

Manitowoc  
2110 S 26th St., Manitowoc, WI 54220  
**Emergency Phone Number:** (800) 545-5720

**DATE PREPARED:** 04/10/2013  
**REVISION DATE:** 04/10/2013  
**CHEM-TEL:** 800-225-3924  
**PRODUCT NUMBER:** 100735

## SECTION I - IDENTIFICATION

**PRODUCT NAME:** Manitowoc Ice Machine Cleaner  
**PRODUCT CODE:** 100735  
**PRODUCT USE:** Cleaner

## SECTION II – COMPOSITION/HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	OSHA PEL	ACGIH TLV
Phosphoric Acid	7664-38-2	1 mg/m3	1 mg/m3
Hydroxyacetic Acid (Glycolic Acid)	79-14-1	3 mg/m3	3 mg/m3

## SECTION III – HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** DANGER! Corrosive to all body tissues. Causes destruction of eye and skin tissue. Harmful if inhaled or swallowed.

**ROUTES OF ENTRY:** Eyes, Ingestion, Inhalation, Skin

**EYES:** Causes immediate irritation and burning followed by destruction of eye tissue.

**INGESTION:** Corrosive to gastrointestinal tract. May cause gastrointestinal irritation, nausea, vomiting, loss of consciousness.

**INHALATION:** Corrosive to respiratory passages. May cause coughing, wheezing, laryngitis, shortness of breath, headache, or nausea.

**SKIN:** Immediate inflation and burning followed by destruction of skin tissue. Moderately toxic when absorbed through skin.

**MEDICAL CONDITION AGGRAVATED:** Aggravates pre-existing skin conditions.

**CHRONIC HEALTH HAZARDS:** Kidney and liver damage possible.

**CARCINOGENICITY:**

OSHA: No ACGIH: No NTP: No IARC: No OTHER: N/A

## SECTION IV - FIRST AID MEASURES

**EYES:** Immediately flush with water for 15 minutes while holding eyelids open. Seek medical attention if irritation persists.

**INGESTION:** Do not induce vomiting. Rinse mouth out with water. Seek immediate medical attention. If needed, immediately begin artificial respiration.

**INHALATION:** Move to fresh air. Give oxygen if breathing is labored. Contact a physician immediately.

**SKIN:** Immediately wash with soap and water for 15 minutes. Seek immediate medical attention.

**NOTE TO PHYSICIAN:**

## SECTION V – FIRE-FIGHTING MEASURES

**FLASH POINT:** Not Tested

**FLAMMABLE LIMITS IN AIR, (% BY VOLUME) UPPER:** N/A **LOWER:** N/A

**EXTINGUISHING MEDIA:** Dry chemical, carbon dioxide, and foam.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear SCBA in fire situations.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon and phosphorus.

## SECTION VI – ACCIDENTAL RELEASE MEASURES

**SPILL:** Contain the spill with the use of dikes. Neutralize the spill in place with an alkaline material. Absorb spill with non-combustible material such as vermiculite, sand or earth.

**WASTE DISPOSAL:** Dispose of in accordance with local, state and federal regulations. Offer drums for recycling. Pails and smaller containers should be rinsed, resealed, and disposed of properly.

**RCRA STATUS:** Waste likely considered Hazardous Waste D002 (Corrosive waste) due to the pH of the solution and the corrosive characteristic.

## SECTION VII – HANDLING AND STORAGE

**HANDLING AND STORAGE:** Always add acid to water, not water to acid. Avoid contact with skin, eyes and clothing. Wear appropriate protective equipment. Wash thoroughly after handling. As with all chemicals, use good industrial hygiene practices. Store in cool, dry, ventilated area.

**OTHER PRECAUTIONS:** Store away from caustic / alkaline materials.

## SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS / VENTILATION:** Local ventilation/exhaust recommended.

**RESPIRATORY PROTECTION:** Wear NIOSH approved respirator.

**PROTECTIVE CLOTHING:** Chemical resistant rubber, acid resistant gloves. Goggles or full face shield Acid resistant boots and apron.

