

HEATLOK® ECO SAFETY DATA SHEET - B-SIDE

SECTION 1: PRODUCT & COMPANY INFORMATION

Supplier / Manufacturer: **Huntsman Building Solutions**

3315 E. Division Street, Arlington, TX 76011 Phone: 817-640-4900 / Fax: 817-633-2000

E-mail: info@huntsmanbuilds.com

Website: www.huntsmanbildingsolutions.com

GHS Product Identifier: Heatlok® Eco B-side Chemical Name: Polyurethane Resin / B-side

Product Type: Liquid

Identified Use: Component B of a Spray-Applied Polyurethane System

Emergency Telephone in USA: CHEMTREC 800-424-9300. In Canada: CANUTEC 613-996-6666 or *666 (cellular).

SECTION 2: HAZARDS IDENTIFICA	TION
OSHA / HCS Status	This material is classified hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the Substance or Mixture	Serious eye damage / eye irritation - Category 2A
GHS LABEL ELEMENTS INCLUD	ING PRECAUTIONARY STATEMENTS
Hazard Pictograms	
Signal Word	Warning
Hazard Statements	H319 - Causes serious eye irritation.
PRECAUTIONARY STATEMENT	S
Prevention	P280 - Wear eye or face protection P264 - Wash hands thoroughly after handling.
Response	P350 + P351 + P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + 313 - If eye irritation persists: Get medical attention.
Storage	Store locked up.
Disposal	Not applicable.
HAZARDS NOT OTHERWISE CL	ASSIFIED (HNOC)
Physical Hazards Not Otherwise Classified (PHNOC)	None known.
Health Hazards Not Otherwise Classified (HHNOC)	None known.

Substance / Mixture	Mixture								
Chemical Name	Polyurethane Resin B-side								
CAS NUMBER / OTHER IDENTIFIE	ERS								
CAS Number	Not applicable.	ot applicable.							
Product Code	Not available.								
INGREDIENTS		CAS#	%						
1,1,1,3,3-Pentafluoropropane		460-73-1	5 - 10						
Tris (2-chloro-1-methylethyl) Phos	phate	13674-84-5	5 - 10						
Triethyl Phosphate		78-40-0	1 - 5						
Trans-dichloroethylene		156-60-5	1 - 5						
Ethanediol		107-21-1	1 - 5						
2,2-Oxibisethanol		111-46-6	1 - 5						
N,N,N',N',N",N"-Hexamethyl-1,3,5-t	riazine-1,3,5(2H,4H,6H)-tripropanamine	15875-13-5	1 - 5						
Any concentration shown as a ran	age is to protect confidentiality or is due to bat	ch variation.	<u>.</u>						

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are

classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

SECTION 4: FIRST AID MEASUR	ES CONTRACTOR OF THE PROPERTY
DESCRIPTION OF NECESSAF	RY FIRST AID MEASURES
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Get medical attention if symptoms occur.
Skin Contact	Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
MOST IMPORTANT SYMPTOI	MS / EFFECTS, ACUTE AND DELAYED
POTENTIAL ACUTE HEALTH	EFFECTS
Eye Contact	Causes serious eye irritation.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin Contact	No known significant effects or critical hazards.
Ingestion	Irritating to mouth, throat and stomach.
OVER-EXPOSURE SIGNS / S	YMPTOMS
Eye Contact	Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation	No known significant effects or critical hazards.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
INDICATION OF IMMEDIATE	MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY
Notes to Physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific Treatments	No specific treatment.
Protection of First-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
See toxicological information	(Section 11)

SECTION 5: FIRE FIGHTING MEASURES									
Suitable Extinguishing Media	Use dry chemical, CO2, water spray (fog) or foam.								
Unsuitable Extinguishing Media	None known.								
Specific Hazards Arising from the Chemical	No specific fire or explosion hazard.								
Hazardous Thermal Decomposition Products	Combustion products may include carbon monoxide, carbon dioxide, nitrogen oxides, halogenated compounds, traces of ammonia vapors, phosphoric oxides, aldehydes and ketones, low molecular weight organic products, noxious and toxic fumes.								
Special Protective Actions for Fire Fighters	No special measures are required.								
Special Protective Equipment for Fire Fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.								

SECTION 6: ACCIDENTAL RELEASE MEASURES								
PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES								
For Non-emergency Personnel	Non-emergency Personnel Put on appropriate personal protective equipment.							
For Emergency Responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-emergency Personnel".							

