

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: 2SPEC Gun Foam

1.2. Intended Use of the Product

Polyurethane Foam Sealant

1.3. Name, Address, and Telephone of the Responsible Party

Rivenco Industries Ltd
 150 Curtis Dr.
 Guelph, Ontario N1K 1N5
 Canada
 T 1-800-565-9936
 Cell (519) 766-8154
 Office (519) 822-0544
 Toll Free (800) 565-9936
 Fax (519) 822-0543

website: www.rivenco.com

email: sales@rivenco.com

1.4. Emergency Telephone Number

Emergency Number : CHEMTREC: 1-800-424-9300
 CANUTEC: 1-613-996-6666 (CANADA)
 QM: 1-887-387-7745 (CANADA)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flammable aerosol Category 1	H222
Acute toxicity (inhalation:gas) Category 4	H332
Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2A	H319
Respiratory sensitization, Category 1	H334
Skin sensitization, Category 1	H317
Carcinogenicity Category 2	H351
Reproductive toxicity, Additional category, Effects on or via lactation	H362
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity (repeated exposure) Category 2	H373
Simple Asphyxiant	
Hazardous to the aquatic environment – Acute Hazard Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard Category 2	H411

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H222 - Extremely flammable aerosol.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.

2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer (Inhalation).
H362 - May cause harm to breast-fed children.
H373 - May cause damage to organs (respiratory system, lungs, eyes) through prolonged or repeated exposure (Inhalation).
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.
May displace oxygen and cause rapid suffocation.

Precautionary Statements (GHS-US/CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P260 - Do not breathe vapors, mist, or spray.
P263 - Avoid contact during pregnancy/while nursing.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
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2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

<p>Isocyanic acid, polymethylenepolyphenylene ester</p>	<p>Polymethylene polyphenylene isocyanate / Polymeric diphenylmethane diisocyanate / Polymeric MDI / Polymethylene polyphenyl isocyanate / Polymethylenepolyphenylene isocyanate / Polymethylene polyphenylisocyanate / Methylene diphenyl diisocyanate (polymeric) / PMDI / PAPI / Polymeric methylene diphenyl diisocyanate / .alpha.- (Isocyanatobenzyl)-.omega.- (isocyanatophenyl)-poly[(isocyanatophenylene)methylene]</p>	<p>(CAS-No.) 9016-87-9</p>	<p>30 – 60</p>	<p>Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373</p>
<p>Glyceryl polypropylene glycol triether</p>	<p>Glycerol propylene oxide polymer / Laprol 3003 / Laprol-503 / Polyoxypropylene glycerol ether / Polyoxypropylene glyceryl ether / .alpha.,.alpha.',.alpha.'"-1,2,3-Propanetriyltris[.omega.-hydroxypoly-[oxy(methyl-1,2-ethanediyl)]] / Polypropylene glycol glycerol ether / Propoxylated glycerol / PPG-16 glyceryl ether / Poly(oxy(methyl-1,2-ethanediyl)), .alpha.,.alpha.',.alpha.'"-1,2,3-propanetriyltris(.omega.-hydroxy- / Polyoxypropylene (10) glyceryl ether / Polyoxypropylene glycerin ether / Propoxylated glycerin / Glycerol propoxylated / Glycerin propoxylate / PPG-10 GLYCERYL ETHER / Propylene oxide-glycerol polymer / 1,2,3-Propanetriol, methyloxirane polymer / Polypropylene glycol glycerol triether / Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha.'"-1,2,3-propanetriyltris[.omega.-hydroxy- / Poly(oxypropylene) glycerol triether / Glyceryl polypropylene glycol ether / Glycerol, propoxylated / Glycerol tri(polyoxypropylene) ether / Glycerol poly(oxypropylene)triol / Poly(oxypropylene) triol</p>	<p>(CAS-No.) 25791-96-2</p>	<p>10 – 30</p>	<p>Not classified</p>
<p>Alkanes, C14-17, chloro</p>	<p>Alkanes, C14-17, chloro- / Paraffin, C14-17 chlorinated / Medium chain (C14-17) chlorinated paraffins (MCCPs) / Chlorinated paraffins (C14-17) / Medium chain (C14-17) chlorinated paraffins / Chloroparaffins, unbranched, mid-chain C_xH_(2x-y+2)Cl_y,</p>	<p>(CAS-No.) 85535-85-9</p>	<p>5 – 10</p>	<p>Acute Tox. 4 (Oral), H302 Lact, H362 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</p>

