.
- Odor** ▪ Negligible
- OSHA** ▪ None
- WHMIS** ▪ None
- GHS** ▪ None

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation. Overexposure to high concentrations of pentane can cause narcotic effects. Signs and symptoms of overexposure to pentane include headache, nausea, dizziness, difficulty walking or sleepiness.

Chronic (Delayed)

- There is no evidence that dusts generated from these product cause disease in humans. Facer dusts containing carbon black pigment are not analogous to the raw carbon black powder for which human carcinogenicity is suspected. No chronic effects are known for exposure to pentane vapors. No chronic health effects are known to be associated with exposure to glass fibers. Results from epidemiological studies have not shown any increase in respiratory disease or cancer.

Skin

Acute (Immediate)

- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation.

Chronic (Delayed)

- None known.

Eye

Acute (Immediate)

- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation.

Chronic (Delayed)

- None known.

Ingestion

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- No data available.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
Isocyanurate homopolymer	NDA	78%	NDA	NDA	NDA	Polyiso foam
Felt facer	NDA	22%	NDA	NDA	NDA	NDA
Glass, oxide, chemicals	65997-17-3	5%	266-046-0	NDA	NDA	Felt facer
Pentane	109-66-0	< 4.7%	UN1265, 203-692-4	Inhalation-Rat LC50 · 364 g/m ³ 4 Hour(s)	F+; R12 N; R51 R53 Xn; R65 R66 R67	Polyiso foam (Residual blowing agent)
Carbon Black	1333-86-4	1%	215-609-9	Ingestion/Oral-Rat LD50 · >15400 mg/kg	NDA	Felt facer (Pigment)

Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use. Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use. This product as an article is outside the scope of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

Inhalation

- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Drink water to clear throat and blow nose to remove

Pictograms



Respiratory

- Respiratory protection may be needed if exposure limit for dust is exceeded or if the material is used in poorly ventilated area. Follow the OSHA respirator regulations found in 29 CFR 1910.134.

Eye/Face

- Wear safety glasses or goggles.

Hands

- Wear appropriate gloves.

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (carbon black in presence of polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
Formaldehyde (50-00-0)	STELs	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	Not established	0.016 ppm TWA	0.75 ppm TWA
	Ceilings	0.3 ppm Ceiling	0.1 ppm Ceiling (15 min)	Not established
Pentane (109-66-0)	TWAs	600 ppm TWA	120 ppm TWA; 350 mg/m3 TWA	1000 ppm TWA; 2950 mg/m3 TWA
	Ceilings	Not established	610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)	Not established
Glass, oxide, chemicals	TWAs	1 fiber/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) <i>as Glass wool fiber</i>	3 fibers/cm3 TWA (fibers <= 3.5 µm in diameter and >= 10 µm in length); 5 mg/m3 TWA (total) <i>as Glass wool fiber</i>	Not established

Key to abbreviations

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties			
Physical Form:	Solid	Appearance/Description:	White or cream colored foam solid with a dark gray glass fiber reinforced felt facing on both sides.
Color:	White or cream/Dark gray.	Odor:	Negligible
Taste:	No data available	Particulate Type:	No data available
Particulate Size:	No data available	Aerosol Type:	No data available
Odor Threshold:	No data available	Boiling Point:	No data available
Melting Point:	> 250 F(> 121.1111 C)	Decomposition Temperature:	No data available
Heat of Decomposition:	No data available	pH:	No data available
Specific Gravity/Relative Density:	< 1 Water=1	Density:	No data available
Bulk Density:	No data available	Water Solubility:	Insoluble
Solvent Solubility:	Insoluble	Viscosity:	No data available
Vapor Pressure:	No data available	Vapor Density:	No data available

Evaporation Rate:	No data available	VOC (Wt.):	No data available
VOC (Vol.):	No data available	Volatiles (Wt.):	No data available
Volatiles (Vol.):	< 1	Flash Point:	No data available
Flash Point Test Type:	No data available	UEL:	No data available
LEL:	No data available	Heat of Combustion (ΔH_c):	No data available
Autoignition:	No data available	Self-Accelerating Decomposition Temperature (SADT):	No data available
Burning Time:	No data available	Flame Duration:	No data available
Flame Height:	No data available	Flame Extension:	No data available
Ignition Distance:	No data available	Half-Life:	No data available
Octanol/Water Partition coefficient:	No data available	Coefficient of water/oil distribution:	No data available
Bioaccumulation Factor:	No data available	Bioconcentration Factor:	No data available
Biochemical Oxygen Demand BOD/BOD5:	No data available	Chemical Oxygen Demand:	No data available
Persistence:	No data available	Degradation:	No data available

Section 10 - Stability and Reactivity

Stability	<ul style="list-style-type: none"> Stable under normal temperatures and pressures.
Hazardous Polymerization	<ul style="list-style-type: none"> Hazardous polymerization will not occur.
Conditions to Avoid	<ul style="list-style-type: none"> No data available.
Incompatible Materials	<ul style="list-style-type: none"> To prevent deterioration avoid contact with acetone, methyl ethyl ketone, tetrahydrofuran, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide and dimethyl formamide.
Hazardous Decomposition Products	<ul style="list-style-type: none"> None identified.

