

MATERIAL SAFETY DATA SHEET

IDENTIFICATION & USE	TYPE OF PRODUCT 0-50 ppm Alkalinity Reagent		CHEMICAL FAMILY organic acid solution			
	PRODUCT NUMBER Orion 172130		FORMULA			
	MANUFACTURER'S NAME AND ADDRESS Thermo Fisher		PRODUCT USE Analyzer reagent			
	166 Cummings Center		EMERGENCY TELEPHONE NO. 1-800-424-9300			
	Beverly, MA 01915					
	CONTAINER SIZE AND TYPE		USE AS RECEIVED		YES	
HAZARDOUS INGREDIENTS	SHIPPING NAME		CLASS			
	PIN	WHMIS Classification Not controlled—inherently non-hazardous		PACKING GROUP		
	CONCENTRATION*	HAZARDOUS INGREDIENTS	CHEMICAL NAMES	LD ₅₀ mg/kg	LC ₅₀ **	CAS REGISTRY NO.
	1 < 1	succinic acid		LO SCU-frg		110-15-6
				2 g/kg		
	1 < 1	chloroacetic acid		orl-rat		79-11-8
			76 mg/kg			
	Solution is sufficiently dilute so as not to be considered a health hazard.					
	This product is not controlled by WHMIS regulations.					
* (1) % W/W (2) % V/V (3) % g/L			** SPECIES AND ROUTE			
PHYSICAL DATA	FREEZING POINT	< 0 °C	MELTING POINT	NA °C	BOILING POINT	> 100 °C
	VAPOUR PRESSURE	NA	VAPOUR DENSITY (AIR = 1)	NA	SPECIFIC GRAVITY (H ₂ O = 1)	1
	COEFFICIENT OF WATER/OIL DISTRIBUTION	No Data	EVAPORATION RATE	NA	pH AT 25 °C	4
	ODOUR THRESHOLD	No Data	PHYSICAL STATE	GAS LIQUID PASTE SOLID POWDER X		
	ODOUR AND APPEARANCE Colorless liquid, slight vinegar-like odor.					
FIRE & EXPLOSION DATA	FLASH POINT AND METHOD OF DETERMINATION NA		FLAMMABLE LIMITS		L.E.L.	U.E.L.
	CONDITIONS OF FLAMMABILITY none					
	MEANS OF EXTINCTION any					
	HAZARDOUS COMBUSTION PRODUCTS none					
					AUTO IGNITION TEMP.	°C
	EXPLOSION DATA	SENSITIVITY TO MECHANICAL IMPACT NA				
		SENSITIVITY TO STATIC DISCHARGE NA				
	SPECIAL FIRE FIGHTING PROCEDURES					

MATERIAL SAFETY DATA SHEET

REACTIVITY	STABLE	YES	CONDITIONS TO AVOID none		PRODUCT NUMBER Orion 72130	
	UNSTABLE					
	INCOMPATIBILITY—MATERIALS TO AVOID Low concentrations—no hazard.					
	HAZARDOUS DECOMPOSITION PRODUCTS					
CONDITIONS OF REACTIVITY						
HEALTH HAZARD DATA	HAZARDOUS ROUTES OF ENTRY	INHALATION	INGESTION YES	EYE CONTACT YES	SKIN CONTACT	SKIN ABSORPTION
	EFFECTS OF EXPOSURE (ACUTE) May be an irritant if allowed to dry on the skin. Could cause upset stomach if ingested.					
	This product poses a very low health risk.					
	EFFECTS OF EXPOSURE (CHRONIC) No known chronic effects.					
	EXPOSURE LIMITS					
	SENSITIZATION TO PRODUCT Skin irritation.					
	CARCINOGENICITY					
	OTHER TOXICOLOGICAL EFFECTS none.					
	EMERGENCY AND FIRST AID PROCEDURES Skin, eyes: wash thoroughly with water.					
	Ingestion: drink large amounts of water.					
PREVENTIVE MEASURES	RESPIRATORY PROTECTION					
	VENTILATION	LOCAL EXHAUST		SPECIAL		
		MECHANICAL (GENERAL)		OTHER		
	HAND PROTECTION			EYE PROTECTION		
	PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL Wash to drain with excess water.					
	WASTE DISPOSAL METHOD Neutralize and discharge to sewage. Observe federal, state, and local regulations.					
	HANDLING PROCEDURES AND EQUIPMENT					
	STORAGE REQUIREMENTS					
	SPECIAL SHIPPING INFORMATION					
	PREPARATION	PREPARED BY Peter Bakker		APPROVED BY Peter Bakker		
TITLE Chemistry Manager		TITLE <i>Peter Bakker</i>		TELEPHONE (519) 941-8161		
				DATE November 5, 2009		
<p><i>The information provided in this Material Safety Data Sheet is compiled from data currently available to us. Safe use of the materials and adoption of safety precautions are the responsibility of the user. IC CONTROLS makes no representation or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, IC CONTROLS will not be responsible for damages, including consequential damages, resulting from the use of or reliance upon this information.</i></p>						