
MATERIAL SAFETY DATA SHEET

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Revised 10/27/00
Replaces 7/10/00
Printed 3/02/01**ICE MACHINE CLEANER M.E.W.**MSDS ID: MI0895

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : ICE MACHINE CLEANER M.E.W.
MSDS ID : MI0895
CHEMICAL NAME SYNONYMS : O-99725
CAS NUMBER : MIXTURE
CHEMICAL FAMILY : Acid Detergent
FORMULA : Proprietary Information

DISTRIBUTED BY:
Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency # - (414) 277-1311
CHEMTREC Emergency # - (800) 424-9300

MANUFACTURED BY: HYDRITE CHEMICAL CO.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	OSHA HAZARD	% BY WT.
Water	7732-18-5	NO	60 - 70 %
Phosphoric Acid	7664-38-2	YES	30 - 40 %
Citric Acid	77-92-9	YES	0 - 5 %
Oxirane, Methyl-, Polymer	9003-11-6	YES	0 - 2 %

3. HAZARDS IDENTIFICATION

PHYSICAL STATE: Liquid.
COLOR : Clear. Green.
ODOR : No odor.

EMERGENCY OVERVIEW: DANGER! CORROSIVE. Causes severe burns to eyes, skin, and respiratory tract. Harmful or fatal if swallowed. Harmful if inhaled. Reacts with most metals to form explosive/flammable hydrogen gas.

POTENTIAL HEALTH EFFECTS**ROUTES OF EXPOSURE:**

Eyes. Skin. Ingestion. Inhalation.

TARGET ORGANS:

Eyes. Skin. Respiratory System.

EYE CONTACT:

CORROSIVE-Causes severe irritation and burns.
May cause: redness. tearing. burns. Permanent eye damage may result from contact with this product. Small amounts may cause: tissue destruction. blindness.

SKIN CONTACT:

CORROSIVE-Causes severe irritation and burns.
Contact may not produce an immediate burning sensation, delaying awareness

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3. HAZARDS IDENTIFICATION (Cont.)

that contact has occurred. Death may result from burns which extend over large portions of the body.

SKIN ABSORPTION:

No absorption hazard expected under normal use.

INHALATION:

CORROSIVE-Causes severe irritation and burns.

May irritate: mucous membranes. nose. throat. May cause: coughing. difficulty breathing. allergic reaction. Dusts or mists may damage: upper respiratory tract. Vapors or mists may irritate: respiratory tract.

INGESTION:

CORROSIVE-Causes severe irritation and burns.

May cause: nausea. vomiting. diarrhea. abdominal discomfort. loss of appetite. constipation. increase blood calcium levels. seizures. weakness. May irritate or burn: mouth. throat. Erosion of teeth is possible. Large amounts may cause: death. May cause damage to the: esophagus. stomach.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO PRODUCT:

Eye disorders. Skin disorders. Kidney disorders. Hypercalcemia. Blood disorders. Dehydration. Hormonal problems. Respiratory system disorders.

OTHER:

None known.

CANCER INFORMATION:

This product does not contain greater than 0.1% of the known or potential carcinogens listed in NTP, IARC, or OSHA.

POTENTIAL ENVIRONMENTAL EFFECTS:

See Section 12.

4. FIRST AID MEASURES

EYE CONTACT:

Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Do not apply oils or ointments unless ordered by the physician.

INHALATION:

Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET

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4. FIRST AID MEASURES (Cont.)

MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

NOTE TO PHYSICIANS: The use of gastric lavage is controversial. The advantage of removal of acid must be weighted against the risk of perforation or bleeding. If a large amount of acid (> 1 ml/kg body weight) has been recently ingested, cautious gastric lavage is generally advised if the patient is alert and there is little risk of convulsions. Consultation with a gastroenterologist and/or surgeon is advised. Serious complications such as perforation or stricture of the esophagus may occur requiring care by specialists. Laryngeal edema may develop requiring intubation or tracheostomy.

5. FIRE FIGHTING MEASURES

FLASH POINT: N.A.

FLAMMABILITY LIMITS: LEL: N.A.

UEL: N.A.

AUTOIGNITION TEMPERATURE: No Data

EXTINGUISHING MEDIA:

For fires in area use appropriate media. For example: Water spray. Dry chemical. Carbon dioxide. Alcohol foam. Water fog.

FIRE FIGHTING METHODS:

Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers.

Product generates heat upon addition of water, with possible spattering. Run-off from fire control may cause pollution.

FIRE AND EXPLOSION HAZARDS:

This product may react with certain metals to produce flammable Hydrogen Gas.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon dioxide. Carbon monoxide. Phosphorous oxides.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEAN-UP PROCEDURES:

CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Contain spill, place into drums for proper disposal. Flush remaining area

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6. ACCIDENTAL RELEASE MEASURES (Cont.)

with water and neutralize with Soda Ash or Lime and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

STORAGE:

CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers.
Do not freeze.

HANDLING:

Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCE OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Local exhaust ventilation, process enclosures, or other engineering controls are imperative when handling or using this product to avoid overexposure. Avoid creating dust or mist. Maintain adequate ventilation.

RESPIRATORY PROTECTION:

Respiratory protection must be worn when handling this product. If exposure limits are exceeded, wear: NIOSH-Approved respirator with: Acid gas cartridge. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

EYE/FACE PROTECTION:

Wear chemical safety goggles and a full face shield while handling this product.
Do not wear contact lenses.

