MATERIAL SAFETY DATA SHEET: BANISH

SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms
N/A

Trade Name & Synonyms
BANISH

Formula Mixture --> X

Manufacturer's Name
CHERREX DIV. OF MCI CORP.

Address
Box 131270
IRVING, TX 75015

Prepared By:
L. Boyton/Chemist

Product Code Number
9028

Emergency Phone Number
800-424-9300

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)
HYDROCHLORIC ACID

Hazard
CORROSIVE

EW
5 PPM
1

REL
5 PPM
2

SHELF
NOT EST.

CAS #: 7647-01-0

SECTION IIa - NON-HAZARDOUS INGREDIENTS

(NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE)

SECRET REGISTRY #: 409363-5028P

SECTION III - PHYSICAL DATA

Boiling Point (°F)
220

Specific Gravity (H2O=1)
1.09

Color:
LIGHT AMBER

Odor:
PUNGENT ACID

Clarity:
TRANSPARENT

Evaporation Rate (NU A/C=1)
0.1

Vapor Solubility by Volume
99.0

Viscosity:
NON-VISCOS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point
NON-FIABLE / N/A

Flammable Limits
N/A

LEL
N/A

UEL
N/A

Extinguishing Media
X --FOAM
X --Alcohol Foam
X --CO2
X --Dry Chemical
X --Water Spray
X --Other

Special Fire Fighting Procedures:
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE COMBUSTING FIRE.

Unusual Fire and Explosion Hazards:
DIRECT CONTACT WITH REACTIVE METALS, SUCH AS ALUMINUM, ZINC, MAGNESIUM AND COPPER, CAN CAUSE FORMATION OF FLAMMABLE HYDROGEN GAS WHICH CAN FORM AN EXPLOSIVE MIXTURE WITH AIR. MAY RELEASE HYDROGEN CHLORIDE GAS WHICH IS EXHILIT.

Aerosol Level (NFPA 308):
N/A

NFPA 704 Health Rating:
1

Flammability Rating:
5

Inflammability:
0

Stability:
1

Health:
3

Inertness:
0

Special:
0

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:
5 PPM AS HYDROCHLORIC ACID 1.

Effects of Overexposure:

Acute (Short Term Exposure):
SKIN: CONTACT WITH THE UNDILUTED MATERIAL WILL CAUSE BURNS UNLESS RINSED IMMEDIATELY. EYES: CONTACT WITH UNDILUTED MATERIAL WILL CAUSE PAINFUL BURNS AND POSSIBLE PERMANENT INJURY OR BLINDNESS. INHALATION: HIGH LEVEL OF EITHER VAPOR OR MIST MAY CAUSE SEVERE IRRITATION OF THE ENTIRE RESPIRATORY TRACT WITH COUGHING, BURNING SENSATION, AND CHOKE. INHALATION OF A HIGH VAPOR LEVEL CAN BE FATAL. INGESTION: WHILE UNLIKELY, INGESTION OF LARGE AMOUTS WILL CAUSE BURNS OF THE DIGESTIVE TRACT, PAIN, SWELLING, BURSTING AND/OR DIARRHEA.

Chronic (Long Term Exposure):
LONG-TERM EXPOSURE TO LOW LEVELS OF VAPORS OR MIST MAY CAUSE EROSION OF TRACHEA AND/ OR LUNG INJURY AND POSSIBLE LOSS OF SIGHT. REPEATED SKIN EXPOSURES MAY CAUSE DERMATITIS. OVEREXPOSURE AND/ OR SCARING. REPEATED INHALATION OF MIST OR VAPORS MAY CAUSE LARYNGITIS, BRONCHITIS, GLOTTIS, EXHILIT, PULMONARY OEDema AND GRANULATION. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: LUNGS.

Primary Routes of Entry:
X --Inhalation
X --Ingestion
X --Absorption
SECTION V - HEALTH HAZARD DATA (Continued)

Emergency and First Aid Procedures:

Eye Contact:
IMMEDIATELY RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE RINSONG FOR AT LEAST 15 MINUTES. HOLD THE EYELIDS APART TO ENSURE RINSE OF THE ENTIRE SURFACE OF THE EYES AND LIDS WITH WATER. GET IMMEDIATE MEDICAL ATTENTION.

Skin Contact:
WASH AFFECTED AREAS WITH LARGE AMOUNTS OF SOAP AND WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. GET IMMEDIATE MEDICAL ATTENTION. WASH CLOTHING AND CLEAN SHOES BEFORE REUSE.