2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

	where x = 14-17 and y = 1-17 / Medium chain chlorinated paraffins (C14-17) / C14-17 Chloroalkanes / Chloroalkanes C14-17 / Chloroalkanes (C14-17) / Intermediate chain chlorinated paraffins (C14-17) / Chlorinated paraffin (C14-17) / Chloroalkanes, C14-17 / Chlorinated paraffins, C14-17 / Mixture of chlorinated linear alkanes C14-17 / Paroil 1048			
Isobutane	2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / isobutane	(CAS-No.) 75-28-5	5 – 10	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
Dimethyl ether	Methane, oxybis- / Methyl ether / Wood ether / Methoxymethane / Methane, 1,1'-oxybis- / DIMETHYL ETHER / Oxybismethane / Dimethyl oxide / Butylene	(CAS-No.) 115-10-6	5 – 10	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
1,1-Difluoroethane	Ethane, 1,1-difluoro- / Ethylidene difluoride / Fluorocarbon 152a / Halocarbon 152A / HFC 152a / Refrigerant gas R 152a / HFC-152a / Hydrofluorocarbon 152a / Freon 152a / HYDROFLUOROCARBON 152A / 1,1-Difluoroethylene	(CAS-No.) 75-37-6	1 – 5	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
Phosphoric trichloride reaction products with propylene oxide	Reaction products of phosphoryl trichloride and methyloxirane / Phosphorous oxychloride, reaction products with propylene oxide / Reaction products of phosphoryl trichloride and 2-methyloxirane	(CAS-No.) 1244733-77-4	1 – 5	Acute Tox. 4 (Oral), H302 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Propane	Normal propane / PROPANE / n-Propane / R290	(CAS-No.) 74-98-6	1 – 5	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy

* The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200. Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%). Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Get medical advice/attention.

Skin Contact: Immediately remove contaminated clothing. Wash affected area with soap and water for at least 15 minutes. Obtain medical attention if irritation/rash develops or persists.

Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

2SPEC Gun Foam

Safety Data Sheet

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4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Asphyxia by lack of oxygen: risk of death. May cause damage to organs (lungs, respiratory system, Eye) through prolonged or repeated exposure (inhalation). Suspected of causing cancer (inhalation). May cause harm to breast-fed children. Skin sensitization. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled.

Inhalation: Irritation of the respiratory tract and the other mucous membranes. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction. Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Suspected of causing cancer (Inhalation). May cause damage to organs (lungs, respiratory system, Eyes) through prolonged or repeated exposure (Inhalation). Repeated and prolonged exposure may produce an allergic skin reaction or may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, dry chemical, or sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable aerosol.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. DO NOT fight fire when fire reaches containers. Evacuate area.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Hydrogen Fluoride . Carbon oxides, Nitrogen oxides. Hydrocarbons. Formaldehyde. Methanol. Chlorine compounds. Phosphorus oxides.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not breathe mist, spray, gas, vapors. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

2SPEC Gun Foam

Safety Data Sheet

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6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Ventilate area. As an immediate precautionary measure, isolate spill or leak area in all directions. Stop leak, if possible without risk.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Isolate area until gas has dispersed. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Pressurized container: may burst if heated. Do not pierce or burn, even after use. Do not puncture or incinerate container. Asphyxiating gas at high concentrations.