METHODS AND MATERIALS TO	P CONTAINMENT AND CI FANING UP
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 15 for waste disposal.
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SECTION 7: HANDLING & STORAGE								
PRECAUTIONS FOR SAFE HANDLING								
Storage Temperature 50 - 80°F (10 - 27°C)								
Storage Life	6 months							
Protective Measures	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.							
Advice on General Occupational Hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.							
Conditions for Safe Storage Including any Incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.							

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION							
CONTROL PARAMETERS - UNITED STATES							
OCCUPATIONAL EXPOSURE L	OCCUPATIONAL EXPOSURE LIMITS						
Ingredient Name	Occupational Exposure Limit Values						
1,1,1,3,3-Pentafluoropropane	AIHA WEEL (United States, 10/2011) TWA: 300 ppm 8 hours						
Triethyl Phosphate	AIHA WEEL (United States, 10/2011) TWA: 7.45 mg/m³ 8 hours						
Trans-dichloroethylene	ACGIH TLV (United States, 4/2014) TWA: 200 ppm 8 hours TWA: 793 mg/m³ 8 hours						
Ethanediol ACGIH TLV (United States, 4/2014)	C: 100 mg/m³ Form: Aerosol OSHA PEL 1989 (United States, 3/1989) CEIL: 125 mg/m³ CEIL: 50 ppm						
2,2-Oxibisethanol	AIHA WEEL (United States, 5/2010) TWA: 10 mg/m³ 8 hours						

CONTROL PARAMETERS - CANADA

OCCUPATIONAL EXPOSURE LIMITS		TWA (8 HOURS)			STEL (15 MINS)			CEILING			
Ingredient Name	List Name	ppm	mg/m³	other	ppm	mg/m³	other	ppm	mg/m³	other	notes
	US ACGIH 4/2014	200	793	-	-	-	-	-	-	-	
	AB 4/2009	200	793	-	-	-	-	-	-	-	
Trans-dichloroethylene	BC 7/2013	200	-	-	-	-	-	-	-	-	
	ON 1/2013	200	793	-	-	-	-	-	-	-	
	QC 1/2014	200	793	-	-	-	-	-	-	-	
1,1,1,3,3- Pentafluoropropane	US AIHA 10/2011	300	_	-	-	-	-	-	_	-	

Ethanediol	US ACGIH 4/2014	-	-	_	-	-	-	-	100	-	(a)

	AB 4/2009	-	-	-	-	-	-	-	100	-	(3) (a)
		-	-	ı	-	-	-	-	100	ı	(a)
	BC 7/2013	-	10	ı	-	20	-	-	-	ı	(b)
		-	-	ı	-	-	-	50	-	ı	(c)
	ON 1/2013	-	-	1	-	-	-	-	100	1	(a)
	QC 1/2014	-	-	1	50	127	-	-	-	1	(d)
2,2-Oxibisethanol	US AIHA 5/2010	-	10	-	-	-	-	-	-	ı	
Triethyl Phosphate	US AIHA 10/2011	-	7.45	1	-	-	-	-	-	1	
	AB 4/2009	-	10	I	-	-	-	-	-	ı	(3) (e)
	BC 7/2013	-	10	-	-	-	-	-	-	-	(e)
Glycerol	BC 7/2013	-	3	-	-	-	-	-	-	-	(f)
	ON 1/2013	-	10	-	-	-	-	-	-	-	(g)
	QC 1/2014	-	10	-	-	-	-	-	-	-	(e)
(3) Skin sensitization. Form	: (a) Aerosol. (b) Part	iculate. ((c) Vapor.	(d) Vapor	and Mist.	(e) Mist. (f) Respira	able Mist. ((g) Inhalab	le Fractio	on.
Appropriate Engineering Controls	Good general vent	ilation sh	ould be su	fficient to	control w	vorker exp	osure to	airborne c	ontaminan	its.	
Environmental Exposure Controls	Emissions from ver requirements of en					ould be ch	necked to	ensure th	ey comply	/ with the	÷
INDIVIDUAL PROTECTION	MEASURES										
Hygiene Measures	Wash hands, i using the lava potentially co and safety sho	tory and ntaminat	at the end	of the wo	orking per ontaminal	riod. Appro ted clothin	priate te	chniques s	should be	used to r	emove
Eye/Face Protection	Safety eyewer is necessary to protection sho goggles.	o avoid e	exposure to	o liquid sp	lashes, mi	sts, gases	or dusts.	If contact	is possible	e, the foll	owing
Hand Protection	Chemical-resis handling chem								be worn at	t all times	when
Body Protection	Personal proterisks involved	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.									
Other Skin Protection		Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.									
Respiratory Protection	Use a properly assessment in levels, the haz	dicates t	his is nece	ssary. Res	pirator se	lection mu	ıst be bas	sed on kno	own or ant		

