



MURIATIC ACID

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Manufacturing Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents, and contractors of the information on the sheet.

SECTION I - GENERAL INFORMATION																			
Black Swan Manufacturing Co. 4540 W. Thomas Street Chicago, IL 60651-3318 Telephone No: 1-773-227-3700 Fax No: 1-773-227-3705		For chemical emergencies during transportation only call INFOTRAC 1-800-535-5053 24 hours per day - 7 days a week																	
Date Prepared 01/01/08		Trade Name MURIATIC ACID																	
SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION																			
HAZARDOUS COMPONENTS CAS#	APPROX%	ACGIH-TLV	OSHA-PEL																
HYDROGEN CHLORIDE 7647-01-0	35	5 PPM	5 PPM																
*Title III Section 313 Supplier Notification: this product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency planning and community Right-to-Know Act of 1966 and of 40CFR372. This information must be included in all MSDS's that are copied and distributed for this material.																			
SHIPPING INFORMATION		SPECIAL HAZARD DESIGNATIONS																	
<u>FOR CONTAINERS UNDER 1 LITER SIZE</u>		<table border="1"> <thead> <tr> <th></th> <th><u>HMIS</u></th> <th><u>NFPA</u></th> <th><u>HAZARD RATING</u></th> </tr> </thead> <tbody> <tr> <td>HEALTH</td> <td>3</td> <td>3</td> <td>0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> <td>0</td> <td>1- SLIGHT</td> </tr> <tr> <td>REACTIVITY</td> <td>0</td> <td>0</td> <td>2- MODERATE</td> </tr> </tbody> </table>			<u>HMIS</u>	<u>NFPA</u>	<u>HAZARD RATING</u>	HEALTH	3	3	0 - MINIMAL	FLAMMABILITY	0	0	1- SLIGHT	REACTIVITY	0	0	2- MODERATE
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<p>CONSUMER COMMODITY ORM-D</p> <p>FOR CONTAINERS ABOVE 1 LITER SIZE</p> <p>SHIPPING NAME HYDROCHLORIC ACID, SOLUTION HAZARD CLASS 8 I.D. NO. UN1789 PACKING GROUP II FREIGHT CLASS 55 LABEL REQUIRED CORROSIVE</p>	<p>PROTECTIVE 3- SERIOUS EQUIPMENT H 4- SEVERE</p>
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SECTION III - PHYSICAL DATA

<p>APPEARANCE YELLOW LIQUID</p>	<p>ODOR ACRID, PUNGENT</p>	<p>BOILING POINT 84° C (183° F)</p>
<p>SPECIFIC GRAVITY (H2O=1) 1.16</p>	<p>VAPOR PRESSURE (mm Hg.) 35</p>	<p>VOLATILE BY VOLUME (%) N/A</p>
<p>VAPOR DENSITY (AIR=1) 1.27</p>	<p>EVAPORATION RATE (BUAC=1) GREATER THAN 1</p>	<p>SOLUBILITY IN WATER COMPLETE</p>

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

<p>FLASH POINT (METHOD USED)</p>	<p>FLAMMABLE LIMITS</p>	<p>LEL</p>	<p>UEL</p>
<p>WILL NOT BURN.</p>	<p>(PERCENT BY VOLUME)</p>	<p>N/A</p>	<p>N/A</p>

FIRE EXTINGUISHING MEDIA
AS APPROPRIATE FOR COMBUSTIBLES IN AREA.

SPECIAL FIRE FIGHTING PROCEDURES
USE WATER SPRAY TO COOL TANKS AND CONTROL VAPORS. RUNOFF FROM FIRE CONTROL MAY CAUSE POLLUTION. NEUTRALIZE WITH CHEMICALLY ALKALINE SUBSTANCES (SUCH AS SODA ASH OR LIME) TO PREVENT CORROSION OF METALS AND FORMATION OF HYDROGEN. FOR POTENTIAL EXPOSURE TO ACID OR FUMES, WEAR

FULL PROTECTIVE CLOTHING WITH HOOD AND BREATHING AIR SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARD

REACTS WITH METALS TO GIVE OFF HYDROGEN WHICH IS FLAMMABLE AND EXPLOSIVE.

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES OR ENTRY Inhalation Skin contact Eye contact
 Ingestion

EFFECT OF OVEREXPOSURE

EXCESSIVE CONTACT CAN CAUSE EYE AND SKIN BURNS. INGESTION CAUSES SEVERE BURNS TO MOUTH, ESOPHAGUS AND STOMACH. VAPORS EXTREMELY IRRITATING.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

INGESTION: SEVERE DAMAGE TO INTERNAL ORGANS (ESOPHAGUS & PYLORUS) WILL OCCUR IF SWALLOWED IN LARGE QUANTITIES.

INHALATION: FUMES FROM PRODUCT CAN CAUSE INJURY TO RESPIRATORY TRACT. SEVERE EXPOSURE CAN CAUSE LUNG DAMAGE.

SKIN CONTACT: PROLONGED CONTACT CAUSES BURNS, SKIN IRRITATION WITH DISCOMFORT AND RASH.

EYE CONTACT: WILL CAUSE EYE BURN AND IRRITATION WITH DISCOMFORT, TEARING OR BLURRING OF VISION.

EMERGENCY AND FIRST AID PROCEDURES

REMOVE TO FRESH AIR. FLUSH AFFECTED PARTS PROMPTLY WITH COPIOUS QUANTITIES OF WATER.

FOR INHALATED TREATMENT, REMOVE PATIENT TO CLEAN AIR, AND IF NECESSARY SUPPLY OXYGEN FOR BREATHING.

SECTION VI - REACTIVITY

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	DO NOT STORE NEAR OR MIX WITH STRONG ALKALIS SUCH AS SODIUM OR POTASSIUM.

INCOMPATIBILITY (MATERIALS TO AVOID)
 REACTS WITH MOST METALS, GIVING HYDROGEN; WITH OXIDIZING AGENTS, GIVING CHLORINE; WITH CYANIDES, GIVING HYDROGEN CYANIDE; WITH SULFIDES, GIVING HYDROGEN SULFIDE; AND WITH FORMALDEHYDE, GIVING BISCHLOROMETHYL ETHER (AN OSHA REGULATED CARCINOGEN).

HAZARDOUS DECOMPOSITION PRODUCTS
 HEAT CAN CAUSE EVOLUTION OF GASEOUS HYDROGEN CHLORIDE.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	N/A

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
 AVOID BREATHING VAPORS. EVACUATE AREA UNTIL VAPORS ARE DISPERSED. FLUSH DOWN AREA WITH PLENTY OF WATER.
 NEUTRALIZE WASHINGS WITH LIME OR SODA ASH.

WASTE DISPOSAL METHOD
 NEUTRALIZE TO PH OF 7 WITH SUITABLE ALKALI. CONSULT LOCAL WASTE DISPOSAL AUTHORITIES FOR REGULATIONS.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)
 SELF-CONTAINED BREATHING APPARATUS OR MASK WHICH IS NIOSH/MSH APPROVED.

VENTILATION
 MAINTAIN ADEQUATE VENTILATION.

PROTECTIVE GLOVES RUBBER OR NEOPRENE GLOVES	EYE PROTECTION FACE SHIELDS, CHEMICAL GOGGLES
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OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES
 APRONS, BOOTS, SAFETY SHOWER AND EYEWASH FOUNTAINS SHOULD BE AVAILABLE.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

KEEP IN COOL DRY AREA.

OTHER PRECAUTIONS

READ DIRECTIONS COMPLETELY AND CAREFULLY.

This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

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