

MATERIAL SAFETY DATA SHEET

IDENTIFICATION & USE	TYPE OF PRODUCT D.O. Sensor Cleaning Solution		CHEMICAL FAMILY Inorganic Acid									
	PRODUCT NUMBER A1100194		FORMULA HF₃									
	MANUFACTURER'S NAME AND ADDRESS IC CONTROLS		PRODUCT USE									
	29 Centennial Rd.		EMERGENCY TELEPHONE NO. IC CONTROLS: (519)941-8161									
	Orangeville, Ont. L9W 1R1		Poison Info Centre: 1 800 268-9017									
	CONTAINER SIZE AND TYPE 30 mL bottle		USE AS RECEIVED		Y							
HAZARDOUS INGREDIENTS	SHIPPING NAME not regulated		CLASS									
	PIN		WHMIS Classification E: corrosive		PACKING GROUP							
	CONCENTRATION*	HAZARDOUS	INGREDIENTS	CHEMICAL NAMES	LD ₅₀ mg/kg	LC ₅₀ **	CAS REGISTRY NO.					
	1 4-5		Fluoboric acid		N.Av.	N.Av.	16872-11-0					
PHYSICAL DATA	FREEZING POINT		N. Av. °C		MELTING POINT		N. Appl. °C		BOILING POINT		130 °C	
	VAPOUR PRESSURE		5-10 mm Hg		VAPOUR DENSITY (AIR = 1)		3.0		SPECIFIC GRAVITY (H ₂ O = 1)		1.37	
	COEFFICIENT OF WATER/OIL DISTRIBUTION		No Data		EVAPORATION RATE		No Data		pH AT 25 °C		1.0	
	ODOUR THRESHOLD		No Data		PHYSICAL STATE		GAS LIQUID PASTE SOLID POWDER		X			
	ODOUR AND APPEARANCE Slight pungent odor; clear, colorless liquid											
	FLASH POINT AND METHOD OF DETERMINATION Not applicable											
FIRE & EXPLOSION DATA	FLAMMABLE LIMITS						L.E.L.		N. A.		U.E.L.	
	CONDITIONS OF FLAMMABILITY Moderate by chemical reaction with reducing agents.											
	MEANS OF EXTINCTION water, carbon dioxide, dry chemical, foam, halon. As appropriate for surrounding material.											
	HAZARDOUS COMBUSTION PRODUCTS											
	AUTO IGNITION TEMP.						°C					
	EXPLOSION DATA		SENSITIVITY TO MECHANICAL IMPACT No Data				SENSITIVITY TO STATIC DISCHARGE No Data					
	SPECIAL FIRE FIGHTING PROCEDURES Don't allow runoff to enter sewers or waterways.											

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REACTIVITY	STABLE	YES	CONDITIONS TO AVOID		PRODUCT NUMBER	
	UNSTABLE				A1100194	
	INCOMPATIBILITY—MATERIALS TO AVOID Cyanides, strong alkaline materials.					
	HAZARDOUS DECOMPOSITION PRODUCTS BF₃, HF					
CONDITIONS OF REACTIVITY						
HEALTH HAZARD DATA	HAZARDOUS ROUTES OF ENTRY	INHALATION	INGESTION	EYE CONTACT	SKIN CONTACT	SKIN ABSORPTION
		YES	YES	YES	YES	
	EFFECTS OF EXPOSURE, (ACUTE) Inhalation: irritation of respiratory tract. Eyes, skin, mucous membranes: may cause burns.					
	EFFECTS OF EXPOSURE (CHRONIC) No data					
	EXPOSURE LIMITS Fluoboric acid: ACGIH TLV/TWA = 2.5 mg(F)/m ³					
	SENSITIZATION TO PRODUCT					
	CARCINOGENICITY					
	OTHER TOXICOLOGICAL EFFECTS					
	EMERGENCY AND FIRST AID PROCEDURES Eyes: immediately flush eyes with a stream of running water for a minimum of 20 minutes. contact physician immediately. Skin: wash skin thoroughly with soap and water. Inhalation: remove person to fresh air. Ingestion: do not induce vomiting. Drink water. Contact physician.					
	RESPIRATORY PROTECTION					
PREVENTIVE MEASURES	VENTILATION	LOCAL EXHAUST use general adequate ventilation		SPECIAL		
		MECHANICAL (GENERAL)		OTHER		
	HAND PROTECTION impervious gloves		EYE PROTECTION splash-proof chemical goggles			
	PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL Flush spilled material to drain with water.					
	WASTE DISPOSAL METHOD Dispose of in accordance with local, provincial, or federal regulations as required. Neutralize with lime.					
	HANDLING PROCEDURES AND EQUIPMENT Avoid contact with skin, eyes, and clothing. Wash hands after handling.					
STORAGE REQUIREMENTS						
SPECIAL SHIPPING INFORMATION						
PREPARATION	PREPARED BY Peter Bakker		APPROVED BY Peter Bakker			
	TITLE Chemistry Manager		TITLE Peter Bakker		TELEPHONE (519) 941-8161	
			DATE November 5, 2009			
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