



## I - PRODUCT IDENTIFICATION AND USE

MSDS ID: 0488

**PRODUCT NAME:** MACHINE DISH DETERGENT M1**USE:** Machine Warewashing Detergent**SUPPLIER:**JohnsonDiversey Canada, Inc.  
2401 Bristol Circle  
Oakville Ontario, L6H 6P1, Canada**EMERGENCY PHONE:****1-800-668-7171****WHMIS CLASSIFICATION:** D2B E**CHEMICAL FAMILY:** chlorinated alkali**TRADE NAME / SYNONYMS:** not applicable**CHEMICAL NAME:** not applicable

## II - HAZARDOUS INGREDIENTS

| HAZARDOUS INGREDIENT                 | % w/w | CAS #       | LD50 / LC50     | Route / Species |
|--------------------------------------|-------|-------------|-----------------|-----------------|
| Sodium hydroxide                     | 1-5   | 001310-73-2 | LDlo 500 mg/kg  | oral/rab        |
| Sodium hypochlorite (10.5%-solution) | 10-30 | 007681-52-9 | LD50 4445 mg/kg | oral/rat        |

## III - HANDLING AND DISPOSAL PROCEDURES

**PERSONAL PROTECTIVE EQUIPMENT:****Gloves:** Natural rubber, neoprene or nitrile**Eye:** safety glasses**Footwear:** not required**Respiratory:** not required**Other:** not required**SPECIAL HANDLING PROCEDURES AND EQUIPMENT:** Avoid eye and skin contact.**VENTILATION REQUIREMENTS:** general ventilation**INCOMPATIBILITY (Material to Avoid):** acids**SPILL PROCEDURES:** Contain the spill. Do not allow the spilled product to go to drain. Mop up or soak up with absorbent clay for disposal. Wear protective equipment during clean up.**WASTE DISPOSAL:** Dispose according to municipal, provincial, and federal regulations.**STORAGE / SHIPPING REQUIREMENT:** Store in a cool dry area in a closed container. UN3266

## IV - PHYSICAL PROPERTIES

**APPEARANCE / ODOUR:** Opaque white slurry - mild chlorine smell**S.G. / BULK DENSITY(g/cc):** 1.20**pH:** (concentrate): 13.0**VAPOUR PRESSURE (mmHg):** not applicable**VAPOUR DENSITY (air=1):** not applicable**ODOUR THRESHOLD:** not applicable**BOILING POINT:** not available**FREEZING POINT:** not available**PERCENT VOLATILE:** 50%**SOLUBILITY IN WATER:** soluble**EVAPORATION RATE (water=1):** not applicable

## V - TOXICOLOGICAL PROPERTIES

**EFFECTS OF ACUTE EXPOSURE TO MATERIAL:****EYES:** Corrosive. May cause severe irritation. May cause permanent damage if not treated promptly.**SKIN:** Corrosive. May cause severe irritation. May cause temporary or permanent damage if not treated promptly.**INGESTION:** Corrosive. May cause severe irritation of the digestive tract. May cause temporary or permanent damage if not treated promptly.**INHALATION:** Corrosive. Inhalation of spray or mist may cause severe respiratory irritation.**LD50 (calculated):** 10,667 mg/kg**LC50 (calculated):** not available

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| <b>OTHER TOXIC EFFECTS:</b> TLV-CL (sodium hydroxide) 2 mg/m3; TLV (chlorine) - TWA 0.5 ppm, - STEL 1 ppm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                 |
| <b>EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:</b> none known                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                 |
| <b>VI - FIRST AID MEASURES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                 |
| <b>EYES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Flush eyes with plenty of water for at least 15 minutes. Hold eyelids open while rinsing. Contact a physician immediately.                      |
| <b>SKIN:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Flush affected area thoroughly with water. If irritation develops, contact a physician.                                                         |
| <b>INGESTION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Drink large volumes of water . Never give anything by mouth to an unconscious patient. Do not induce vomiting. Contact a physician immediately. |
| <b>INHALATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Remove patient to fresh air.                                                                                                                    |
| <b>VII - FIRE AND EXPLOSION DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |
| <b>FLAMMABLE:</b> No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |
| <b>FLASH POINT, °C:</b> not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>AUTO IGNITION TEMPERATURE, °C:</b> N/Ap                                                                                                      |
| <b>EXTINGUISHING MEDIA:</b> Water [x] Dry Chemical [x] Carbon Dioxide [x] Foam [x] Other [ ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |
| <b>SPECIAL FIRE FIGHTING PROCEDURES:</b> Wear self-contained breathing apparatus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                 |
| <b>HAZARDOUS COMBUSTION PRODUCTS:</b> chlorine gas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                 |
| <b>EXPLOSIVE SENSITIVITY TO:</b> not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |
| <b>VIII - REACTIVITY DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                 |
| <b>STABILITY:</b> Stable [x] Unstable [ ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                 |
| <b>CONDITIONS TO AVOID:</b> high temperatures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                 |
| <b>INCOMPATIBILITY (Material to Avoid) :</b> acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                 |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Heat released on contact with acids. Contact with acids generates chlorine gas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |
| <b>REACTIVITY:</b> not dangerously reactive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |
| <b>IX - MSDS PREPARATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |
| <b>SOURCES USED:</b> RTECS, R.M. MSDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>PREPARED BY:</b> JohnsonDiversey Canada. Inc.<br>Regulatory Department<br>Institutional Division<br>Phone (905) 829-1200                     |
| <b>PREPARATION DATE:</b> April 15, 2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |
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