

MSDS Number: 152 Revision Date: 03/20/2015 Supersedes Date: 10/31/2012

SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name: GC FREEZE MIST

SECTION 1- PRODUCT AND COMPANY IDENTIFICATION Freeze Mist **Emergency Contact: Chemtrec** Product Type: Product Name: GC FREEZE MIST Phone: (800) 424-9300 Part Number(s): 19-8410 19-8410-10 **SECTION 2: HAZARDS IDENTIFICATION OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Classification of the : GASES UNDER PRESSURE - Compressed gas substance or mixture **GHS label elements Hazard pictograms** Signal word : Warning **Hazard statements** : Contains gas under pressure; may explode if heated. **Precautionary statements** Prevention : Not applicable. Response : Not applicable. Storage : Protect from sunlight. Store in a well-ventilated place. **Disposal** : Not applicable. Hazards not otherwise : None known. classified



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SECTION 3: COMP Substance/mixture	OSITION/INFORMATION ON INGR : Mixture	EDIENTS	
Other means of identification	: Inert Dusting Gas, HFC-134a		
CAS number/other ide	entifiers		
CAS number	: Not applicable.		
Product code	: 1671, 1672, 1679 Generic		
Ingredient name		%	CAS number
1,1,1,2 Tetrafluoroetha	ne	100	811-97-2
ECTION 4: FIRST			
	ary first aid measures		
Eye contact	 Immediately flush eyes with ple eyelids. Check for and remove minutes. Get medical attention 	e any contact lenses. Cont	
Inhalation	: Remove victim to fresh air and not breathing, if breathing is irr respiration or oxygen by traine aid to give mouth-to-mouth res persist or are severe. If uncon attention immediately. Maintai tie, belt or waistband.	egular or if respiratory arre d personnel. It may be dar uscitation. Get medical att scious, place in recovery p	st occurs, provide artificial ngerous to the person providing ention if adverse health effects osition and get medical
Skin contact	 Flush contaminated skin with p shoes. Get medical attention i shoes thoroughly before reuse 	f symptoms occur. Wash o	
Ingestion	: Wash out mouth with water. R keep at rest in a position comfor the exposed person is conscio exposed person feels sick as y unless directed to do so by me kept low so that vomit does no effects persist or are severe. If	ortable for breathing. If ma us, give small quantities of romiting may be dangerous dical personnel. If vomiting t enter the lungs. Get med Never give anything by mou	terial has been swallowed and water to drink. Stop if the b. Do not induce vomiting g occurs, the head should be ical attention if adverse health th to an unconscious person.

If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.



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SECTION 4: FIRST AID M Most important symptoms/e	IEASURES (CONTINUED)
Potential acute health effect	
Eye contact	: Irritating to eyes. May cause severe eye irritation.
Inhalation	: Harmful by inhalation. At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.
Skin contact	: Contact with rapidly expanding gas may cause burns or frostbite. May cause skin irritation.
Ingestion	: No known significant effects or critical hazards.
<u>Over-exposure signs/symp</u>	<u>toms</u>
Eye contact	: Adverse symptoms may include the following: irritation redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing dizziness/vertigo drowsiness/fatigue central nervous system depression nausea or vomiting unconsciousness
Skin contact	: Adverse symptoms may include the following: frostbite pain or irritation redness dryness
Ingestion	: No specific data.
Indication of immediate med	lical attention and special treatment needed. if necessary
Notes to physician	 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)



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SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	 In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised 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).



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SECTION 6: ACCIDENTAL RELEASE MEASURES (CONTINUED)

Methods and materials for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up
	if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and
	place in an appropriate waste disposal container. Dispose of via a licensed waste
	disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	1	
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous.
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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Use appropriate containment to avoid environmental contamination.



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<u>Control parameters</u> <u>Occupational exposure lir</u>	<u>nits</u>
None.	
Appropriate engineering controls	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection meas	ures
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.
Skin protection	
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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
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	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	: Gas. [Liquefied compressed gas.]
Color	: Colorless.
Odor	: Faint odor. Ethereal.
Odor threshold	: Not available.
рН	: Not applicable.
Melting point	: -101°C (-149.8°F)
Boiling point	: -26.2°C (-15.2°F)
Flash point	: [Product does not sustain combustion.]
Evaporation rate	: >1 (CCL4 = 1)
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: 483.2 kPa (3624 mm Hg) [room temperature]
Vapor density	: 3.5 [Air = 1]
Relative density	: Not available.
Solubility	: Very slightly soluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: >750°C (>1382°F)
Decomposition temperature	: Not available.
Viscosity	: Not available.
Aerosol product	
Type of aerosol	: Spray
SECTION 10: STABILITY A Reactivity	ND REACTIVITY : No specific test data related to reactivity available for this product or its ingredients.

