

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RESISTA™ Insulation (Flat and Tapered)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD • According to European Directive 1999/45/EC this preparation is not considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012 • This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Glass, oxide, chemicals	CAS:65997-17-3 EC Number:266-046-0	< 25%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
2-Methylbutane	CAS:78-78-4 EC Number:201-142-8	4.5% TO 9.9%	Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour (s)	EU DSD/DPD: EU CLP: Annex VI: Flam. Liq. 1, H224; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam. Liq. 1; Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3: Resp. Irrit. & Narc.; Asp. Tox. 1	NDA
Pentane	CAS:109-66-0 EC Number:203-692-4	0.05% TO 5.5%	Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s) Ingestion/Oral-Rat LD50 • >2000 mg/kg	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F+, R12; Xn, R65; R66; R67; N, R51, R53 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam. Liq. 1; Asp. Tox. 1;	NDA

				Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Narc.	
2-Propanol, 1-chloro-, 2,2',2"-phosphate	CAS:13674-84-5 EC Number:237-158-7	< 5%	Ingestion/Oral-Rat LD50 • 1500 mg/kg	EU DSD/DPD: Self Classified: Xn, R22 EU CLP: Self Classified: Acute Tox. 4, H302 OSHA HCS 2012: Acute Tox. 4 (Oral)	NDA

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion**
- Rinse mouth. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- No specific actions or treatments recommended related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO2, water spray or regular foam.
- Unsuitable Extinguishing Media**
- No data available.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Burning of this product will produce thick black smoke. Toxic fumes and vapors may be produced. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Isopentane and n-pentane, highly flammable materials, may be present within this product.
- Hazardous Combustion Products**
- Carbon dioxide and carbon monoxide, phosphorus oxides, and phosphoric acid.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Not applicable.

Emergency Procedures • Not applicable.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust.
Pick up large pieces. Sweep and scoop up material and put into a suitable container for disposal as a non-hazardous waste.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use only in well ventilated areas. Wear appropriate personal protective equipment. Protect against dust that may be generated by reprocessing, altering or applying this product. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Keep away from heat, sparks and flame. Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Pentane (109-66-0)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA
	STELs	Not established	Not established	Not established	Not established	750 ppm STEL; 2210 mg/m ³ STEL
2-Methylbutane (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	Not established
Glass, oxide, chemicals	TWAs	1 fiber/cm ³ 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, listed under Synthetic	1 fibre/cm ³ TWA <i>as Glass wool fiber</i>	1 fibre/cm ³ TWA (fibres >5 µm, with an aspect ratio of ≥3:1, as determined by the membrane filter method at 400-450 times magnification (4 mm objective), using phase-contrast illumination, listed under Synthetic	1 fiber/cm ³ 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, listed under Synthetic	1 fibre/cm ³ TWA (fibres >5 µm with a diameter <3 µm, aspect ratio >5:1) <i>as Glass wool fiber</i>

		vitreous fibers) as Glass wool fiber		vitreous fibres) as Glass wool fiber	vitreous fibers) as Glass wool fiber	
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Pentane (109-66-0)	STELs	750 ppm STEL; 2213 mg/m3 STEL	Not established	750 ppm STEL; 2213 mg/m3 STEL	Not established	Not established
	TWAs	600 ppm TWA; 1771 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1771 mg/m3 TWA	600 ppm TWA	120 ppm TWAEV; 350 mg/m3 TWAEV
2-Methylbutane (78-78-4)	TWAs	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established
Glass, oxide, chemicals	TWAs	3 fibre/cm3 TWA (with a diameter <=3.5 µm and a length >=10 µm); 5 mg/m3 TWA (total mass) as Glass wool fiber	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, listed under Synthetic vitreous fibers) as Glass wool fiber	3 fibre/cm3 TWA (with a diameter <=3.5 µm and a length >=10 µm); 5 mg/m3 TWA (total mass) as Glass wool fiber	1 fibre/cm3 TWA (fibres >5 µm in length and an aspect ratio >=3:1 as determined by the membrane filter method at 400-450 times magnification (4 -mm objective), using phase-contrast illumination, respirable, listed under Synthetic Vitreous Fibres (Man Made Mineral Fibres)) as Glass wool fiber	2 fibre/cm3 TWAEV (respirable, listed under Fibres - Artificial Vitreous Mineral Fibres) as Glass wool fiber
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	Europe	NIOSH	OSHA
Pentane (109-66-0)	TWAs	600 ppm TWA	600 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 3000 mg/m3 TWA	120 ppm TWA; 350 mg/m3 TWA	1000 ppm TWA; 2950 mg/m3 TWA
	STELs	Not established	750 ppm STEL; 2250 mg/m3 STEL	Not established	Not established	Not established
	Ceilings	Not established	Not established	Not established	610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)	Not established
2-Methylbutane (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	1000 ppm TWA; 3000 mg/m3 TWA	Not established	Not established
Glass, oxide, chemicals	TWAs	1 fibre/cm3 TWA (respirable fibres, listed under Synthetic vitreous fibres) as Glass wool fiber	30 mppcf TWA; 10 mg/m3 TWA (respirable mass) as Glass wool fiber	Not established	3 fiber/cm3 TWA (fibres <= 3.5 µm in diameter and >= 10 µm in length); 5 mg/m3 TWA (total) as Glass wool fiber	Not established