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not spray on an open flame or other ignition source. Do not get in eyes, on skin, or on clothing. Do not breathe gas. Avoid contact during pregnancy/while nursing. Use only outdoors or in a well-ventilated area. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Keep only in the original container in a cool, well ventilated place away from ignition sources. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Incompatible Materials: finely divided metals, magnesium and alloys containing more than 2% magnesium. Can react violently if in contact with alkali metals and alkaline earth metal - sodium, potassium, barium. Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Polyurethane Foam Sealant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
Alberta	OEL TWA	0.07 mg/m ³
Alberta	OEL TWA	0.005 ppm
Isobutane (75-28-5)		
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers))
USA NIOSH	NIOSH REL (TWA)	1900 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	800 ppm
British Columbia	OEL STEL	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL	1000 ppm (explosion hazard (Butane, isomers))
New Brunswick	OEL STEL	1000 ppm
Newfoundland & Labrador	OEL STEL	1000 ppm (explosion hazard (Butane, isomers))
Nova Scotia	OEL STEL	1000 ppm (explosion hazard (Butane, isomers))
Nunavut	OEL STEL	1250 ppm (Butane, all isomers)
Nunavut	OEL TWA	1000 ppm (Butane, all isomers)
Northwest Territories	OEL STEL	1250 ppm (Butane, all isomers)
Northwest Territories	OEL TWA	1000 ppm (Butane, all isomers)
Ontario	OEL STEL	1000 ppm (explosion hazard (Butane, all isomers))
Prince Edward Island	OEL STEL	1000 ppm (explosion hazard (Butane, isomers))
Saskatchewan	OEL STEL	1250 ppm (Butane, all isomers)
Saskatchewan	OEL TWA	1000 ppm (Butane, all isomers)
Dimethyl ether (115-10-6)		

2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA AIHA	WEEL TWA [ppm]	1000 ppm
British Columbia	OEL TWA	1000 ppm
1,1-Difluoroethane (75-37-6)		
USA AIHA	WEEL TWA [ppm]	1000 ppm
Propane (74-98-6)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
USA OSHA	OSHA PEL (TWA) [1]	1800 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	1800 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	1000 ppm
USA IDLH	IDLH [ppm]	2100 ppm (10% LEL)
Alberta	OEL TWA	1000 ppm
Nunavut	OEL STEL	1250 ppm
Nunavut	OEL TWA	1000 ppm
Northwest Territories	OEL STEL	1250 ppm
Northwest Territories	OEL TWA	1000 ppm
Québec	VEMP (OEL TWAEV)	1800 mg/m ³
Québec	VEMP (OEL TWAEV)	1000 ppm
Saskatchewan	OEL STEL	1250 ppm
Saskatchewan	OEL TWA	1000 ppm
Aliphatic hydrocarbon gases: Alkanes (C1-4)		
Nunavut	OEL STEL	1250 ppm
Nunavut	OEL TWA	1000 ppm
Northwest Territories	OEL STEL	1250 ppm
Northwest Territories	OEL TWA	1000 ppm
Saskatchewan	OEL STEL	1250 ppm
Saskatchewan	OEL TWA	1000 ppm
Aliphatic hydrocarbon gases, alkane (C2-4)		
Alberta	OEL TWA	1000 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released. Oxygen detectors should be used when asphyxiating gases may be released.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Respiratory protection of the dependent type.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Consumer Exposure Controls: Avoid contact during pregnancy/while nursing

Other Information: When using, do not eat, drink or smoke.

2SPEC Gun Foam

Safety Data Sheet

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Aerosol
Appearance	: Black
Odor	: Oily musty
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: 0.99 (water =1)
Specific Gravity	: No data available
Solubility	: Water: Insoluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
VOC content	: 150 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability:

Flammable aerosol. Pressurized container: may burst if heated.

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials:

finely divided metals, magnesium and alloys containing more than 2% magnesium. Can react violently if in contact with alkali metals and alkaline earth metal - sodium, potassium, barium. Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Hydrogen fluoride. Carbon oxides, Nitrogen oxides. Hydrocarbons. Formaldehyde. Methanol. Chlorine compounds. Phosphorus oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Harmful if inhaled.

