# MATERIAL SAFETY DATA SHEET CHAMPION MURIATIC ACID

# **SECTION I - PRODUCT IDENTIFICATION**

PRODUCT NAME: Champion Muriatic Acid

CAS NAME AND NO.: Hydrochloric Acid (7647-01-0)

<u>CHEMICAL FAMILY:</u> Inorganic Acid

#### CHEMICAL FORMULA: Hcl

#### **DISTRIBUTOR'S NAME AND ADDRESS:**

## DATE LAST REVISED:

EMERGENCY TELEPHONE NO.:

Champion Packaging & Dist., Inc. 1840 Internationale Parkway Woodridge, IL 60517 (630) 972-0100

January 1, 2004

Infotrac: 1-800-535-5053

## **SECTION II - HAZARDOUS INGREDIENTS**

### <u>COMPONENT</u> <u>% (WT OR VOL)</u> <u>PERMISSIBLE EXPOSURE LIMIT</u>

Hydrogen Chloride 30 – 36 % OSHA: 7mg / m3 (5 ppm)

**NON-HAZARDOUS** 



# Water (CAS No. 7732-18-5) 64 – 70% N/A

### **SECTION III - PHYSICAL PROPERTIES**

<u>APPEARANCE AND ODOR</u>: Colorless to slightly yellow; sharp, pungent, irritating odor.

BOILING POINT (DEGREES FAHRENHEIT): 142' F – 230' F (61' – 110' C)

VAPOR PRESSURE (MM. OF MERCURY): 78mm Hg. @ 68°F (20' C)

<u>SPECIFIC GRAVITY (WATER = 1):</u> Approx. 1.18 @ 68' F (20' C)

VAPOR DENSITY (AIR = 1): 1.27

SOLUBILITY IN WATER: Complete

WEIGHT: 9.67 lbs. per gallon

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#### **SECTION IV - FIRE AND EXPLOSION DATA**

# FLASH POINT: Not flammable. Flammable limits in air (% by volume) LEL: N/A UEL: N/A

## FIRE EXTINGUISHING MEDIA: Use any means suitable for extinguishing surrounding fire.

<u>SPECIAL FIRE FIGHTING PROCEDURES & EQUIPMENT</u>: No fire hazards exist directly from Hydrochloric Acid; however, when Hydrochloric Acid comes in contact with common metals, it can generate hydrogen gas. In sufficient concentrations, hydrogen can form explosive mixtures in air. Firefighters exposed to Hydrochloric Acid vapors should wear a self-contained breathing apparatus and full protective acid-resistant clothing. Water spray should be used to cool fire exposed containers and to control vapors.

## **SECTION V - REACTIVITY DATA**

## STABILITY: Stable under ordinary conditions of use and storage.

### **INCOMPATIBILITY (MATERIALS TO AVOID):** Oxidizers, metals and caustics.

<u>HAZARDOUS DECOMPOSITION PRODUCTS</u>: Contact with common metals produces hydrogen which may form explosive mixtures with air. Thermal decomposition may release corrosive hydrogen chloride gas. Contact with strong oxidizers may produce chlorine gas. Reacts with formaldehyde to produce bischloromethyl ether, OSHA regulated carcinogen.

<u>HAZARDOUS POLYMERIZATION:</u> This substance does not polymerize.

## **SECTION VI - SPILL, LEAK, AND DISPOSAL PROCEDURES**

Evacuate area and deny entry by unauthorized personnel. Do not breathe vapors and keep upwind. For large spills, contain and pump into tank that has been constructed for Hydrochloric Acid service. Full acid resistant suits and self-contained breathing apparatus should be worn during emergency operations. Knock down vapors with water spray or water fog. Water used to knock down vapors may become corrosive and should be contained properly for later disposal. Neutralize spill with lime, sodium bicarbonate or crushed limestone. Since neutralization with these bases will generate heat (exothermic), the reaction can be violent. The acid should be diluted and cooled before attempting to neutralize. DO NOT FLUSH TO SEWER BEFORE NEUTRALIZING AND CONSULTING FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS. For small spill, take up with sand or other absorbent material and react with dry alkali (soda ash or lime). Place into container for later disposal. Spills of 5000 lbs. or more MUST be reported to the National Response Center, 1-800-424-8802.

## **SECTION VII - HEALTH HAZARD INFORMATION**

## IS CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN?: NTP – NO; IARC – NO; OSHA – NO.

<u>ACUTE TOXICITY</u> <u>PROBABLE ROUTES OF EXPOSURE:</u> Ingestion, inhalation, skin absorption.

