



## I - PRODUCT IDENTIFICATION AND USE

MSDS ID: 11074

PRODUCT NAME: **SYSTEM KLEEN 500**

USE: Acidic scale remover

## SUPPLIER:

JohnsonDiversey Canada, Inc.  
2401 Bristol Circle  
Oakville Ontario, L6H 6P1, Canada

## EMERGENCY PHONE:

**1-800-668-7171**

WHMIS CLASSIFICATION: D1B E

CHEMICAL FAMILY: mineral acid

TRADE NAME / SYNONYMS: not applicable

CHEMICAL NAME: not applicable

## II - HAZARDOUS INGREDIENTS

| HAZARDOUS INGREDIENT | % w/w | CAS #       | LD50 / LC50    | Route / Species |
|----------------------|-------|-------------|----------------|-----------------|
| Hydrochloric acid    | 10-30 | 007647-01-0 | LD50 900 mg/kg | oral/rab        |

## III - HANDLING AND DISPOSAL PROCEDURES

## PERSONAL PROTECTIVE EQUIPMENT:

Gloves: Neoprene, Nitrile

Eye: Safety goggles

Footwear: Not required

Respiratory: If mists are generated, use NIOSH approved mask

Other: Rubber apron

## SPECIAL HANDLING PROCEDURES AND EQUIPMENT:

Avoid eye and skin contact. Always add product to water, never add water to product. Do not breathe mist, spray or vapours.

VENTILATION REQUIREMENTS: Mechanical exhaust

INCOMPATIBILITY (Material to Avoid): Alkaline, chlorinated and oxidizing materials.

SPILL PROCEDURES: Contain the spill. Do not allow the spilled product to go to drain. Neutralize with sodium bicarbonate, sodium carbonate or lime. Mop up or soak up with absorbent clay for disposal. Wash spill area with large volumes of water.

WASTE DISPOSAL: Dispose according to municipal, provincial, and federal regulations.

STORAGE / SHIPPING REQUIREMENT: Store in a cool dry area in a closed container. UN1789

## IV - PHYSICAL PROPERTIES

APPEARANCE / ODOUR: Clear red liquid

S.G. / BULK DENSITY(g/cc): 1.09

pH: (concentrate): &lt;1

VAPOUR PRESSURE (mmHg): not available

VAPOUR DENSITY (air=1): not available

ODOUR THRESHOLD: not available

BOILING POINT: not available

FREEZING POINT: not available

PERCENT VOLATILE: 77%

SOLUBILITY IN WATER: soluble

EVAPORATION RATE (water=1): &lt;1

## 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 permanent damage if not treated promptly.

INHALATION: Breathing vapours may cause respiratory irritation.

LD50 (calculated): 4926 mg/kg

LC50 (calculated): 955ppm/4H(inh/mouse)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OTHER TOXIC EFFECTS:</b> Hydrochloric acid TLV-CL 5 ppm as Hydrogen Chloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |
| <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. Get medical attention for any breathing difficulty.                                                                |
| <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> Hydrogen Chloride.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |
| <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, chlorinated and oxidizing materials. Aluminum, brass, copper, iron, mild steel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Contact with alkalis or oxidizing materials generates heat. Contact with chlorinated compounds liberates chlorine 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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