SECTION 9: PHYSICAL & CHEMICA	AL PROPERTIES
Physical State	Liquid
Color	Amber
Odor	Faint ether odor
Odor Threshold	Not available
рН	Not available
Melting Point	Not available
Boiling Point	Not available
Flash Point	Closed cup: > 200°F (93°C) (Pensky-Martens)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Lower and Upper Explosive (flammable) Limits	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Specific Gravity @ 77°F (25°C)	1.14
Solubility	Moderately soluble in water
Partition Coefficient: N-Octanol/Water	Not available

Auto-Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity @ 77°F (25°C)	Summer = 800 cps Winter = 500 cps
Volatility	Not available

SECTION 10: STABILITY & REACTIVITY						
Reactivity	No specific test data related to reactivity available for this product or its ingredients.					
Chemical Stability	e product is stable.					
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.					
Conditions to Avoid	Avoid exposure to moisture and high temperatures to protect product quality.					
Incompatible Materials	Strong oxidizing materials, strong acids and alkali or alkaline earth metals (aluminum, zinc, beryllium and copper). Avoid unintended contact with isocyanates.					
Hazardous Decomposition Products	Decomposition products may include carbon monoxide, carbon dioxide, nitrogen oxides, halogenated compounds, traces of ammonia vapors, phosphoric oxides, aldehydes and ketones, low molecular weight organic products, noxious and toxic fumes.					

ACUTE TOXICITY						
Product / Ingredient Name	Endpoint	Species	Result		Exposure	
1,1,1,3,3-Pentafluoropropane	LC50 Inhalation Vapor	Rat	> 1,110 mg/	> 1,110 mg/l		
ı,ı,ı,s,s-rentandoropropane	LD50 Dermal	Rabbit	> 2,000 mg	-		
	LC50 Inhalation Dusts & Mists	Rat	17.8 mg/l	1 hour		
Tris (2-chloro-1-methylethyl)	LC50 Inhalation Dusts & Mists	Rat	5 mg/l	5 mg/l		
Phosphate	LD50 Dermal	Rabbit	1,230 mg/k	(g	-	
	LD50 Oral	Rat	1,500 mg/l	(g	-	
Triethyl Phosphate	LD50 Oral	Rat	1,165 mg/kg	g	-	
Trans-dichloroethylene	LC50 Inhalation Gas	Rat	24,100 ppr	n	4 hours	
	LD50 Dermal	Rabbit	> 5 g/kg	> 5 g/kg		
	LD50 Oral	LD50 Oral Rat 1,235 mg/kg		g	-	
Ethanediol	LD50 Oral	Rat	4,700 mg/	4,700 mg/kg		
	LD50 Dermal	Rabbit	11,890 mg/	11,890 mg/kg		
2,2-Oxibisethanol	LD50 Oral	Rat	12,000 mg,	/kg	-	
IRRITATION / CORROSION		·	·			
Product / Ingredient Name	Result	Species	Score	Exposure	Observation	
Triethyl Phosphate	Eyes - Moderate irritant	Rabbit	-	100 mg	-	
Tuene dielelene ethodene	Eyes - Moderate irritant	Rabbit	-	10 mg	-	
Trans-dichloroethylene	Skin - Moderate irritant	Rabbit	-	24 h 500 mg	-	
	Eyes - Mild irritant	Rabbit	-	24 h 500 mg	-	
Ethanediol	Eyes - Mild irritant	Rabbit	-	1 h 100 mg	-	
Ethanedioi	Eyes - Moderate irritant	Rabbit	-	6 h 1440 mg	-	
	Skin - Mild irritant	Rabbit	-	555 mg	-	
	Eyes - Mild irritant	Rabbit	-	50 mg	-	
2,2-Oxibisethanol	Skin - Mild irritant	Human	-	72 h 112 mg Intermittent	-	
	Skin - Mild irritant	Rabbit - 500 mg		500 mg	-	