SKIN PROTECTION:

Prevent contact with this product. Wear gloves and protective clothing depending on condition of use.
Protective gloves: Acid-proof. Gauntlet-type. Rubber (latex). Neoprene.

OTHER PROTECTIVE EQUIPMENT:

Eye-wash station. Safety shower. Rubber apron. Protective clothing.
Chemical safety shoes. Rubber boots.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)

GENERAL HYGIENE CONSIDERATIONS:

Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

EXPOSURE GUIDELINES:

COMPONENT	PEL	STEL/C	TWA	STEL/C
Water	Not Estab.	Not Estab.	Not Estab.	Not Estab.
Phosphoric Acid	1 mg/m3	Not Estab.	1 mg/m3	3 mg/m3
	1 mg/m3+	3 mg/m3+		
Citric Acid	Not Estab.	Not Estab.	Not Estab.	Not Estab.
Oxirane, Methyl-, Polymer	Not Estab.	Not Estab.	Not Estab.	Not Estab.

NOTE: + Vacated 1989 OSHA PEL(s).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (DEG. F) : N.D.	SPECIFIC GRAVITY: 1.22-1.24 @25C
FREEZING POINT (DEG. F): N.D.	% VOLATILE (WT%): N.D.
MELTING POINT (DEG. F) : N.D.	EVAPORATION RATE: N.D.
VAPOR PRESSURE (MM HG) : N.D.	(nBuAc=1)
VAPOR DENSITY (AIR=1) : N.D.	VOC (WT%) : N.A.
SOLUBILITY IN WATER : Complete	VOC (LBS/GAL) : N.A.
pH : < 2 (as is)	

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions.

CONDITIONS TO AVOID:

Avoid elevated temperatures. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product.

INCOMPATIBILITY:

Alkalies. Strong oxidizing agents. Bases. Sulfides. Carbonates. Acetates. Potassium Tartrate. Metal Nitrates. Reducing agents. Bicarbonates. Amines. Alkali metals. Copper, aluminum, zinc and their alloys. Lead. Oxides of sulfur. Fiber-reinforced Polyester. Steel. Brass. Cast Iron. Reactive Metals. Metals. Strong reducing agents. Sulfites. Strong bases. Fluorine. Sulfur trioxide. Phosphorous pentoxide.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide. Carbon monoxide. Toxic vapors. Phosphorous oxides. May react with certain metals to produce flammable hydrogen gas. Mixing with strong bases can cause high heat of reaction and generate steam.

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10. STABILITY AND REACTIVITY (Cont.)

HAZARDOUS POLYMERIZATION:

Will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

LD50 ORAL : No Data

LD50 SKIN : No Data

LC50 INHALATION: No Data

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

No data available.

CHEMICAL FATE INFORMATION:

No data available.

13. DISPOSAL CONSIDERATIONS

HAZARDOUS WASTE NUMBER: D002

DISPOSAL METHOD:

Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations.

DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

14. TRANSPORT INFORMATION (Not meant to be all inclusive)

DOT (Department of Transportation):

Proper Shipping Name : Corrosive Liquid, N.O.S. (Contains Phosphoric Acid, Citric Acid)

Hazard Class : 8

Identification Number : UN1760

Packing Group : III

Label Required : CORROSIVE

Reportable Quantity (RQ): 5000# (Phosphoric Acid)

15. REGULATORY INFORMATION

FEDERAL REGULATIONS:

TSCA INVENTORY STATUS:

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA TITLE III SECTION 311/312 CATEGORY:

IMMEDIATE (ACUTE) HEALTH HAZARD : YES

DELAYED (CHRONIC) HEALTH HAZARD : YES

FIRE HAZARD : NO

SUDDEN RELEASE OF PRESSURE HAZARD: NO

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15. REGULATORY INFORMATION (Cont.)

REACTIVE HAZARD

: NO

SARA SECTION 302/304/313/HAP:

COMPONENT	RQ (LBS) (*1)	RQ (LBS) (*2)	TPQ (LBS) (*3)	SEC 313 (*4)	HAP (*5)
Water	N.A.	N.A.	N.A.	NO	NO
Phosphoric Acid	5000	N.A.	N.A.	NO	NO
Citric Acid	N.A.	N.A.	N.A.	NO	NO
Oxirane, Methyl-, Polymer	N.A.	N.A.	N.A.	NO	NO

FOOTNOTES

- *1 = CERCLA Reportable Quantity *3 = SARA EHS Threshold Planning Quantity
*2 = SARA Reportable Quantity *4 = SARA 313 Toxic Chemical/Category
*5 = U.S. EPA Hazardous Air Pollutant

STATE REGULATIONS:

CALIFORNIA--The following components are listed under Prop 65:

Ethylene Oxide (Trace Amounts)
Propylene Oxide (Trace Amounts)
1,4-Dioxane (Trace Amounts)

WISCONSIN--The following components are listed as a Wisconsin HAP:

Phosphoric acid.

16. OTHER INFORMATION

HMIS RATING SYSTEM

Health : 3*
Flammability: 0
Reactivity : 1
* = Chronic Health Hazard

NFPA RATING SYSTEM

Health : 3
Flammability : 0
Reactivity : 0
Special Hazard: None

MSDS ABBREVIATIONS: N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS PREPARED BY: JAK/NAO

REASON FOR REVISION: Change(s) made in Section 8 and 15.

The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be

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16. OTHER INFORMATION (Cont.)

taken as a warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

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