8.2 Exposure controls

Engineering Measures/Controls

- No special controls are expected to be needed.

Personal Protective Equipment**Respiratory**

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Hands

- Wear appropriate gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls if determined to be needed by the end-user.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

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

TWA EV = Time-Weighted Average Exposure Value

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

Section 9 - Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	White rigid cellular sheets with a dark gray mat and no odor.
Color	White	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- No data available.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Pentane (0.05% TO 5.5%)	109-66-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s)
2-Methylbutane (4.5% TO 9.9%)	78-78-4	Acute Toxicity: Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour(s)

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion

Medical Conditions Aggravated by Exposure • Disorders of the lungs.

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic (Delayed)**
 - No data available

Skin

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation.
- Chronic (Delayed)**
 - No data available.

Eye

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)**
 - No data available.

Ingestion

- Acute (Immediate)**
 - Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)**
 - No data available.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

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

Packaging waste

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

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
ADN	NDA	Not regulated	NDA	NDA	NDA
ADR/RID	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

State Right To Know				
Component	CAS	MA	NJ	PA
2-Methylbutane	78-78-4	Yes	Yes	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	No	No	No
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Pentane	109-66-0	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
2-Methylbutane	78-78-4	Yes	No	Yes	No	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	No	Yes	No	Yes
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes	No	Yes
Pentane	109-66-0	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	B2
• 2-Methylbutane	78-78-4	B2
• Glass, oxide, chemicals	65997-17-3	Not Listed

<ul style="list-style-type: none"> • Glass, oxide, chemicals as Glass wool fiber 		Uncontrolled product according to WHMIS classification criteria (listed under Glass wool); D2A (listed under Mineral wool fiber)
Canada - WHMIS - Ingredient Disclosure List		
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	1 %
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Environment**Canada - 2004 NPRI (National Pollutant Release Inventory)**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - 2005 NPRI (National Pollutant Release Inventory)

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - CEPA - Priority Substances List

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

• Glass, oxide, chemicals as Glass wool fiber	Not Listed
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Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+; R12 N; R51-53 Xn; R65 R66 R67
• 2-Methylbutane	78-78-4	F+; R12 N; R51-53 Xn; R65 R66 R67
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• 2-Methylbutane	78-78-4	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	C
• 2-Methylbutane	78-78-4	C
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	S:(2)-9-16-29-33-61-62

• 2-Methylbutane	78-78-4	S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States

Labor

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Environment

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		(including 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)

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		carcinogen, initial date 7/1/90 (inhalable and biopersistent)

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed

• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

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

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H224 - Extremely flammable liquid and vapour
- H225 - Highly flammable liquid and vapour
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways
- H336 - May cause drowsiness or dizziness
- H411 - Toxic to aquatic life with long lasting effects
- EUH066 - Repeated exposure may cause skin dryness or cracking.
- R12 - Extremely flammable.
- R22 - Harmful if swallowed.
- R51 - Toxic to aquatic organisms.
- R53 - May cause long-term adverse effects in the aquatic environment.
- R65 - Harmful: may cause lung damage if swallowed.
- R66 - Repeated exposure may cause skin dryness or cracking.
- R67 - Vapours may cause drowsiness and dizziness.

Revision Date

- 18/January/2018

Preparation Date

- 06/November/2009

Other Information

- Changes to this revision: Updated mailing address.

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Key to abbreviations

NDA = No data available