CARCINOGENICITY

CLASSIFICATION

Ingredient	OSHA	IARC	NTP	ACGIH	EPA	NIOSH		
Ethanediol	-	-	-	A4	-	None		
2,2-Oxibisethanol	-	-	-	-	-	None		
SPECIFIC TARGET ORGAN TO	XICITY (SINGLE	EXPOSURE)						
Product / Ingredient Name	Category		Route of E	xposure	Target Org	jans		
1,1,1,3,3-Pentafluoropropane	Category 3		Not applic	able	Narcotic ef	fects		
SPECIFIC TARGET ORGAN TO	XICITY (REPEAT	TED EXPOSURE)						
There is no data available.								
ASPIRATION HAZARD								
There is no data available.								
INFORMATION ON THE LIKELY	Y ROUTES OF E	XPOSURE						
Dermal contact. Eye contact. In	halation. Ingesti	on.						
POTENTIAL ACUTE HEALTH E	FFECTS							
Eye Contact	Causes seriou	ıs eye irritation.						
Inhalation	Exposure to exposure.	decomposition pro	oducts may caus	e a health hazard. Ser	ious effects may	be delayed following		
Skin Contact	No known sig	gnificant effects or	critical hazards.					
Ingestion	Irritating to m	nouth, throat and s	stomach.					
SYMPTOMS RELATED TO THE	PHYSICAL, CHE	MICAL AND TOX	ICOLOGICAL CH	IARACTERISTICS				
Eye Contact	Adverse sym	ptoms may includ	e the following: p	pain or irritation, wate	ring, redness.			
Inhalation	No known sig	No known significant effects or critical hazards.						
Skin Contact	No known sig	No known significant effects or critical hazards.						
Ingestion	No known sig	No known significant effects or critical hazards.						
DELAYED AND IMMEDIATE EF	FECTS AND AL	SO CHRONIC EFF	ECTS FROM SH	ORT AND LONG TER	M EXPOSURE			
SHORT TERM EXPOSURE								
Potential Immediate Effects	No known sig	gnificant effects or	critical hazards.					
Potential Delayed Effects	No known sig	gnificant effects or	critical hazards.					
LONG TERM EXPOSURE								
Potential Immediate Effects	No known sig	gnificant effects or	critical hazards.					
Potential Delayed Effects	No known sig	gnificant effects or	critical hazards.					
POTENTIAL CHRONIC HEALTH	I EFFECTS							
General	No known sig	gnificant effects or	critical hazards.					
Carcinogenicity	No known sig	gnificant effects or	critical hazards.					
Mutagenicity	No known sig	gnificant effects or	critical hazards.					
Teratogenicity	No known sig	gnificant effects or	critical hazards.					
Developmental Effects	No known sig	gnificant effects or	critical hazards.					
Fertility Effects	No known sig	gnificant effects or	critical hazards.					
NUMERICAL MEASURES OF TO	OXICITY - ACUT	E TOXICITY ESTI	MATES					
Route	ATE Value							
Oral	5632.4 mg/kg	g						
Dermal	68750 mg/kg	9						
Inhalation (vapors)	392.9 mg/l							

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

	Result		Species	Exposure		
	Acute EC50 > 97.9 mg/l		Daphnia	48 hours		
1,1,1,3,3-Pentafluoropropane	Acute EC50 > 81.8 mg/l F		Fish	96 hours		
Triethyl Phosphate	Acute LC50 100 mg/l fresh water	Acute LC50 100 mg/l fresh water			96 hours	
Trans-dichloroethylene	Acute LC50 220,000 Qg/l fresh wa	ater	Daphnia - Daphnia magna		48 hours	
	Acute LC50 100,000 Qg/I marine v	vater	Crustaceans - Crangon cran	gon - Adult	48 hours	
Ethanediol	Acute LC50 10,000,000 Qg/I fresh	water	Daphnia - Daphnia magna		48 hours	
	Acute LC50 8,050,000 Qg/l fresh	water	Fish - Pimephales promelas		96 hours	
2,2-Oxibisethanol	Acute LC50 32,000 ppm fresh wat	er	Fish - Gambusia affinis - Adu	ult	96 hours	
PERSISTENCE AND DEGRADA	BILITY					
Product / Ingredient Name	Aquatic Half-life Photolysis Biodegrada				pility	
Ethanediol	-		Readily			
BIOACCUMULATIVE POTENTIA	AL	•				
Product / Ingredient Name	LogPow		Potential			
Tris (2-chloro-1-methylethyl) Phosphate	2.68					
Triethyl Phosphate	1.11	< 1.3		Low		
Trans-dichloroethylene	2.09	-		Low		
Ethanediol	-1.36	-		Low		
2,2-Oxibisethanol	-1.98 100 Low					
MOBILITY IN SOIL						
Soil/Water Partition Coefficient (Koc)	There is no data available.					
Other Adverse Effects	No known significant effects of crit	ical haza	rds.			