Ingestion:
GIVE 1-4 GLASSES OF WATER BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

Notes to Physician:
THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogenic or Potential Carcinogenic By:

<table>
<thead>
<tr>
<th>ACUTE</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTH:</td>
<td>No</td>
</tr>
<tr>
<td>OSHA:</td>
<td>No</td>
</tr>
<tr>
<td>NFPA:</td>
<td>0</td>
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</tbody>
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HYDROCHLORIC ACID:

<table>
<thead>
<tr>
<th>ORL-LOD</th>
<th>990 MG/KG</th>
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</thead>
<tbody>
<tr>
<td>HVL-LOD</td>
<td>1124 FPM/1H</td>
</tr>
<tr>
<td>INH-LOD</td>
<td>1000 FPM/30MIN</td>
</tr>
<tr>
<td>EYE-LOD</td>
<td>5 MG/10ML</td>
</tr>
<tr>
<td>UNK-LOD</td>
<td>81 MG/KG</td>
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</tbody>
</table>

Exposures of 100 ppm for 4 hrs a day for 50 days caused only slight unrest and irritation to the eyes and nose of rabbits, guinea pigs, and pigeons. The hemoglobin content of the blood was also slightly diminished. Moderate to severe exposures of 10 ppm for 4 hrs did not display any adverse effects. Higher exposures have caused weight loss which paralleled the severity of the exposure. Animals exposed to 500, 5600 or 16,600 FPM for 10 minutes did not have significant alterations in any pulmonary function parameters 3 days or 3 months after exposure. In humans, long term over-exposures have been associated with erosion of teeth.

No standard carcinogenic studies for hydrogen chloride were identified. Two studies on rats were conducted to determine if hydrogen chloride increased the formation of nasal tumors or increased the carcinogenic potential of formaldehyde. In both studies, the rats were exposed to 10 ppm hydrogen chloride, 6 hrs per day, 5 days a week. One study lasted 84 weeks while the other lasted the animal's lifetime. Hydrogen chloride did not cause an increase in nasal tumors and did not increase the carcinogenicity of formaldehyde. Hydrogen chloride is not listed in the IARC, NTP, or OSHA carcinogenic lists.

SECTION VII - REACTIVITY DATA

Stability:
| X --- Stable |

Conditions to Avoid:
CONTACT WITH SAVES CAN CAUSE VIOLENT REACTION GENERATING LARGE AMOUNTS OF HEAT. REACTIONS WITH METALS CAN RELEASE HYDROGEN GAS.

Incompatibility (Materials to Avoid):
GASES, ALKALI AND ACTIVE METALS, CYANIDES, SULFIDES, AMINES, FORMALDEHIDE, CANCROIDS OF CALCIUM, ACETILIDES OF CYST AMINOID

Hazardous Decomposition Products:
HYDROGEN CHLORIDE, HYDROGEN, AND CHLORINE GASES CAN FORM IF HEATED TO DECOMPOSITION.

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:
PICK UP AND CONTAIN SPILL. ASSURE WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. WEAR APPROPRIATE PROTECTIVE CLOTHING.

Wastes Disposal Method(s):
DISPOSE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS

Neutralising Agent:
USE SODIUM BICARBONATE OR SODA ASH. ADD CAUTIOUSLY WHILE MIXING. WEAR APPROPRIATE PROTECTIVE EQUIPMENT.

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:
LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE MISTS OR VAPORS.

Respiratory Protection:
A HIGH-ERA APPROVED RESPIRATOR IN POORLY VENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACUSH TFL OR OSHA FEL OR WHERE MISTING EXISTS.

Glove Protection:
NEOPRENE OR NEOPRENE RUBBER GLOVES SHOULD BE WORN.

Eye Protection:
CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN.
SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature:
- Indoors: X
- Outdoors:

Minimum Temperature: 32 F
Maximum Temperature: 100 F

Precautions to be Taken in Handling and Storing:
- ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER.
- KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. DO NOT STORE NEAR ALKALI MATERIALS OR CHLORINE COMPOUNDS.

Other Precautions:
- KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

Chemical Name
- HYDROCHLORIC ACID
- CHLORIC ACID

CAS Number
- 7647-01-0
- 7647-01-0

Upper Limit
- 20
- 20

Those ingredients listed above are subject to the reporting requirements of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 722.

Please call 1-800-527-9519 for additional information if you are a California customer. This MSDS is not intended for news in the state of California.

SECTION XII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1999.
2. OSHA PEL.
4. VENDOR'S MSDS.

ALL COMPONENTS IN THIS PRODUCT CAN BE FOUND IN THE CURRENT TSCA INVENTORY.


THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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