LD50 and LC50 Data:

2SPEC Gun Foam	
ATE US/CA (gas)	7,500.00 ppmV/4h

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

2SPEC Gun Foam

Safety Data Sheet

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Germ Cell Mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (respiratory system, lungs, eyes) through prolonged or repeated exposure (Inhalation).

Reproductive Toxicity: May cause harm to breast-fed children.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction. Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Suspected of causing cancer (Inhalation). May cause damage to organs (lungs, respiratory system, Eyes) through prolonged or repeated exposure (Inhalation). Repeated and prolonged exposure may produce an allergic skin reaction or may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
LD50 Oral Rat	49000 mg/kg
LD50 Dermal Rabbit	> 9.4 g/kg (Source: WHO)
LC50 Inhalation Rat	490 mg/m ³ (Exposure time: 4 h Source: NLM_CIP)
Glyceryl polypropylene glycol triether (25791-96-2)	
LD50 Oral Rat	> 64 ml/kg (Source: NLM_CIP)
LD50 Dermal Rat	> 2000 mg/kg (Source: ECHA_API)
Alkanes, C14-17, chloro (85535-85-9)	
LD50 Oral Rat	2000 mg/kg (Source: IUCLID)
Isobutane (75-28-5)	
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min Source: ECHA_API)
Dimethyl ether (115-10-6)	
LC50 Inhalation Rat	164000 ppm/4h
1,1-Difluoroethane (75-37-6)	
LC50 Inhalation Rat	437500 ppm/4h
Phosphoric trichloride reaction products with propylene oxide (1244733-77-4)	
LD50 Oral Rat	632 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 7 mg/l
Propane (74-98-6)	
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min Source: ECHA_API)
Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Alkanes, C14-17, chloro (85535-85-9)	
EC50 - Crustacea [1]	0.0059 mg/l

2SPEC Gun Foam

Safety Data Sheet

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NOEC Chronic Crustacea	0.01 mg/l (Species: Daphnia magna)
Dimethyl ether (115-10-6)	
LC50 Fish 1	> 4.1 g/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static] Source: ECHA)
1,1-Difluoroethane (75-37-6)	
LC50 Fish 1	733 mg/l
EC50 - Crustacea [1]	720 mg/l
ErC50 algae	419 mg/l
Phosphoric trichloride reaction products with propylene oxide (1244733-77-4)	
LC50 Fish 1	51 mg/l
EC50 - Crustacea [1]	131 mg/l
NOEC Chronic Crustacea	32 mg/l

12.2. Persistence and Degradability

2SPEC Gun Foam	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

2SPEC Gun Foam	
Bioaccumulative Potential	Not established.

Alkanes, C14-17, chloro (85535-85-9)	
BCF Fish 1	(4440 L/kg (normalised lipid fraction))
Partition coefficient n-octanol/water (Log Pow)	7 at 20 °C / 68 °F)

Isobutane (75-28-5)	
BCF Fish 1	1.57 – 1.97
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 at 20 °C / 68 °F (at pH 7)

Dimethyl ether (115-10-6)	
Partition coefficient n-octanol/water (Log Pow)	-0.18

Phosphoric trichloride reaction products with propylene oxide (1244733-77-4)	
Partition coefficient n-octanol/water (Log Pow)	2.68 at 30 °C / 86 °F (at pH 7.1)

Propane (74-98-6)	
Partition coefficient n-octanol/water (Log Pow)	1.09 at 20 °C / 68 °F (at pH 7)

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations, Do not pierce or burn, even after use

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : AEROSOLS

Hazard Class : 2.1



2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Identification Number : UN1950
Label Codes : 2.1
Marine Pollutant : Marine pollutant
ERG Number : 126

2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

14.2. In Accordance with IMDG

Proper Shipping Name : AEROSOLS
 Hazard Class : 2.1
 Identification Number : UN1950
 Label Codes : 2.1
 EmS-No. (Fire) : F-D
 EmS-No. (Spillage) : S-U
 Marine pollutant : Marine pollutant