Section 11 - Toxicological Information

Component Name	Concentration	CAS	Data
Glass, oxide, chemicals	5%	65997-17-3	Acute Toxicity: ihl-rat TCLo:16 mg/m3/6H/13W-I
Pentane	< 4.7%	109-66-0	Acute Toxicity: ihl-rat LC50:364 gm/m3/4H; ihl-rat TCLo:116 mg/m3/117D-C
Carbon Black	1%	1333-86-4	Acute Toxicity: orl-rat LD50:>15400 mg/kg; ihl-mus TCLo:7 mg/m3/6H/13W-I; ihl-rat TCLo:229 mg/m3/6H; Mutagen: dnd-rat-ihl 50 ug/L/13W-I; Tumorigen/Carcinogen: ihl-rat TCLo:11600 ug/m3/18H/2Y-I

Key to abbreviations

TC = Toxic Concentration

LC = Lethal Concentration

Section 12 - Ecological Information

Ecological Fate	<ul style="list-style-type: none"> No data available
Persistence/Degradability	<ul style="list-style-type: none"> No data available
Bioaccumulation Potential	<ul style="list-style-type: none"> No data available
Mobility in Soil	<ul style="list-style-type: none"> No data available

Chemicals in this material are not expected to cause harm to aquatic or terrestrial plants or animals; however, fish or other animals may eat the product, which could obstruct their digestive tracts.

Section 13 - Disposal Considerations

- Product**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transportation Information

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

Section 15 - Regulatory Information

SARA Hazard Classifications ▪ None

State Right To Know				
Component	CAS	MA	NJ	PA
Isocyanurate homopolymer	NDA	No	No	No
Felt facer	NDA	No	No	No
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Pentane	109-66-0	Yes	Yes	Yes
Carbon Black	1333-86-4	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Isocyanurate homopolymer	NDA	No	No	No
Felt facer	NDA	No	No	No
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Pentane	109-66-0	Yes	No	Yes
Carbon Black	1333-86-4	Yes	No	Yes
Formaldehyde	50-00-0	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Ingredient Disclosure List

● Pentane	109-66-0	< 4.7%	1 %
● Carbon Black	1333-86-4	1%	1 %
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	0.1 %

Environment

Canada - CEPA - Priority Substances List

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	Priority Substance List 2 (substance considered toxic)

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	1000 lb TQ

U.S. - OSHA - Specifically Regulated Chemicals

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level; 0.75 ppm TWA

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	(includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers [or other mineral derived fibers] of average diameter 1 µm or less)
● Formaldehyde	50-00-0	< 1%	

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	100 lb final RQ; 45.4 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

● Pentane	109-66-0	< 4.7%	Not Listed
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● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	100 lb EPCRA RQ

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	500 lb TPQ

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	0.1 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	Included in waste streams: K009, K010, K038, K040, K156, K157

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	waste number U122

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	waste number U122

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- | | | | |
|---|------------|--------|---|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size) |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | carcinogen, initial date 7/1/90 (airborne particles of respirable size) |
| ● Formaldehyde | 50-00-0 | < 1% | carcinogen, initial date 1/1/88 (gas) |

U.S. - California - Proposition 65 - Developmental Toxicity

- | | | | |
|---|------------|--------|------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | Not Listed |

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- | | | | |
|---|------------|--------|------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- | | | | |
|---|------------|--------|----------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | 40 µg/day NSRL |

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

- | | | | |
|---|------------|--------|------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- | | | | |
|---|------------|--------|------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | Not Listed |

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

- | | | | |
|---|------------|--------|------------|
| ● Pentane | 109-66-0 | < 4.7% | Not Listed |
| ● Carbon Black | 1333-86-4 | 1% | Not Listed |
| ● Glass, oxide, chemicals | 65997-17-3 | 5% | Not Listed |
| ● Glass, oxide, chemicals as Glass wool fiber | | 5% | Not Listed |
| ● Formaldehyde | 50-00-0 | < 1% | |

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

● Pentane	109-66-0	< 4.7%	Not Listed
● Carbon Black	1333-86-4	1%	Not Listed
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Not Listed
● Formaldehyde	50-00-0	< 1%	

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

● Pentane	109-66-0	< 4.7%	Toxic; Flammable
● Carbon Black	1333-86-4	1%	Toxic
● Glass, oxide, chemicals	65997-17-3	5%	Not Listed
● Glass, oxide, chemicals as Glass wool fiber		5%	Toxic
● Formaldehyde	50-00-0	< 1%	Toxic; Flammable; Carcinogen

Additional Regulatory Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Preparation Date

- 10/07/2011

Last Revision Date

- 10/07/2011

Disclaimer/Statement of Liability

- 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.

Key to abbreviations

NDA = No Data Available