SECTION 13: DISPOSAL CONSIDERATION								
Disposal Methods	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.							
UNITED STATES - RCRA TOXIC HAZARDOUS WASTE "U" LIST								
Product / Ingredient Name	CAS # Status Reference Number							
Trans-dichloroethylene	156-60-5	Listed	U079					

SECTION 14: TRANSPORTATION INFORMATION					
рот					
UN Number	Not regulated				
UN Proper Shipping Name	-				
Transport Hazard Class(es)	-				
Packing Group	-				
Environmental Hazard	No				
Additional Information	-				
TDG					
UN Number	Not regulated				
UN Proper Shipping Name	-				

Transport Hazard Class(es)	-
Packing Group	-

Environmental Hazard	No
Additional Information	-
IMDG	
UN Number	Not regulated
UN Proper Shipping Name	-
Transport Hazard Class(es)	-
Packing Group	-
Environmental Hazard	No
Additional Information	-
IATA	
UN Number	Not regulated
UN Proper Shipping Name	-
Transport Hazard Class(es)	-
Packing Group	-
Environmental Hazard	No
Additional Information	-
AERG: Not applicable.	
Special Precautions for User	Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code	Not available

SECTION 15: REGULATORY INFOR	MATION
UNITED STATES	
U.S. Federal Regulations	TSCA 8(a) PAIR: 2,2-Dimethylpropan-1-ol, tribromo derivative; Triethyl phosphate; Octamethylcyclotetrasiloxane. TSCA 8(c) calls for record of SAR: Triethyl phosphate. United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Trans-dichloroethylene.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Listed
Clean Air Act Section 602 Class I Substances	Not listed
Clean Air Act Section 602 Class II Substances	Not listed
DEA List I Chemicals (Precursor Chemicals)	Not listed
DEA List II Chemicals (Essential Chemicals)	Not listed
SARA 302/304	No products were found
SARA 304 RQ	Not applicable
SARA 311/312	
CLASSIFICATION	
Immediate (acute) health hazard	

COMPOSITION / INFORMATION ON INGREDIENTS

Product / Ingredient Name	%		Fire Hazard	Sudde of Pre	en Release essure	Reactive	(a	nmediate cute) Health azard	Delayed (chronic) Health Hazard
1,1,1,3,3-Pentafluoropropane	5 - 10		No	Yes		No	Ye	es	No
Tris (2-chloro-1-methylethyl) Phosphate	5 - 10		No	No		No	Ye	es	No
Triethyl Phosphate	1 - 5		No	No		No	Yes		No
Trans-dichloroethylene	1 - 5		Yes	No		No	Ye	es	No
Ethanediol	1 - 5		No	No		No	Ye	es	No
2,2-Oxibisethanol	1 - 5		No	No		No	Ye	es	No
N,N,N',N',N",N"-Hexamethyl- 1,3,5-triazine-1,3,5(2H,4H,6H)- tripropanamine	1 - 5		No	No		No	Yes		No
SARA 313									
		Produc	t Name		CAS#			%	
Form R - Reporting Requirement	:S	Ethane	diol		107-21-1			1-5	
Supplier Notification Ethan			ediol		107-21-1 1 - 5				
SARA 313 notifications must not l redistribution of the notice attach	be detache ned to cop	ed from ies of th	the SDS and any e SDS subsequer	copying ntly redist	and redistri ributed.	bution of the SDS	shal	l include copyii	ng and
STATE REGULATIONS									
Massachusetts	The follo	The following components are listed: Ethanediol; Trans-dichloroethylene; Glycerol.							
New York	The follo	The following components are listed: Ethanediol; Trans-dichloroethylene.							
New Jersey	The follo	The following components are listed: Ethanediol; Glycerol.							
Pennsylvania	The follo	The following components are listed: Ethanediol; 2,2′ -Oxybisethanol; Trans-dichloroethylene.							
California Prop. 65	Glycerol.	Glycerol.							
CANADA									
CANADIAN LISTS									
Canadian NPRI	The follo	wing cor	mponents are list	ed: Ethar	ediol; 1,1,1,3,	3-Pentafluorobut	ane;		
1,1,1,3,3-Pentafluoropropane.									
CEPA Toxic Substances	The follo	wing cor	mponents are list	ed: 1,1,1,3,	3-Pentafluoi	robutane; 1,1,1,3,3-	Penta	afluoropropane	
INTERNATIONAL LISTS / NATIO	NAL INVE	NTORY							
Australia	Not dete	rmined							
China	Not determined.								
Europe	Not determined.								
Japan	Not dete	rmined.							
Malaysia	Not dete	rmined.							
New Zealand	Not dete	rmined.							
Philippines	Not dete	Not determined.							

SECTION 16: OTHER INFORMATION	
Prepared By	Demilec Inc Technical Department
Preparation Date (Y/M/D)	2018-7-25
Current Issue Date (Y/M/D)	2018-7-25

Notice to Reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Not determined.

Not determined.

Republic of Korea

Taiwan