**ADDITIONAL MEASURES:** Wash hands thoroughly with soap and water after use.

## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Colorless Liquid

**ODOR:** Odorless

**PHYSICAL STATE:** Liquid

**BOILING POINT:** 130°C

**FREEZING POINT:** Not Tested

**VAPOR PRESSURE (mm Hg):** Same as water.

**VAPOR DENSITY (AIR=1):** 1

**EVAPORATION RATE:** >1

**SPECIFIC GRAVITY (H2O=1):** 1.2

**pH:** 1-2

**SOLIDS (%):** Not tested

**SOLUBILITY IN WATER:** Miscible

**VOLATILITY INCLUDING WATER (%):** >80%

**VOLATILE ORGANIC COMPOUNDS (VOC):** 0%

## SECTION X – STABILITY AND REACTIVITY DATA

**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** None known

**INCOMPATIBILITY:** Alkaline Materials. Caustics.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCT:** Oxides of carbon and phosphorus.

**HAZARDOUS POLYMERIZATION:** Will not occur

## SECTION XI – TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:** Phosphoric Acid - 7664-38-2 - LD 50 Oral Rat: 1,530 mg/kg; LD 50 Dermal Rabbit: 2,740 mg/kg.

Hydroacetic acid (Glycolic acid) - LD50 - oral, rat: 1950 mg/kg | eye, rabbit: 2 mg (SEV)

**ECOLOGICAL INFORMATION:** Dangerous to aquatic life in high concentrations. Phosphoric acid: 138 ppm / 24 hr. / mosquito fish / TLm / fresh water

**SECTION XIII – DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** Dispose of in accordance with local, state and federal regulations. Offer drums for recycling. Pails and smaller containers should be rinsed, resealed, and disposed of properly.

**RCRA STATUS:** Waste likely considered Hazardous Waste D002 (Corrosive waste) due to the pH of the solution and the corrosive characteristic.

**SECTION XIV - TRANSPORTATION INFORMATION**

**PROPER SHIPPING NAME:** Consumer commodity

ORM-D

**HAZARD CLASS/DIVISION:** N/A

**UN/NA NUMBER:** N/A

**PACKAGING GROUP:** None

**AIR SHIPMENT**

**PROPER SHIPPING NAME:** Corrosive Liquid, Acidic, N.O.S., (Containing Phosphoric acid & Hydroacetic acid)

**HAZARD CLASS/DIVISION:** 8

**UN/NA NUMBER:** UN 1760

**PACKAGING GROUP:** III

**SHIPPING BY WATER:**

**VESSEL (IMO/IMDG)**

**PROPER SHIPPING NAME:** Corrosive Liquid, Acidic, N.O.S., (Containing Phosphoric & Hydroacetic acid)

**HAZARD CLASS/DIVISION:** 8

**UN/NA NUMBER:** UN 1760

**PACKAGING GROUP:** III

**NOTE:**

**SECTION XV - REGULATORY INFORMATION**

**TSCA STATUS:** All Chemicals are listed or exempt.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** The reportable quantity is 5000 pounds (phosphoric acid).

**SARA 311/312 HAZARD CATEGORIES:** None

**SARA 313 REPORTABLE INGREDIENTS:** None

**CLEAN WATER ACT:** None

**STATE REGULATIONS:** None

**INTERNATIONAL REGULATIONS:** None

**NFPA HEALTH:** 2

**HMIS HEALTH:** 2

**NFPA FLAMMABILITY:** 0

**HMIS FLAMMABILITY:** 0

**NFPA REACTIVITY:** 0

**HMIS REACTIVITY:** 0

**NFPA OTHER:** N/A

**HMIS PROTECTION:**

X, See your supervisor

**SECTION XVI - ADDITIONAL INFORMATION**

**PREPARATION BY:** Tad Hebdon

**DISCLAIMER:** To the best of our knowledge, information contained herein is accurate. However there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which exists. The information contained in this MSDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this MSDS shall be created or inferred by any statement in this MSDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.