

REC'D JUL 28 1997

MATERIAL SAFETY DATA SHEET

2360
MSDS #N105

SECTION 1 — PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER ▶ SERVICE FIRST MICROBIOCIDE		PRODUCT IDENTIFICATION NUMBER (PIN) CHM00027	
PRODUCT USE ▶ Broad spectrum microbiocide for cooling water systems			
MANUFACTURER'S NAME North American Research Corporation		SUPPLIER'S NAME The Trane Company	
STREET ADDRESS 519 Huffines Blvd.		STREET ADDRESS 3600 Pammel Creek Road	
CITY Lewisville	PROVINCE Texas USA	CITY La Crosse	PROVINCE Wisconsin USA
POSTAL CODE 75056	EMERGENCY TELEPHONE NO. (972) 492-1800	POSTAL CODE 54601	EMERGENCY TELEPHONE NO. 800-424-9300

SECTION 2 — HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD ₅₀ OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC ₅₀ OF INGREDIENT (SPECIFY SPECIES)
Poly[oxyethylene(dimethyliminio) ethylene-(dimethyliminio) ethylene dichloride]	5 - 10	31075-24-8	Acute oral: rats, male; 3690 mg/kg;	0.43ppm 96hr Rainbow trout
			rats, female	
NFPA HAZARD RATING:			1850 mg/kg	
"1" Health			Dermal: rabbits	
"0" Flammable			>2000mg/kg slight	
"0" Reactivity			skin irritation	

SECTION 3 — PHYSICAL DATA

PHYSICAL STATE Liquid	ODOUR AND APPEARANCE Clear to pale straw liquid; Bland odor			ODOUR THRESHOLD (ppm) Not determined
VAPOUR PRESSURE (mm Hg) N/A	VAPOUR DENSITY (AIR=1) N/A	EVAPORATION RATE N/A	BOILING POINT(°C) Above 100°	FREEZING POINT(°C) Below 0°C
pH 6 - 7	SPECIFIC GRAVITY 1.023	COEFF. WATER/OIL DIST. N/A		

SECTION 4 — FIRE AND EXPLOSION DATA

FLAMMABILITY YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF YES, UNDER WHICH CONDITIONS? ▶		
MEANS OF EXTINCTION Use proper extinguishing media for surrounding fire. Spray containers with a water fog to keep containers cool.		
FLASHPOINT (°C) AND METHOD None (TCC and TOC)	UPPER FLAMMABLE LIMIT (% BY VOLUME) N/A	LOWER FLAMMABLE LIMIT (% BY VOLUME) N/A
AUTOIGNITION TEMPERATURE (°C) N/A	HAZARDOUS COMBUSTION PRODUCTS None Known	
EXPLOSION DATA ▶	SENSITIVITY TO IMPACT None	SENSITIVITY TO STATIC DISCHARGE None

SECTION 5 — REACTIVITY DATA

CHEMICAL STABILITY YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> IF NO, UNDER WHICH CONDITIONS? ▶
INCOMPATIBILITY WITH OTHER SUBSTANCES YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF SO, WHICH ONES? ▶
REACTIVITY, AND UNDER WHAT CONDITIONS None
HAZARDOUS DECOMPOSITION PRODUCTS None

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PRODUCT IDENTIFIER SERVICE FIRST MICROBIOCIDE

SECTION 6 — TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY

SKIN CONTACT SKIN ABSORPTION EYE CONTACT INHALATION INGESTION EFFECTS OF ACUTE EXPOSURE TO PRODUCT
INHALATION: irritation to mucous membranes and lungs.EFFECTS OF CHRONIC EXPOSURE TO PRODUCT
All test proved negative.

EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
Not determined. No deaths after 1hr of exposure at 26.4 mg/L	None through the skin at doses of 2 or 20 mg.	No evidence based 2% solution on guinea pigs and humans	Not a carcinogenic
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
N/A	Rats - none @ 6000ppm	Negative @ doses up to 1500 mg/kg	Chlorine will reduce the concentration to achieve an effective kill

SECTION 7 — PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES (SPECIFY) Rubber	RESPIRATOR (SPECIFY) none required	EYE (SPECIFY) chemical safety goggles
FOOTWEAR (SPECIFY) usual	CLOTHING (SPECIFY) normal work clothes	OTHER (SPECIFY) N/A

ENGINEERING CONTROLS (SPECIFY, EG. VENTILATION, ENCLOSED PROCESS.)
Local exhaust should be sufficient for ventilation. Mechanical exhaust should be used in an enclosed area. Always use this product in a well ventilated area.LEAK AND SPILL PROCEDURE Contain all spills or leaks to prevent discharge into the environment.
This product is an EPA registeredWASTE DISPOSAL
This product is not considered hazardous, however abide by all regulations.

HANDLING PROCEDURES AND EQUIPMENT Always wear chemical goggles and rubber gloves when handling product. Read entire label and MSDS before using.

STORAGE REQUIREMENTS
Store containers in a dry, cool area away from direct sunlight. Keep out of reach of childrenSPECIAL SHIPPING INFORMATION
Compound Cleaning Liquid NOS (non-hazardous)

SECTION 8 — FIRST AID MEASURES

SPECIFIC MEASURES

SKIN: wash exposed area with plenty of soap & water. Remove contaminated clothing and wash thoroughly before reuse.

EYES: flush with copious amount of tap water or normal saline for 15 minutes. See physician.

INHALATION: remove to fresh air. If breathing is difficult, administer oxygen. Consult a physician.

INGESTION: drink promptly a large quantity of milk, egg whites, gelatin solution or a large quantity of water. Avoid alcohol. Do not give fluids to an unconscious person.

SECTION 9 — PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, ETC.)

PHONE NUMBER

DATE

George A. Keller

(972) 492-1800

7/8/97