

**Material Safety Data Sheet**  
**MARK 360 LOW TEMP DISH MACHINE DETERGENT**

**ChemMARK**

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24 HOUR EMERGENCY PHONE NUMBER:  
CHEMTREC: ..... 800-424-9300

**SECTION I - IDENTIFICATION**

**PRODUCT NAME:**..... MARK 360 LOW TEMP DISH MACHINE DETERGENT

**CHEMICAL FAMILY:**..... HIGHLY ALKALINE MATERIAL

**FORMULA:**..... N/A

**CAS NUMBER:**..... N/A

**SECTION II - HAZARDOUS INGREDIENTS**

HAZARDOUS INGREDIENT	PERCENT	CAS NUMBER	ACGIH/TLV	STEL/PEL
Potassium Hydroxide	10-20	1310-58-3	2 mg/M <sup>3</sup> (Ceil)	2 mg/M <sup>3</sup> (Ceil)
EDTA tetrasodium salt	1-5	64-02-8	NOT EST.	NOT EST.

(Also contains biodegradable surfactants.  
See section VI for additional TLV  
information.)

**SECTION III - PHYSICAL DATA**

**APPEARANCE:**..... Clear red liquid with mild odor.

**BOILING POINT:**..... 212° F.

**VAPOR PRESSURE:**..... NOT EST.

**VAPOR DENSITY (AIR=1):**..... NOT EST.

**SPECIFIC GRAVITY:**..... 1.19

**pH:**..... > 13.5

**SOLUBILITY IN WATER:**..... Completely soluble in water.

**SECTION IV - FIRE AND EXPLOSION DATA**

**FLASHPOINT:**..... > 200° F.

**LOWER EXPLOSIVE LIMIT:** .. N/A

**UPPER EXPLOSIVE LIMIT:** .... N/A

**EXTINGUISHING MEDIA:**..... Use extinguishing media appropriate to primary cause of fire.

**SPECIAL FIRE FIGHTING**

**PROCEDURES:**..... Avoid contact with fire fighting personnel as burns may result from contact with skin. When fighting a fire near or involving this product, wear a self-contained breathing apparatus (SCBA).

**UNUSUAL FIRE AND**

**EXPLOSION HAZARDS:**..... None known

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**SECTION V - REACTIVITY DATA**

**STABILITY:** ..... Stable  
**HAZARDOUS POLYMERIZATION:** Will not occur.  
**INCOMPATIBILITY:** ..... Avoid contact with aluminum, tin, zinc, bronze, brass and alloys containing these metals. Do not mix with acids or organic compounds due to possible violent reaction. Avoid contact with leather, wool, organic halogen and nitrogen compounds.

**HAZARDOUS DECOMPOSITION:** ..... Carbon monoxide and carbon dioxide upon thermal decomposition. May liberate oxygen which may contribute to the severity of a fire.

**HAZARDOUS POLYMERIZATION:** ..... Will not occur.

**SECTION VI - HEALTH DATA**

**THRESHOLD LIMIT VALUE:** . The TLV in section II is the ACGIH/TLV-TWA and OSHA/PEL, (the time weighted average concentration for an eight hour work day.) The STEL is the (short term exposure limit.) (Ceil) is the ceiling limit.

**OSHA PEL:** ..... Since this product is a mixture, there is no defined PEL(s) established by OSHA. Hazardous components are listed in the Hazardous Ingredients Section of this data sheet.

**LISTED CARCINOGEN:** ..... This product does not contain any components listed by NTP, IARC, or OSHA as carcinogens at the OSHA reportable levels.

**MEDICAL CONDITION AGGRAVATED:** ..... Existing skin and/or respiratory disorders may be aggravated by exposure.

**EYES:** ..... May cause severe irritation with corneal injury and result in permanent impairment of vision, even blindness. Dust, mists or vapors may irritate eyes.

**SKIN (DERMAL):** ..... **SKIN CONTACT:** Short single exposure may cause severe skin burns. **SKIN ABSORPTION:** A single prolonged skin exposure is not likely to result in absorption of harmful amounts. The dermal LD50 has not been determined.

**INGESTION:** ..... May cause gastrointestinal irritation or ulceration and severe burns of the mouth and throat. Single dose oral LD50 has not been determined.

**INHALATION:** ..... Dusts or mists may cause severe irritation in upper respiratory tract.

**CHRONIC OVEREXPOSURE:** . None known

**SECTION VII FIRST AID**

**EYES:** ..... Water is the only accepted method of removal of this product from the eyes or skin. You may have 10 seconds or less to avoid serious permanent injury. Therefore, **IMMEDIATE** first aid must be given after any exposure. Moving the victim from water access for transport to medical aid should be done only on the advice of qualified medical personnel. While transporting victim to a medical facility, continue washing if possible. In case of contact, immediately flush eyes with lots of running water for at least 15 minutes. Call for medical assistance.