14.3. In Accordance with IATA

Proper Shipping Name : AEROSOLS, FLAMMABLE
 Hazard Class : 2.1
 Identification Number : UN1950
 Label Codes : 2.1
 ERG Code (IATA) : 10L



14.4. In Accordance with TDG

Proper Shipping Name : AEROSOLS
 Hazard Class : 2.1
 Identification Number : UN1950
 Label Codes : 2.1
 Marine Pollutant (TDG) : Marine pollutant



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

2SPEC Gun Foam	
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Respiratory or skin sensitization Health hazard - Skin corrosion or Irritation Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Serious eye damage or eye irritation Health hazard - Carcinogenicity Health hazard - Reproductive toxicity Health hazard - Acute toxicity (any route of exposure) Health hazard - Simple asphyxiant
Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
SARA Section 313 - Emission Reporting	1 %
Glyceryl polypropylene glycol triether (25791-96-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Alkanes, C14-17, chloro (85535-85-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance. S - S - indicates a substance that is identified in a final Significant New Use Rule. 5E - 5E - indicates a substance that is the subject of a TSCA section 5E order.
Isobutane (75-28-5)	

2SPEC Gun Foam

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Dimethyl ether (115-10-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

1,1-Difluoroethane (75-37-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Propane (74-98-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.2. US State Regulations

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

U.S. - New Jersey - Right to Know Hazardous Substance List

Isobutane (75-28-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

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

U.S. - Massachusetts - Right To Know List

Dimethyl ether (115-10-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

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

U.S. - Massachusetts - Right To Know List

1,1-Difluoroethane (75-37-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Massachusetts - Right To Know List

Propane (74-98-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

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

U.S. - Massachusetts - Right To Know List

15.3. Canadian Regulations

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

Listed on the Canadian DSL (Domestic Substances List)

Glyceryl polypropylene glycol triether (25791-96-2)

Listed on the Canadian DSL (Domestic Substances List)

Alkanes, C14-17, chloro (85535-85-9)

Listed on the Canadian DSL (Domestic Substances List)

Isobutane (75-28-5)

Listed on the Canadian DSL (Domestic Substances List)

Dimethyl ether (115-10-6)

Listed on the Canadian DSL (Domestic Substances List)

1,1-Difluoroethane (75-37-6)

Listed on the Canadian DSL (Domestic Substances List)

Propane (74-98-6)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 12/28/2023

Revision

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

H220	Extremely flammable gas
H222	Extremely flammable aerosol

2SPEC Gun Foam

Safety Data Sheet

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H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H362	May cause harm to breast-fed children
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)

AU_WES: Australia WES

CHEMVIEW: ChemView (U.S. Environmental Protection Agency)

EC_RAR: European Commission Renewal Assessment Report

EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits

ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports

ECHA_API: European Chemicals Agency API

ECHA_RAC: ECHA Committee for Risk Assessment

EFSA: European Food Safety Authority

EPA: U.S. Environmental Protection Agency

EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)

EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)

EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)

EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)

EU_CLH: European Union Harmonised Classification and Labelling Proposal

EU_RAR: European Union Risk Assessment Report

FOOD_JOURN: Food Research Journal (1956)

IARC: The International Agency for Research on Cancer

IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles

IUCLID: International Uniform Chemical Information Database

JAPAN_GHS: Japan GHS Basis for Classification Data

JP_J-CHECK: Japan J-Check

KR_NIER: South Korea National Institute of Environmental Research Evaluations

NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme

NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)

NLM_CIP: National Library of Medicine ChemID plus database

NLM_HSUB: National Library of Medicine Hazardous Substance Data Bank

NLM_PUBMED: National Library of Medicine PubMed database

NTP: National Toxicology Program

NZ_CCID: New Zealand Chemical Classification and Information Database

OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)

OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)

WHO: World Health Organization

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)