MSDS Information

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Product General Product	Description:	I SECTION Chemical Emergency, Spill, Leak, Fire	
		xposure, or Accident Call CHEMTREC DAY OR NIGHT 1-800-424-9300.	
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Section 2.	COMPOSITION / INFORMAT	ION ON INGREDIENTS	
CHEMICAL		C.A.S. Number Weight %	
Dichloroflu	oroethane	1717-00-6 92-96	
Ethyl-S(-)-2	2-hydroxypropionate	97-64-3 1-2	
Carbon Diox:	ide	124-38-9 3	
OSHA HAZARDO	US COMPONENTS (29 CFR 1910.120)	0): Exposure Limits 8 Hours TWA (PPM)	
		OSHA PEL ACGIH TLV Supplier	
Dichloroflue Ethyl-S(-)-2	oroethane 50 2-hydroxypropionate NE	00	
Carbon Diox:	ide	10,000	
Section 3. HAZARD IDENTIFICATION			
Emergency Overview:			
Potential Health Effects:			
	: Major route of exposure. Vapo cause suffocation by reducing		
breathing. Breathing high concentrations of vapor may cause			
light-headedness, giddiness, shortness of breath, confusion,			
	and may lead to narcosis, cardiac irregularities,		
	unconsciousness. Inhalation of	of high concentrations in a	
	closely confined area may be	fatal.	
EYES: Liqu	id contact will irritate eyes a	and may cause conjunctivitis.	
	a corrosive or irritant; howeve cause defatting of skin.	er, repeated or prolonged exposure	
INGESTION:		_	

CHRONIC:	TOXICOLOGY INFORMATION: Ethyl-S-(-)hydroxypropiantate Mutagenicity: No positive response for several tested strains of Salmonella Typhimurium. Oral intake LD50 > 2000 mg/kg body weight FDA and FAO/WHO approval as food additive. Due to the available enzymes, product immediately degrades into lactic acid and ethanol. Skin Contact: Slight erytyema produced by percutaneous application of 2068 mg/kg/day to 2103 mg/kg/day to the dams. Inhalaiton: LC50 value > 5000 mg/m3 air. Eye contact: Possible slight temporary eye irritation.		
Section 4.	FIRST AID MEASURES		
Inhala	tion:		
Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for prompt medical attention.			
Eye Co	ntact:		
Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.			
Skin Contact: Remove contaminated clothing (including shoes) and wash before reuse. Flush with large amounts of water. Use soap if available. If irritation persists, seek medical attention.			
a	ion: o not induce vomiting unless directed by a physician. If conscious nd alert, give two glasses of water. Seek medical attention mmediately.		
======================================	FIRE FIGHTING MEASURES		
	Point & Method: NON-FLAMMABLE		
Flamma	ble Limits: LEL: 15.5 UEL: 17.4		
-	Autoignition Temperature:		
Calc	ulated Heat of Combustion 3.1 kj/g NFPA Level 1 Aerosol		
GENERAL HAZ			
Aerosol cans may erupt with force at temperatures above 120 degrees F.			
FIRE FIGHTING INSTRUCTIONS: Fire fighters should wear self contained, positive-pressure breathing			
apparatusand avoid contact with fumes which could contain hydochloric			
and hydrofluoric acid.			
FIRE FIGHTING EQUIPMENT:			
Water, foam, dry chemical, carbon dioxide. HAZARDOUS COMBUSTION PRODUCTS:			
Smoke, fumes and oxides of carbon.			

Material Safety Data Sheet

Section 6. ACCIDENTAL RELEASE MEASURES LAND SPILL: Evacuate area. Ventilate area well and avoid breathing vapors. Vapor concentration will be highest along floor and in low lying areas. Pick up liquid on suitable absorbent and store in sealed containers. Shut off fire sources. Workers should wear proper equipment to work in clean up area. WATER SPILL: Section 7. HANDLING AND STORAGE STORAGE TEMPERATURE: Ambient STORAGE PRESSURE: Atmospheric GENERAL: Keep container closed when not in use. Store in cool, well ventilated place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied. ______ EXPOSURE CONTROL / PERSONAL PROTECTION Section 8. Engineering Controls: (X) Local Exhaust ventilation acceptable. Mechanical ventilation recommended. () () Use explosion-proof ventilation equipment. (X) Do not use in confined spaces without mechanical ventilation equipment. See section 2 for component exposure guidelines. Personal Protection: **RESPIRATOR:** If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable. Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator. HAND PROTECTION: Gloves recommended (X) (X) Solvex (X) Neoprene (X) Butyl () Buna () Natural Latex () Cotton/Jersey EYE PROTECTION: (X) Safety Glasses () Chemical Goggles () Full Face Shield OTHER RECOMMENDATIONS: () Rubber Boots () Splash-proof chemical resistant suit/apron