**SKIN (DERMAL):** ..... Immediate and continued thorough washing with flowing water for 15 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash contaminated clothing before reuse. Destroy contaminated shoes or boots. Immediate and continued thorough washing with

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flowing water for 15 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash contaminated clothing before reuse. Destroy contaminated shoes or boots.

**INGESTION:** ..... NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

**INHALATION:**..... Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen as directed by medical personnel.

**NOTE TO PHYSICIAN:** ..... CORROSIVE! May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. Material is strong alkali. If burn is present, treat as any thermal burn, after decontamination. (For burns of skin only) Eye irrigation may be necessary for an extended period of time to remove as much caustic as possible. Duration of irrigation and treatment is at the discretion of medical personnel. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

**SECTION VIII EMPLOYEE PROTECTION**

**EYE PROTECTION:**..... Chemical safety splash goggles and full face shield (8" min.) to protect against splashing in compliance with OSHA regulations are advised. OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist) Contact lenses should not be worn when working with any chemicals.

**RESPIRATORY PROTECTION:** Respiratory protection should be worn if levels exceed defined PEL(s) for this product or any hazardous component listed in the Hazardous Ingredient Section of this DATA SHEET.

**PROTECTIVE CLOTHING:** ..... Impervious protective clothing and chemical resistant safety shoes should be worn to minimize contact. Emergency shower and eyewash facility should be in close proximity. (ANSI Z358.1)

**VENTILATION:** ..... Local exhaust sufficient to maintain TLV below permissible exposure limits.

**SECTION IX - SPILL AND DISPOSAL DATA**

**SPILL:** ..... Only trained and properly protected personnel should be involved in spill cleanup operations. Acting cautiously, small accidental spills should be carefully flushed with water. Dilute acid, preferably acetic acid, may be used to neutralize only the final traces of product after flushing. Spills or releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

**WASTE DISPOSAL:** ..... Consult all LOCAL, STATE, and FEDERAL regulations with regard to proper and suitable disposal methods.

**SECTION X - TRANSPORTATION DATA**

**HAZARD CLASS AND LABEL:** 8 (CORROSIVE)  
**PROPER SHIPPING NAME:** ..... POTASSIUM HYDROXIDE, SOLUTION 8 UN-1814 PG – II  
**UN NUMBER:** ..... UN 1814  
**PACKAGING GROUP:** ..... PG – II  
**REPORTABLE QUANTITY:** ..... 1000 LBS. (Based on Sodium or Potassium hydroxide content.)

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**SECTION XI - OTHER REGULATORY INFORMATION**

**TSCA STATUS:**..... All components in this product are listed on the TSCA inventory.  
**SARA SECTION 313:**..... This product **does not** contain any EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372).

C A S #	CHEMICAL NAME	PERCENT BY WEIGHT

.....

**NFPA HEALTH:** ..... 3  
**NFPA FLAMMABILITY:**..... 0  
**NFPA REACTIVITY:**..... 1  
**NFPA OTHER:**..... N/A

**SECTION XII - PRECAUTIONARY LABEL STATEMENTS**

**WARNING:** ..... DANGER! HIGHLY ALKALINE MATERIAL. Causes severe burns to skin eyes and throat. Eye contact may cause permanent eye damage and/or blindness. Harmful or fatal if swallowed. May react with food products to form hazardous vapors.

**HANDLING:**..... Do not get in eyes, on skin or on clothing. Avoid breathing dust, mists, or spray. Do not take internally. Wash thoroughly after handling or contact. Exposure can cause burns which are not immediately painful or visible. Do not add water to contents while in container because of possible violent reaction. Keep out of sun and away from heat, sparks and flames. Keep container tightly closed when not in use to prevent leakage. Do not use pressure to empty container. Do not wash out container or use it for other purposes. Replace closure after each withdrawal and return it with empty container. Empty containers retain product residue and must be handled as if they were full. KEEP OUT OF REACH OF CHILDREN.

**SECTION XIII - ADDITIONAL INFORMATION**

1. **ADDITIONAL:** Always add this product to water with constant agitation. NEVER add water to this product.

2. The water should be lukewarm. (80° - 100°F)

**FOOTNOTES:**..... NOT EST. = Not established, N/A = Not applicable

**REFERENCES:**..... The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. ChemMARK Inc. assumes no responsibility for injury to any person or property resulting from any use of the material if reasonable safety procedures are not adhered to. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.