

MATERIAL SAFETY DATA SHEET

This MSDS complies with OSHA'S Hazard Communication Standard 29 CFR 1910.1200 and OSHA Form 174

IDENTITY AND MANUFACTURER'S INFORMATION						
NFPA Rating: Health-2; Flammability-2; Reactivity-0; Special--			HMIS Rating: Health-2; Flammability-3; Reactivity-0; Personal Protection-B			
Manufactured For: Beaver Research Address: 3700 E. Kilgore Road Address: Portage, MI 49002			DOT Hazard Classification: ORM-D Identity: Cold Snap			
Phone: (269) 382-0133			MSDS Number: A00394 Revision- 1			
Emergency Response Number: NOTICE: JUDGEMENT BASED ON INDIRECT TEST DATA			Date Prepared: 10/01/06 Prepared By: IB Information Calls: (770)422-2071			
SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION						
COMPONENTS-CHEMICAL NAMES AND COMMON NAMES (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)		CAS Number	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	Carcinogen Ref. Source **
1,1 DIFLUOROETHANE		75-37-6	No	NE	NE	d
DIMETHYLPOLYSILOXANES		63148-62-9	No	NE	NE	d
METHYL ISOBUTYL KETONE		108-10-1	Yes	100	50	d
OLEIC ACID		68187-99-5	No	NE	NE	d
SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS						
Boiling Point: (concentrate only) = Not Determined			Specific Gravity (H2O=1): Concentrate Only = 0.91			
Vapor Pressure: PSIG @ 70°F (Aerosols): less than 90			Vapor Pressure (Non-Aerosols)(mm Hg and Temperature): N/A			
Vapor Density (Air = 1): Concentrate only = greater than 1			Evaporation Rate (BuAc = 1): Not determined			
Solubility in Water: Negligible			Water Reactive: No			
Appearance and Odor: Clear, colorless spray with faint solvent odor.						
SECTION 3 - FIRE AND EXPLOSION HAZARD DATA						
FLAMMABILITY as per USA FLAME PROJECTION TEST (aerosols): 26 inches/no flashback: Categorized as FLAMMABLE.		Auto Ignition Temp: N/E	Flammability Limits in Air by % in Volume: Not determined for mixture: % LEL: NE % UEL: NE			
FLASH POINT AND METHOD USED (non-aerosols): Not applicable				EXTINGUISHER MEDIA: Foam, dry chemical, carbon dioxide.		
SPECIAL FIRE FIGHTING PROCEDURES: Cool containers with water. Wear Self-contained breathing apparatus.						
Unusual Fire & Explosion Hazards: Do not expose aerosols to temperatures above 130°F or the container may rupture.						
SECTION 4 - REACTIVITY HAZARD DATA						
STABILITY <input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE		HAZARDOUS POLYMERIZATION <input type="checkbox"/> WILL <input checked="" type="checkbox"/> WILL NOT OCCUR				
Incompatibility (Mat. to avoid): Alkali or alkaline earth metals (powdered Al, Zn, Be) and strong oxidizing agents.		Conditions to Avoid: Open flame, welding arcs, heat, sparks, or any source of ignition.				
Hazardous Decomposition Products: CO, CO2, hydrofluoric acid and possibly carbonyl fluoride.						
SECTION 5 - HEALTH HAZARD DATA						
PRIMARY ROUTES OF ENTRY: <input checked="" type="checkbox"/> INHALATION <input type="checkbox"/> INGESTION <input checked="" type="checkbox"/> SKIN ABSORPTION <input type="checkbox"/> EYE <input type="checkbox"/> NOT HAZARDOUS						
ACUTE EFFECTS:						
Inhalation: Product is an asphyxiant at very high concentrations. Excessive inhalation of vapors can be harmful and may cause headache, disorientation, rapid respiration, nausea, anesthetic effects, temporary CNS depression, and possible unconsciousness. Vapors are heavier than air and displace oxygen required for breathing. Higher exposures may lead to shortness of breath, temporary alteration of cardiac electrical activity with irregular pulse, palpitations or inadequate circulation.						
Eye Contact: Irritant. May cause burning sensation.			Skin Contact: May cause burns and frostbite.			
Ingestion: Possible chemical pneumonitis if aspirated into lungs.						
CHRONIC EFFECTS: Unknown.						
Medical Conditions Generally Aggravated by Exposure: May aggravate existing eye, skin, CNS, kidney, or upper respiratory conditions.						
EMERGENCY FIRST AID PROCEDURES						
Eye Contact: Flush immediately with fresh water for at least 15 minutes while holding eyelids open. Remove contact lenses if worn. Seek medical attention immediately.						
Skin Contact: Treat burned or frostbitten skin by flushing or immersing affected areas in lukewarm water. If skin is not burned, keep warm and stimulate circulation with massage. Seek medical attention immediately.						
Inhalation: Remove to fresh air. Resuscitate if necessary. Get medical attention. Give oxygen.						
Ingestion: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.						
SECTION 6 - CONTROL AND PROTECTIVE MEASURES						
Respiratory Protection (specify type): If vapor concentration exceeds TLV, use respirator approved by NIOSH for organic vapors to be used in a positive pressure mode.						
Protective Gloves: Rubber gloves recommended.			Eye Protection: Safety glasses recommended.			
Ventilation Requirements: Adequate ventilation to keep vapor concentration below TLV and prevent accumulation of excessive vapors could present flammable conditions.						
Other Protective Clothing & Equipment: Self-contained respirator should be available for non-routine and emergency situations.						
Hygienic Work Practices: Wash with soap and water before handling food. Remove contaminated clothing.						
SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE						
Steps To Be Taken If Material Is Spilled Or Released: Remove all ignition sources. Ventilate area to disperse vapors.						
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use pose no disposal hazard.						
Precautions To Be Taken In Handling & Storage: Do not puncture or incinerate containers. Do not store at temperatures above 130°F.						
Other Precautions &/or Special Hazards: KEEP OUT OF REACH OF CHILDREN. Avoid food contamination. Avoid breathing vapors. Avoid contact with skin or eyes.						

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind.

** Chemical Listed as Carcinogen or Potential Carcinogen. [a] NTP [b] IARC Monograph [c] OSHA [d] Not Listed [e] Animal Data Only