



| I - PRODUCT IDENTIFICATION AND USE                                                                                                                                                                                                                   |       |                                                                                      |                | MSDS ID: 01112  |
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| <b>PRODUCT NAME:</b> LIQUID DICA                                                                                                                                                                                                                     |       |                                                                                      |                |                 |
| <b>USE:</b> Inhibited acid descaler                                                                                                                                                                                                                  |       |                                                                                      |                |                 |
| <b>SUPPLIER:</b><br>JohnsonDiversey Canada, Inc.<br>2401 Bristol Circle<br>Oakville Ontario, L6H 6P1, Canada                                                                                                                                         |       | <b>EMERGENCY PHONE:</b><br><br><h2 style="text-align: center;">1-800-668-7171</h2>   |                |                 |
| <b>WHMIS CLASSIFICATION:</b> D1A E<br><b>CHEMICAL FAMILY:</b> mineral acid                                                                                                                                                                           |       | <b>TRADE NAME / SYNONYMS:</b> not applicable<br><b>CHEMICAL NAME:</b> not applicable |                |                 |
| II - HAZARDOUS INGREDIENTS                                                                                                                                                                                                                           |       |                                                                                      |                |                 |
| HAZARDOUS INGREDIENT                                                                                                                                                                                                                                 | % w/w | CAS #                                                                                | LD50 / LC50    | Route / Species |
| Hydrochloric acid                                                                                                                                                                                                                                    | 15-40 | 007647-01-0                                                                          | LD50 900 mg/kg | oral/rab        |
| III - HANDLING AND DISPOSAL PROCEDURES                                                                                                                                                                                                               |       |                                                                                      |                |                 |
| <b>PERSONAL PROTECTIVE EQUIPMENT:</b><br><b>Gloves:</b> Neoprene, or nitrile <b>Eye:</b> Safety goggles <b>Footwear:</b> As required<br><b>Respiratory:</b> If mists are generated, use NIOSH approved mask <b>Other:</b> Rubber apron               |       |                                                                                      |                |                 |
| <b>SPECIAL HANDLING PROCEDURES AND EQUIPMENT:</b> Do not breathe mist, spray or vapours. Avoid eye and skin contact.                                                                                                                                 |       |                                                                                      |                |                 |
| <b>VENTILATION REQUIREMENTS:</b> mechanical exhaust                                                                                                                                                                                                  |       |                                                                                      |                |                 |
| <b>INCOMPATIBILITY (Material to Avoid):</b> Alkaline and chlorinated materials, soft metals.                                                                                                                                                         |       |                                                                                      |                |                 |
| <b>SPILL PROCEDURES:</b> Contain the spill. Do not allow the spilled product to go to drain. Mop up or soak up with absorbent clay for disposal. Wash spill area with large volumes of water. Ventilate area well. Neutralize with lime or soda ash. |       |                                                                                      |                |                 |
| <b>WASTE DISPOSAL:</b> Dispose according to municipal, provincial, and federal regulations.                                                                                                                                                          |       |                                                                                      |                |                 |
| <b>STORAGE / SHIPPING REQUIREMENT:</b> Store in a cool dry area in a closed container. UN1789                                                                                                                                                        |       |                                                                                      |                |                 |
| IV - PHYSICAL PROPERTIES                                                                                                                                                                                                                             |       |                                                                                      |                |                 |
| <b>APPEARANCE / ODOUR:</b> Clear, light amber liquid                                                                                                                                                                                                 |       |                                                                                      |                |                 |
| <b>S.G. / BULK DENSITY(g/cc):</b> 1.15                                                                                                                                                                                                               |       | <b>pH:</b> < 1.0                                                                     |                |                 |
| <b>VAPOUR PRESSURE (mmHg):</b> 24mm Hg @ 20°C                                                                                                                                                                                                        |       | <b>VAPOUR DENSITY (air=1):</b> 1.3 (HCl gas)                                         |                |                 |
| <b>ODOUR THRESHOLD:</b> not available                                                                                                                                                                                                                |       | <b>BOILING POINT:</b> 100°C                                                          |                |                 |
| <b>FREEZING POINT:</b> -40°C                                                                                                                                                                                                                         |       | <b>PERCENT VOLATILE:</b> 98%                                                         |                |                 |
| <b>SOLUBILITY IN WATER:</b> soluble                                                                                                                                                                                                                  |       | <b>EVAPORATION RATE (water=1):</b> >1                                                |                |                 |
| V - TOXICOLOGICAL PROPERTIES                                                                                                                                                                                                                         |       |                                                                                      |                |                 |
| <b>EFFECTS OF ACUTE EXPOSURE TO MATERIAL:</b>                                                                                                                                                                                                        |       |                                                                                      |                |                 |
| <b>EYES:</b> Corrosive. May cause severe irritation. May cause permanent damage if not treated promptly.                                                                                                                                             |       |                                                                                      |                |                 |
| <b>SKIN:</b> Corrosive. May cause severe irritation. May cause temporary or permanent damage if not treated promptly.                                                                                                                                |       |                                                                                      |                |                 |
| <b>INGESTION:</b> Corrosive. May cause severe irritation of the digestive tract. Nausea, vomiting, diarrhea, circulatory collapse and death may occur.                                                                                               |       |                                                                                      |                |                 |
| <b>INHALATION:</b> May cause irritation of respiratory tract, coughing and choking. Inflammation and ulceration of respiratory tract may occur.                                                                                                      |       |                                                                                      |                |                 |
| <b>LD50 (calculated):</b> 900 mg/kg                                                                                                                                                                                                                  |       | <b>LC50 (calculated):</b> 1562 ppm/4H                                                |                |                 |

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| <b>OTHER TOXIC EFFECTS:</b> Breathing vapours may cause delayed lung injury. TLV: CL (as Hydrogen chloride) 5 ppm (7 mg/m3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |
| <b>EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:</b> not available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                 |
| <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. Get medical attention for any breathing difficulty.                                                                |
| <b>VII - FIRE AND EXPLOSION DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |
| <b>FLAMMABLE:</b> No. Will generate explosive hydrogen gas on contact with metals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                 |
| <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> Hydrogen chloride gas released when heated. Hydrogen gas released on contact with soft metals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |
| <b>EXPLOSIVE SENSITIVITY TO:</b> not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |
| <b>VIII - REACTIVITY DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                 |
| <b>STABILITY:</b> Stable [x] Unstable [ ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                 |
| <b>CONDITIONS TO AVOID:</b> not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |
| <b>INCOMPATIBILITY (Material to Avoid) :</b> Alkaline and chlorinated materials. Aluminum, brass, copper, iron, mild steel. Organic amines, oxides, and polymerizable monomers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Contact with chlorinated materials will release chlorine gas. Contact with alkali will generate heat and release hydrogen chloride gas. Contact with soft metals forms flammable hydrogen gas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |
| <b>REACTIVITY:</b> not dangerously reactive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |
| <b>IX - MSDS PREPARATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |
| <b>SOURCES USED:</b> RTECS, Cheminfo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>PREPARED BY:</b> JohnsonDiversey Canada, Inc.<br>Regulatory Department<br>Industrial Division<br>Phone (905) 829-1200                        |
| <b>PREPARATION DATE:</b> April 15, 2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |
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