

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION AND USES

Product Name	ARTIC FREEZE (CH 700)	CI#	Not available.
Synonyms	Not available.	DSL	Not available.
Chemical Name	1,1,1,2-Tetrafluoroethane	CAS#	Not available.
Chemical Formula	CF ₃ CH ₂ F	Code	0528-10-015
Chemical Family	Hydrofluorocarbons.	Molecular Weight	Not applicable.
Supplier	DEK Canada Inc. 1928 St. Regis Blvd., Dorval, Quebec H9P 1H6 Phone: (514) 685-5800		
Material Uses	Locates thermal intermittens.		

SECTION 2: HAZARDOUS INGREDIENTS

Name	Cas#	% by Weight	LC ₅₀ /LD ₅₀
1) 1,1,1,2-Tetrafluoroethane	811-97-2	100	GAS (CL50) ppm: Acute: 50000 (Rat) (4 hour(s))

SECTION 3: PHYSICAL DATA

Physical State and Appearance	Gas (Liquefied).	Odor	Faint ethereal.
PH (1% Soln/Water)	Not available.	Taste	Not available.
Odor Threshold	Not available.	Color	Clear, colourless.
Volatility	Not available.		
Evaporation Rate	Not available.		
Melting Point	Not available.		
Boiling Point	Not available.		
Density	1.210 (Water = 1)		
Vapor Density	3.52 (Air = 1)		
Vapor Pressure	96.16 psia @ 25°C (77°F) based on data for: 1,1,1,2-Tetrafluoroethane		
LogK_{ow}	Not available.		
Ionicity (Surface Active Agent)	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Conditions of instability	Not additional remark.		
Dispersion Properties	Not available.		
Solubility	Very slightly soluble in cold water.		

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SECTION 4: FIRE AND EXPLOSION DATA

The Product is:	Non-flammable Aerosol.
Auto-ignition Temperature	Not applicable.
Products of Combustion	These products are carbon oxides (CO, CO ₂) and hydrogen fluoride.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Extinguishing Media	Cool containing vessels with water spray in order to prevent pressure build-up or explosion. Self-contained respiratory protection should be provided for firefighters.
Flammability	The flammability of an aerosol by WHMIS definition is determined by its flame-extension of this product is 0 cm. FIRE CODE: Level 1 aerosol(as per NFPA 30B).
Risks of explosion	Risks of explosion of the product in presence of mechanical impact: Do Not subject aerosol containers to impact. Risks of explosion of the product in presence of static discharge: Not available. Container may explode if heated.

SECTION 5: REACTIVITY

Stability	The product is stable.
Hazardous decomposition Products	These products are carbon oxides (CO, CO ₂) and hydrogen fluoride.
Degradability	Not available.
Products of Degradation	Not available.
Corrosivity	No specific information is available in our database regarding the corrosivity of this product in presence of various materials.
Reactivity	Avoid contact with strong oxidizing agents, strong alkalis and alkaline earth metals such as aluminium, magnesium or zinc. Keep away from open flame, extremely hot metal surfaces, heating elements and Combustion engines.
Instability Temperature	Not available.
Conditions of Instability	No additional remark.

SECTION 6: TOXICOLOGICAL PROPERTIES

Routes of Entry	Inhalation.
TLV	1,1,1,2-Tetrafluoroethane TWA: 1000 (ppm) TWA: 4240 (mg/m ³) Consult local authorities for acceptable exposure limits.
Toxicity to Animals	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute toxicity of the gas (LC50):>5000 ppm (1,1,1,2-Tetrafluoroethane).
Chronic Effects on Humans	Not available.

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Acute Effects on Humans	EYE CONTACT: May cause frostbite. SKIN CONTACT: May cause frostbite. INHALATION: Vapour of this product is heavier than air and cause suffocation by reducing oxygen available for breathing. Breathing HIGH concentrations of vapour may cause light headedness, giddiness, shortness of breath. INGESTION: May cause frostbite to the mouth. THIS PRODUCT CAN CAUSE SEVERE FROSTBITE IF IT ACCIDENTALLY COMES IN CONTACT WITH SKIN, EYES OR OTHER TISSUE.
Synergetic Products (Toxicologically)	Not available.
Irritation/Corrosivity	See acute effects on humans
Sensitization	In rare cases, 1,1,1,2-Tetrafluoroethane may sensitize heart muscle causing cardiac arrhythmia
Carcinogenic Effects	The ingredients of this product have not been listed as carcinogens by the National Toxicology Program (NTP).
Toxic Effects on Reproduction	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Not available.

SECTION 7: PREVENTIVE MEASURES

Small Spill and Leak	Not applicable.
Personal Protective Equipment	Avoid contact with skin and eyes.
Large Spill and Leak	Not applicable for aerosol containers.
Protective Clothing	Not applicable for aerosol containers.
Engineering Controls	Use with adequate ventilation.
Precautions	Contents under pressure. Container may explode if heated. Direct skin contact with spray may cause frostbite. Keep out of reach of children.
Storage	Store in a cool, well-ventilated place. Do not place in hot water or near radiators, stoves or other sources of heat. Do not puncture or incinerate container or store at temperatures over 50°C or in direct sunlight.
Handling	Deliberate inhalation of contents can be extremely dangerous. If you feel unwell, seek medical advice (show label when possible). Avoid contact with skin and eyes.
Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. Do not dispose in sewers. When container is empty, press button to release all pressure, then dispose of in garbage can.
Special Shipping Information	None.

SECTION 8: FIRST AID

Eye Contact	IMMEDIATELY flush eyes with lukewarm running water for at least 15 minutes, keeping eyelids open. Seek immediate medical advice.
Skin Contact	FLUSH IMMEDIATELY WITH WARM WATER. SEEK IMMEDIATE MEDICAL ATTENTION. Treat for frostbite if necessary.
Hazardous Skin Contact	No additional information.
Slight Inhalation	Remove affected person to fresh air. Get medical attention.
Hazardous Inhalation	No additional information.
Slight Ingestion	Contact with the mouth or any other tissue can cause severe frostbite. Get medical attention immediately.
Hazardous Ingestion	No additional information.

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SECTION 9: MSDS PREPARATION

References	Not available.
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No additional remark.

Validate by DEK Canada Inc. on February 01/12
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Emergency Phone: Please contact the Local Authorities or Poison Control Center

CLASSIFICATION

TDG Road/	CONSUMER COMMODITY.
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Permit for Equivalent Level of Safety:TC – SU 5096.

WHMIS	WHMIS CLASS A: Compressed gas.
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