<u>INHALATION</u>: Hydrogen chloride gas, mist and vapor can cause irritation of respiratory tract, with burning, choking, coughing, headaches and rapid heartbeat. Levels of 10 to 35 ppm can cause irritation of throat and 50 to 100 ppm is nearly unbearable for 1 hour. Inflammation, destruction of nasal passage and breathing difficulties can occur with higher concentrations and may be delayed in onset. 1000 to 2000 ppm can be fatal.

<u>SKIN</u>: Liquid hydrogen chloride or concentrated vapors can rapidly cause burning of skin. Repeated or prolonged contact with diluted solutions and concentrated vapors can cause irritations and dermatitis.

EYES: Liquid or concentrated vapors can cause eye irritations, severe burns and permanent damage including blindness.

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<u>INGESTION:</u> Can cause severe burns of mouth, esophagus and stomach. Nausea, pain and vomiting frequently occur. Depending upon amounts swallowed, holes in the intestinal tract, kidney inflammation, shock and death can occur.

<u>CHRONIC TOXICITY</u>: Exposures of 100 ppm for 6 hours 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. Monkeys receiving twenty exposures of 33 ppm for 6 hours did not display any adverse effects. Higher exposures (unspecified) have caused weight loss that paralleled the severity of exposure. Baboons exposed to 500, 5000, or 10000 ppm for 15 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 the teeth.

#### <u>SECTION VIII – EMERGENCY AND FIRST AID PROCEDURES</u>

<u>INGESTION</u>: If conscious, give large quantities of water. DO NOT INDUCE VOMITING. Get medical attention immediately.

<u>INHALATION</u>: Remove victim to fresh air at once. If breathing stops, administer artificial respiration. Get medical attention immediately.

EYE CONTACT: Wash eyes immediately with large amounts of water (preferably eye wash fountain), lifting the upper and lower eyelids and rotating eyeball. Continue washing for a minimum of 15 minutes. Get medical attention immediately.

<u>SKIN CONTACT</u>: Remove contaminated clothing and wash skin thoroughly for a minimum of 15 minutes with large quantities of water (preferably a safety shower). Get medical attention immediately. Wash clothing before re-use. Destroy contaminated shoes.

## **SECTION IX – OCCUPATIONAL CONTROL MEASURES**

EYE PROTECTION REQUIREMENTS: Splash-proof safety goggles and a full-face shield to prevent contact.

SKIN PROTECTION REQUIREMENTS: Rubber or neoprene gloves and boots, and acid resistant coats or overalls appropriate for work conditions. Employees should wash their hands and face before eating, drinking or using tobacco.

<u>VENTILATION REQUIREMENTS</u>: Provide local exhaust or process enclosure ventilation to maintain levels below the recommended exposure limit. Prevent any condensate formed from dropping on workers.

<u>RESPIRATORY REQUIREMENTS</u>: Full-face NIOSH/MSHA approved respirator for acid gasses. Do not exceed the working limits of the respirator.

<u>ADDITIONAL PROTECTIVE MEASURES</u>: Eye wash and safety showers should be immediately available. Full acid suits and NIOSH/MSHA approved self-contained breathing apparatus should be readily available to handle major spills.

# **SECTION X – HANDLING AND STORAGE**

### STORAGE TEMPERATURE (MIN/MAX): Ambient / Ambient

<u>SHELF LIFE:</u> Unlimited in tightly closed containers.

SPECIAL SENSITIVITY: None known.

<u>HANDLING / STORAGE PRECAUTIONS</u>: Keep container tightly closed when not in use. Hydrochloric Acid should be handled and stored in equipment suitable and designed for acid service. Store in a cool, dry place in original or similar waterproof container. Wash thoroughly after handling.



#### DOT HAZARD CLASS:

DOT PLACARD REQUIRED:

DOT LABEL:

**NFPA RATING:** 

#### 8



<u>REPORTABLE QUANTITY:</u> 5000 LBS. – 2270 KG.

<u>OSHA STATUS</u>: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

<u>CERCLA REPORTABLE QUANTITY:</u> 5000 LBS. – 2270 KG. For Hydrochloric Acid

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE: None.

<u>SECTION 311-312 HAZARD CATEGORY</u>: Immediate Health Hazard.

Corrosive – 8

<u>SECTION 313 TOXIC CHEMICALS:</u> Hydrochloric Acid, CAS# 7647-01-0, Approx. 36%.

Corrosive – UN 1789

TSCA STATUS: On TSCA Inventory.

<u>IMPORTANT</u>: When discarded in its purchased form this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. CHAMPION PACKAGING MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATE HEREIN. Champion Packaging will not be liable for claims resulting from the use of or reliance upon such information.

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