Material Safety Data Sheet

Section 9. PHYSICAL AND CHEMICAL PROPERTIES Density..... 1.24 рН..... NA 30C / 86F % Volatile..... 100 Boiling Point..... Freezing Point..... NIF % Solids..... 0 Vapor Density (Air=1):.. 4.0 Evaporation Rate (H2O=1)... >1 Solubility in Water.... < 1 Viscosity..... N/A Molecular Weight..... N/A Physical State..... LIQUID Non-Exempt VOC (g/l).... 11 Odor..... NIF Appearance: Clear water-white mobile liquid with slight ethereal odor. Section 10. STABILITY AND REACTIVITY GENERAL: STABLE INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Contact with open flame, heat. Reactive alkali metals, strong acids & bases. HAZARDOUS DECOMPOSITION: Hydrogen chloride, phosgene, chlorine, carbon dioxide, and carbon monoxide. _______ Section 11. TOXICOLOGICAL INFORMATION RESULTS OF COMPONENT TOXICITY TEST PERFORMED: Information not available. HUMAN EXPERIENCE: Information not available. ______ Section 12. ECOLOGICAL INFORMATION FURTHER INFORMATION: Information not available. ______ Section 13. DISPOSAL CONSIDERATIONS RCRA 40 CFR 261 Classification: Federal, State, and Local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal. ______ Section 14. TRANSPORTATION INFORMATION U.S. DOT Information Proper Shipping Name: Consumer Commodity ORM-D Hazard Class: N/A Packaging Group: N/A UN Number: N/A Limitations: N/A

IATA Proper Shipping Name: Consumer Commodity Hazard Class: 9 Packing Group: N/A UN Number: ID8000 Limitations: Domestic Air shipments only. When shipping International please contact Tech Spray's shipping department. IMO Proper Shipping Name: AEROSOLS IN LIMITED QUANITIES OF CLASS 2 Class: 2 UN Number: UN1950 Packaging Group: N/A EMS:2-13 MFAG: 306 Marine Pollutant: N/A Canadian TDG: N/A IMDG Page: 2102 ______ Section 15. REGULATORY INFORMATION UNITED STATES FEDERAL REGULATIONS: MSDS complies with OSHAs Hazard Communication Rule, 29 CFR 1910.1200. CERCLA/SUPERFUND, 40 CFR 117, 302: --- None of the chemicals are Superfund hazards ---SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986 TITLE III Sections 302, 311, 312 and 313: Section 302 - Extremely hazardous substances (40 CFR 355): --- None of the chemicals are Section 302 hazards ---Section 311/312 - Material Safety Data Sheet Requirements (40 CFR 370) () By our hazard evaluation, this product is non-hazardous. (X) By our hazard evaluation, this product is hazardous. Ιt should be reported under the following EPA hazard. (X) Immediate (acute) health hazard () Delayed (chronic) chronic health hazard () Sudden release of pressure hazard () Reactive hazard () Flammable Section 313 - List of Toxic Chemicals (40 CFC 372) This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals. C.A.S. NUMBER CHEMICAL WEIGHT % Dichlorofluoroethane 1717-00-6 80-96 TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D: Refer to Section 11. for RCRA classification. FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311) This product contains the following chemicals which are listed: CHEMICAL C.A.S. NUMBER WEIGHT % CLEAN AIR ACT: --- No Information ---STATE REGULATIONS: CALIFORNIA PROPOSITION 65: This product contains the following ingredients which appear on the California proposition 65 list: CHEMICAL C.A.S. NUMBER WEIGHT % --- None of the chemicals are on the Proposition 65 list ---INTERNATIONAL REGULATIONS: CANADA WHMIS: A and D.2.B EUROPE EINECS NUMBERS: Dichlorofluoroethane; 1717-00-6 ______ Section 16. OTHER INFORMATION LABEL INFORMATION: European risk and Safety Phrases: S2, S23, S24/25, S51, R20/22 European Symbols Needed: HARMFUL Canadian WHIMS Symbols: NIF NFPA HAZARD RATING: (1) Fire (2) Health (1) Reactivity REVISION DATES, SECTIONS, REVISED BY: 27-JLY-94, CONVERTED TO ANSI STANDARD, B. RIFFEL 05-JLY-95, Added explosion data, B. Riffel 13-JLY-95, Updated Chemical and Personal Protection, B. Riffel 02-FEB-96, Updated WHMIS classification, B. Riffel 28-MAR-96, Updated Section 5, G. Garrett 02-JUN-97, MSDS REVIEWED, B. Riffel 27-MARCH-98, UPDATED SECTION 14, R. PRICHARD 26-FEB-01, MSDS Reviewed, Updated Section 2, D. Sloan ABBREVIATIONS USED IN THIS DOCUMENT: NE - Not Established, NA - Not Applicable, NIF - No Information Found **REFERENCES:** Code of Federal Regulations (CFR) The Sigma-Aldrich Library of Regulatory and Safety Data Chemical Guide and OSHA Hazard Communication Standard

Various Federal, State & Local Regulations

Material Safety Data Sheet

To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, Inc. or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.