

SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier:** WINTER Gun Foam
Other means of identification:
Non-applicable
- 1.2 Recommended use of the chemical and restrictions on use:**
Relevant uses: Foam
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
www.foamsealanttechnologies.com
2904 Wyndham Ln. Richardson, TX 75082
tel. (972) 979 4695
- 1.4 Emergency phone number:** 911

SECTION 2: HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
NFPA:
Health Hazards: 3
Flammability Hazards: 4
Instability Hazards: 0
Special Hazards: Non-applicable
- 29 CFR 1910.1200:**
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Aerosol 1: Flammable aerosols, Category 1, H222
Carc. 2: Carcinogenicity, Category 2, H351
Eye Irrit. 2A: Eye irritation, Category 2A, H319
Press. Gas: Pressure Gases, H280
Resp. Sens. 1: Sensitisation, respiratory, Category 1, H334
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1: Sensitisation, skin, Category 1, H317
STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

NFPA:



29 CFR 1910.1200:

Danger



Hazard statements:

- H222 - Extremely flammable aerosol.
- H280 - Contains gas under pressure, may explode if heated.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 - May cause respiratory irritation.
- H351 - Suspected of causing cancer.
- H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

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SECTION 2: HAZARD(S) IDENTIFICATION (continued)

P101: If medical advice is needed, have product container or label at hand.
 P102: Keep out of reach of children.
 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.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/face protection/protective clothing.
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
 P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
 P501: Dispose of the contents/containers according to the local, state and federal regulations.

Substances that contribute to the classification

4,4'-methylenediphenyl diisocyanate, isomers and homologues

Additional labeling:

FEDERAL HAZARDOUS SUBSTANCES ACT REGULATIONS (§1500.130 Self-pressurized containers: labeling):

Warning—contents under pressure.

Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120 °F. Keep out of the reach of children.

2.3 Hazards not otherwise classified (HNOC):

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Mixture composed of organic substances

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 9016-87-9	4,4'-methylenediphenyl diisocyanate, isomers and homologues Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2A: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger	40 - <60 %
CAS: 1244733-77-4	Reaction products of phosphoryl trichloride and 2-methyloxirane Acute Tox. 4: H302 - Warning	10 - <20 %
CAS: 25322-69-4	Propane-1,2-diol, propoxylated Acute Tox. 4: H302 - Warning	10 - <20 %
CAS: 25791-96-2	Glycerol, propoxylated Acute Tox. 4: H302 - Warning	5 - <10 %
CAS: 75-28-5	Isobutane Flam. Gas 1A: H220; Press. Gas: H280 - Danger	5 - <10 %
CAS: 75-37-6	1,1-difluoroethane Flam. Gas 1A: H220; Press. Gas: H280 - Danger	5 - <10 %
CAS: 115-10-6	dimethyl ether Flam. Gas 1A: H220; Press. Gas: H280 - Danger	2,5 - <5 %
CAS: 74-98-6	Propane Flam. Gas 1A: H220; Press. Gas: H280 - Danger	2,5 - <5 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

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SECTION 4: FIRST-AID MEASURES (continued)

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):

Identification	Occupational exposure limits		
	Propane CAS: 74-98-6	8-hour TWA PEL	1000 ppm
	Ceiling Values - TWA PEL		

US. ACGIH Threshold Limit Values:

Identification	Occupational exposure limits		
	Isobutane CAS: 75-28-5	TLV-TWA	
TLV-STEL		1000 ppm	
dimethyl ether CAS: 115-10-6	TLV-TWA	1000 ppm	
	TLV-STEL		

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits		
	Propane CAS: 74-98-6	PEL	1000 ppm
STEL			

8.2 Appropriate engineering controls:


A.- Individual protection measures, such as personal protective equipment

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Always provide effective general and, when necessary, local exhaust ventilation to maintain the ambient workplace atmosphere below the exposure limits.. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection


Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

C.- Specific protection for the hands



Pictogram	PPE	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.



D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

Pictogram	PPE	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

National volatile organic compound emission standards (40 CFR Part 59):

- V.O.C. (Subpart C - Consumer): 13.23 % weight
- V.O.C. (Coatings) at 68 °F: 133.88 kg/m³ (133.88 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 68 °F:	Aerosol
Appearance:	Not available
Color:	Light yellow
Odor:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	11 °F (Propellant)
Vapour pressure at 68 °F:	Non-applicable *
Vapour pressure at 122 °F:	<300000 Pa (300 kPa)
Evaporation rate at 68 °F:	Non-applicable *

Product description:

Density at 68 °F:	1012 kg/m ³
Relative density at 68 °F:	Non-applicable *
Dynamic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 104 °F:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Recipient pressure:	Non-applicable *

Flammability:

Flash Point:	Non-applicable
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	860 °F (Propellant)
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 68 °F:	Non-applicable *
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*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
IARC: 4,4'-methylenediphenyl diisocyanate, isomers and homologues (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

