

**B218-00/A1004****SAFETY DATA SHEET****Compliant SDS for GHS: HazCom 2012 / United States; WHMIS 2015 / Canada.**

SECTION 1: IDENTIFICATION	
Supplier/Manufacturer: Huntsman Building Solutions 870 Cure-Boivin, Quebec, Canada J7G 2A7 450-437-0123 1-866-437-0223 Fax: 450-437-2338 infocanada@huntsmanbuilds.com www.huntsmanbuildingsolutions.com/CA	GHS Product Identifier: B218-00/A1004 Chemical Name: Polyurethane resin. Product type: Liquid. Identified Use: Component B of a Spray Applied Polyurethane System.
Emergency Telephone (24/7)	In Canada: CANUTEC 613-996-6666 or *666 (cellular). In USA: CHEMTREC: 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION	
OSHA / HCS Status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the Substance or Mixture	Not classified.
GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS	
Hazard Pictograms	None.
Signal Word	No signal word.
Hazard Statements	No known significant effects or critical hazards.
PRECAUTIONARY STATEMENTS	
Prevention	Not applicable.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)	
Physical Hazards Not Otherwise Classified (PHNOC)	None known.
Health Hazards Not Otherwise Classified (HHNOC)	None known.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS	
Substance/Mixture	Mixture.
Chemical Name	Polyurethane resin.
CAS NUMBER/OTHER IDENTIFIERS	
CAS Number	Not applicable.
Product Code	Not available.

INGREDIENTS	CAS #	%
Tris(2-Chloro-1-methylethyl)phosphate	13674-84-5	5 - 10
Ethanediol	107-21-1	1 - 5
2,2 - Oxibisethanol	111-46-6	1 - 5

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (f) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES	
DESCRIPTION OF NECESSARY 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. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.
Skin Contact	Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if symptoms occur.
MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED	
POTENTIAL ACUTE HEALTH EFFECTS	
Eye Contact	No known significant effects or critical hazards.
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.
OVER-EXPOSURE SIGNS/SYMPTOMS	
Eye Contact	No known significant effects or critical hazards.
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.

See toxicological information (Section 11)

SECTION 5: FIRE FIGHTING MEASURES	
Suitable Extinguishing Media	Use an extinguishing agent for the surrounding fire.
Unsuitable Extinguishing Media	None known.
Specific Hazards Arising from the Chemical	No specific fire or explosion hazard.
Hazardous Thermal Decomposition Products	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, phosphorus oxides, halogenated compounds.
Special Protective Actions for Fire Fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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".
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).

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Spill	Stop leak if without risk. Move containers from spill area. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
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SECTION 7: HANDLING AND STORAGE**PRECAUTIONS FOR SAFE HANDLING**

Protective Measures	Put on appropriate personal protective equipment (see Section 8).
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. See Section 10 for incompatible materials before handling or use.
Storage Temperature	15 – 25°C (59–77°F) (minimum – maximum).
Storage Life	6 Months.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**CONTROL PARAMETERS - UNITED STATES****OCCUPATIONAL EXPOSURE LIMITS**

INGREDIENT NAME	Exposure Limits
tris(2-Chloro-1-methylethyl) phosphate	None.
Ethanediol	ACGIH TLV (United States, 3/2017). STEL: 10 mg/m ³ 15 minutes. Form: Inhalable fraction. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction. TWA: 25 ppm 8 hours. Form: Vapor fraction.
2,2' -Oxybisethanol	AIHA WEEL (United States, 10/2011). TWA: 10 mg/m ³ 8 hours.

CONTROL PARAMETERS - CANADA**OCCUPATIONAL EXPOSURE LIMITS**

INGREDIENT NAME	Exposure Limits
Ethanediol	CA Ontario Provincial (Canada, 1/2018). C: 100 mg/m ³ Form: Aerosol only. CA British Columbia Provincial (Canada, 6/2017). C: 100 mg/m ³ Form: Aerosol. TWA: 10 mg/m ³ 8 hours. Form: Particulate. STEL: 20 mg/m ³ 15 minutes. Form: Particulate. C: 50 ppm Form: Vapor. CA Saskatchewan Provincial (Canada, 7/2013). CEIL: 100 mg/m ³ Form: Aerosol.

	<p>CA Quebec Provincial (Canada, 1/2014). STEV: 50 ppm 15 minutes. Form: Vapor and mist. STEV: 127 mg/m³ 15 minutes. Form: Vapor and mist. CA Alberta Provincial (Canada, 4/2009). C: 100 mg/m³.</p>
2,2' -Oxybisethanol	<p>AIHA WEEL (United States, 10/2011). TWA: 10 mg/m³ 8 hours.</p>
Appropriate Engineering Controls	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
INDIVIDUAL PROTECTION MEASURES	
Hygiene Measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/Face Protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand Protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body Protection	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	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Physical State	Liquid.
Color	Blue or brown.
Odor	Not available.
Odor Threshold	Not available.
pH	Not available.
Melting Point	Not available.
Boiling Point	Not available.
Flash Point	Closed Cup: >93°C (>199.4°F)
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 @ 25°C (77°F)	1.18-1.22

Solubility	Not available.
Partition Coefficient: N-Octanol/Water	Not available.
Auto-Ignition Temperature	Not available.
Decomposition Temperature	Not available.
Viscosity @ 25°C (77°F) (cps)	Not available.
Volatility	Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability	The 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	Reactive or incompatible with the following materials: Oxidizing materials. Avoid unintended contact with isocyanates.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

PRODUCT / INGREDIENT NAME	Endpoint	Species	Result	Exposure
Tris (2-Chloro-1-methylethyl) phosphate	LD50 Oral	Rat	1500 mg/kg	
Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
2,2' -Oxybisethanol	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-

IRRITATION / CORROSION

PRODUCT / INGREDIENT NAME	Result	Species	Score	Exposure	Observation
Ethanediol	Eyes - Mild irritant	Rabbit	-	24 h 500 mg	-
	Eyes - Mild irritant	Rabbit	-	1 h 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	6 h 1440 mg	-
	Skin - Mild irritant	Rabbit	-	555 mg	-
2,2' -Oxybisethanol	Eyes - Mild irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

SENSITIZATION

There is no data available.

MUTAGENICITY

There is no data available.

CARCINOGENICITY

There is no data available.

REPRODUCTIVE TOXICITY

There is no data available.

TERATOGENICITY

There is no data available.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

There is no data available.	
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)	
There is no data available.	
ASPIRATION HAZARD	
There is no data available.	
INFORMATION ON THE LIKELY ROUTES OF EXPOSURE	
Dermal contact. Eye contact. Inhalation. Ingestion.	
POTENTIAL ACUTE HEALTH EFFECTS	
Eye Contact	No known significant effects or critical hazards.
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.
SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS	
Eye Contact	No known significant effects or critical hazards.
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.
DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE	
SHORT TERM EXPOSURE	
Potential Immediate Effects	No known significant effects or critical hazards.
Potential Delayed Effects	No known significant effects or critical hazards.
LONG TERM EXPOSURE	
Potential Immediate Effects	No known significant effects or critical hazards.
Potential Delayed Effects	No known significant effects or critical hazards.
POTENTIAL CHRONIC HEALTH EFFECTS	
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental Effects	No known significant effects or critical hazards.
Fertility Effects	No known significant effects or critical hazards.
NUMERICAL MEASURES OF TOXICITY - ACUTE TOXICITY ESTIMATES	
Route	ATE Value
Oral	6325.6 mg/kg

SECTION 12: ECOLOGICAL INFORMATION			
TOXICITY			
PRODUCT / INGREDIENT NAME	Result	Species	Exposure
Ethanediol	Acute LC50 6900000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia -Neonate	48 hours
	Acute LC50 41000000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2,2' -Oxybisethanol	Acute LC50 75200000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

PERSISTENCE AND DEGRADABILITY			
There is no data available.			
BIOACCUMULATIVE POTENTIAL			
PRODUCT / INGREDIENT NAME	LogP _{ow}	BCF	Potential
tris(2-Chloro-1-methylethyl) phosphate	2.68	0.8 to 2.8	low
Ethenediol	-1.36	-	low
2,2' -Oxybisethanol	-1.98	100	low
MOBILITY IN SOIL			
Soil/Water Partition Coefficient (K _{oc})	Not data available.		
Other Adverse Effects	No known significant effects or critical hazards.		

SECTION 13: DISPOSAL CONSIDERATIONS	
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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORTATION INFORMATION	
DOT	
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 INFORMATION

United States

U.S. Federal Regulations	United States inventory (TSCA 8b): All components are listed or exempted.
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

Not applicable.

COMPOSITION/INFORMATION ON INGREDIENTS

NAME	Classification
tris(2-Chloro-1-methylethyl) phosphate	ACUTE TOXICITY (oral) – Category 4
Ethanediol	ACUTE TOXICITY (oral) – Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
2,2' -Oxybisethanol	ACUTE TOXICITY (oral) – Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A


SARA 313

	Product Name	CAS number
Form R – Reporting requirements	Ethanediol	107-21-1
Supplier Notification	Ethanediol	107-21-1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

STATE REGULATIONS

Massachusetts	The following components are listed: Ethanediol.
New York	The following components are listed: Ethanediol.

New Jersey	The following components are listed: Ethanediol.
Pennsylvania	The following components are listed: Ethanediol; 2,2' -Oxybisethanol.
California Prop. 65	 WARNING: This product can expose you to Ethanediol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
CANADA	
CANADIAN LISTS	
Canadian NPRI	The following components are listed: Ethanediol.
CEPA Toxic Substances	None of the components are listed.
Canada Inventory	All components are listed or exempted.

SECTION 16: OTHER INFORMATION

HISTORY

Prepared by	Huntsman Building Solutions – EHS – Dept.
Preparation Date (y-m-d)	2021-05-13
Current Issue Date (y-m-d)	2021-05-13

KEY TO ABBREVIATIONS

ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IMDG	International Maritime Dangerous Goods
LogPow	Logarithm of the octanol/water partition coefficient
MARPOL 73/78	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN	United Nations

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.