Possibility of hazardous : Under normal conditions of storage and use, hazardous reactions will not occur.

: The product is stable.

Conditions to avoid : No specific data.

Chemical stability

reactions



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SECTION 10: STABILITY AND REACTIVITY (CONTINUED)

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological	iects <u>Reproduct</u>	ive toxicity
Acute toxicity	Not availab	le.
Not available.	Teratogen	<u>icity</u>
Irritation/Corrosion	Not availab	le.
Not available.	Specific ta	<u>rget organ toxicity (single exposure)</u>
Sensitization	Not availat	le.
Not available.	<u>Specific ta</u>	<u>rget organ toxicity (repeated exposure)</u>
<u>Mutagenicity</u>	Not availat	le.
Not available.	Aspiration	hazard
Carcinogenicity	Not availat	le.
Not available.		
Information on the likely routes of exposure	Not available.	
Potential acute health effects		
Eye contact	Irritating to eyes. May cau	se severe eye irritation.
Inhalation	Harmful by inhalation. At cause suffocation from la	very high concentrations, can displace the normal air and ck of oxygen.
Skin contact	Contact with rapidly expansion irritation.	nding gas may cause burns or frostbite. May cause skin
Ingestion	No known significant effe	cts or critical hazards.
Eye contact	Adverse symptoms may i irritation redness	nclude the following:



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing dizziness/vertigo drowsiness/fatigue central nervous system depression nausea or vomiting unconsciousness
Skin contact	: Adverse symptoms may include the following: frostbite pain or irritation redness dryness
Ingestion	: No specific data.
Delayed and immediate effec	ts and also chronic effects from short and long term exposure
<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health effe	<u>ects</u>
Not available.	
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 toxic	ity
Acute toxicity estimates	
Not available.	



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SECTION 12. ECOLOGI	CAL INFORMATION
Not available.	
Persistence and degradabili	ty
Not available.	
Bioaccumulative potential	
Not available.	
Mobility in soil Soil/water partition coefficient (K _{oc})	: Not available.
Other adverse effects	: No known significant effects or critical hazards.
SECTION 13: DISPOSA	L CONSIDERATIONS
Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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. Do not puncture or incinerate container.

SECTION 14. TRANSPORT INFORMATION

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	ΙΑΤΑ
UN number	-	-	-	UN3159	UN3159	UN3159
UN proper shipping name	Consumer commodity ORM-D DOT-SP 15146	•••	Consumer commodity ORM-D	1,1,1,2- Tetrafluoroethane	1,1,1, 2-Tetrafluoroethane	1,1,1,2 Tetrafluoroethane



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SECTION 14. TRANSPORT INFORMATION (CONTINUED)

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	ΙΑΤΑ
Transport hazard class(es)	ORM-D	-	ORM-D	2	2.2	2.2
Packing group	-	-	-	-	-	-
Environmental hazards	No.	-	No.	No.	No.	No.
Additional information	Special provisions Must have a copy of DOT- SP 15146 with each shipment.	Packaging Not approved For export to Canada	-	Pkg. Insr. 200.; Authorization: DOT-SP 15146.; NOTE: Copy of the Exemption is required with all shipments.	Pkg. Insr. 200.; Authorization: DOT-SP 15146.; NOTE: Copy of the Exemption is required with all shipments. Limited quantity: 120mL	Passenger and Cargo Aircraft Quantity limitation: 75 kg Packaging instructions: 200 Cargo Aircraft Only Quantity limitation: 150 kg Packaging instructions: 200 Limited Quantities - Passenger Aircraft Quantity
						limitation: Forbidden Packaging instructions: 200

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.



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SECTION 14. TRANSPORT INFORMATION (CONTINUED)

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

U.S. Federal regulations	: TSCA 8(a) CDR Exempt/Partial exemption: Not determined All components are listed or exempted.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Not 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	
Composition/information	on ingredients
No products were found.	
SARA 304 RQ	: Not applicable.
SARA 311/312	
Classification	: Sudden release of pressure
Composition/information	on ingredients
No products were found.	
State regulations	
Massachusetts	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: None of the components are listed.



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SECTION 15: REGULATORY INFORMATION (CONTINUED)

International regulations

Chemical Weapon Convention List Schedules I. II & III Chemicals Not listed.

Montreal Protocol (Annexes A. B. C. E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants Not listed.

Rotterdam Convention on Prior Inform Consent (PIC) Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National Inventory	
Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.

Taiwan

: All components are listed or exempted.



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SECTION 16: OTHER INFORMATION

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing	: 11/13/2014.
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SECTION 16: OTHER INFORMATION (CONTINUED)

Version	: 2
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 = Internediate 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
References	: Not available.

✓ Indicates information that has changed from previously issued version.

Notice to reader

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