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WINTER Gun Foam

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

E- Sensitizing effects:

- Respiratory: Prolonged exposure can result in specific respiratory hypersensitivity.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Glycerol, propoxylated CAS: 25791-96-2	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Propane-1,2-diol, propoxylated CAS: 25322-69-4	LD50 oral	1000 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	LD50 oral	632 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
Isobutane CAS: 75-28-5	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L (4 h)	
Propane CAS: 74-98-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L (4 h)	
dimethyl ether CAS: 115-10-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	308.5 mg/L (4 h)	Rat
1,1-difluoroethane CAS: 75-37-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L (4 h)	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	2024.69 mg/kg (Calculation method)	0 %
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	24.29 mg/L (4 h) (Calculation method)	0 %

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SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Acute toxicity:

Identification	Concentration		Species	Genus
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	LC50	100 mg/L (96 h)	Danio rerio	Fish
	EC50	131 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	82 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	NOEC	Non-applicable		
	NOEC	32 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	BOD5	Non-applicable	Concentration
COD		Non-applicable	Period	28 days
BOD5/COD		Non-applicable	% Biodegradable	14 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	BCF	8
	Pow Log	3.17
	Potential	Low
Isobutane CAS: 75-28-5	BCF	27
	Pow Log	2.76
	Potential	Low
Propane CAS: 74-98-6	BCF	13
	Pow Log	2.86
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Reaction products of phosphoryl trichloride and 2-methyloxirane CAS: 1244733-77-4	Koc	324.2	Henry	6E-3 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Isobutane CAS: 75-28-5	Koc	35	Henry	120576.75 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	9.84E-3 N/m (77 °F)	Moist soil	Yes
1,1-difluoroethane CAS: 75-37-6	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1.003E-2 N/m (77 °F)	Moist soil	Non-applicable
dimethyl ether CAS: 115-10-6	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1.136E-2 N/m (77 °F)	Moist soil	Non-applicable
Propane CAS: 74-98-6	Koc	460	Henry	71636.78 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7.02E-3 N/m (77 °F)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:



- 14.1 UN number:** UN1950
- 14.2 UN proper shipping name:** AEROSOLS, flammable
- 14.3 Transport hazard class(es):** 2
Labels: 2.1
- 14.4 Packing group, if applicable:** N/A
- 14.5 Marine pollutant:** No
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
Physico-Chemical properties: see section 9
- 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

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SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS, flammable
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group, if applicable: N/A
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Special regulations: 63, 959, 190, 277, 327, 344
EmS Codes: F-D, S-U
Physico-Chemical properties: see section 9
Limited quantities: 1 L
Segregation group: Non-applicable
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2021:



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS, flammable
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group, if applicable: N/A
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): 4,4'-methylenediphenyl diisocyanate, isomers and homologues
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : 4,4'-methylenediphenyl diisocyanate, isomers and homologues ; Propane-1,2-diol, propoxylated ; Glycerol, propoxylated ; Isobutane ; 1,1-difluoroethane ; dimethyl ether ; Propane
Massachusetts RTK - Substance List: 4,4'-methylenediphenyl diisocyanate, isomers and homologues ; Isobutane ; 1,1-difluoroethane ; dimethyl ether ; Propane
New Jersey Worker and Community Right-to-Know Act: 4,4'-methylenediphenyl diisocyanate, isomers and homologues ; Isobutane ; 1,1-difluoroethane ; dimethyl ether ; Propane
New York RTK - Substance list: Isobutane ; 1,1-difluoroethane ; dimethyl ether ; Propane
Pennsylvania Worker and Community Right-to-Know Law: Isobutane ; dimethyl ether ; Propane
CANADA-Domestic Substances List (DSL) : 4,4'-methylenediphenyl diisocyanate, isomers and homologues ; Propane-1,2-diol, propoxylated ; Glycerol, propoxylated ; Isobutane ; 1,1-difluoroethane ; dimethyl ether ; Propane
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Propane-1,2-diol, propoxylated ; Isobutane ; dimethyl ether ; Propane
Rhode Island - Hazardous substances RTK: dimethyl ether ; Propane
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable
Hazardous Air Pollutants (Clean Air Act): Non-applicable
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: Non-applicable
Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

- CONTINUED ON NEXT PAGE -

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317: May cause an allergic skin reaction.
H351: Suspected of causing cancer.
H335: May cause respiratory irritation.
H373: May cause damage to organs through prolonged or repeated exposure.
H280: Contains gas under pressure, may explode if heated.
H222: Extremely flammable aerosol.
H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H332 - Harmful if inhaled.
Carc. 2: H351 - Suspected of causing cancer.
Eye Irrit. 2A: H319 - Causes serious eye irritation.
Flam. Gas 1A: H220 - Extremely flammable gas.
Press. Gas: H280 - Contains gas under pressure, may explode if heated.
Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.
STOT SE 3: H335 - May cause respiratory irritation.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
IARC: International Agency for Research on Cancer

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET