



## MATERIAL SAFETY DATA SHEET

**Catalog No.:** 100262 **Effective date:** March 2004  
**Product Id.:** Acid Wash Solution  
**Manufactured by:** **Microgenics**  
46360 Fremont Boulevard  
Fremont, CA 94538 USA

### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

*The hazards identified with this product are those identified below.*

**MSDS Name:** **Hydrochloric Acid**  
**Hazardous Ingredient:** Hydrochloric Acid % 3.5 – 23 **Chemical Formula:** HCL  
**CAS Number:** 7647-01-0, Molecular Weight: Aqueous Solution **Hazard Symbol:** not available  
**Synonyms:** **Risk Phrases:** not available  
**EINECS #:** not available

**PRECAUTIONARY INFORMATION**  
**WARNING! HARMFUL IF SWALLOWED.**  
*Wash thoroughly after handling.*

### SECTION 3 – EMERGENCY OVERVIEW

**Appearance:** Clear, colorless liquid **DANGER! Causes Burns**  
**Causes eye and skin burns. Harmful if swallowed or inhaled. Vapor is irritating to the eyes and respiratory passages.**  
**Target Organ:** None

#### **Potential Health Effects:**

Eye & Skin: Causes severe eye burns. Causes skin burns.  
Ingestion: Causes gastrointestinal tract burns. May cause severe pain, nausea, vomiting, diarrhea, and shock.  
Inhalation: Vapor is a severe irritant to respiratory tract with coughing, burns, breathing difficulty, and possible coma.

### SECTION 4 – FIRST AID MEASURES

Eye & Skin: Get medical aid immediately. DO NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes). Immediately flush skin with plenty of soap and water for at least 15 minutes, while removing contaminated clothing and shoes. Discard contaminated clothing in a manner, which limits further exposure.  
Ingestion: DO NOT induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.  
Inhalation: If inhaled, remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately.  
**Note:** TO PHYSICIAN- Treat symptomatically and supportively.

### SECTION 5 – FIRE FIGHTING MEASURES

**Fire:** Non- combustible **NFPA Rating:** Not Applicable  
**Explosion Limits:** Thermal decomposition produces toxic fumes **Flash point:** Not Applicable  
**Fire Extinguishing Media:** Water Spray **Autoignition Temperature:** Not Applicable  
**General Information:** Contact with metals can produce hydrogen which may form explosive mixtures with air. Upper and lower flammable limit (%) not available. No sensitivity to static discharge or mechanical impact.  
**Fire Fighting Procedures:** Firefighters should wear a self-contained breathing apparatus.  
**Hazardous Combustion Products:** HCL



### SECTION 6 – Accidental Release Measures

**General Information:** Use proper personal protective equipment indicated in section 8.

**Spills & Leaks:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed in Exposure Controls/Personal Protection. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory information for reportable quantity and other regulatory data.

### SECTION 7 – Handling & Storage

**Handling:** Wash thoroughly after handling. Keep away from eyes. Do not breath solution mist. Do not get in eyes, on skin or on clothing.

**Storage:** Store in cool, dry, well-ventilated area away from incompatible substances, such as metals. Keep containers closed at all times. Keep away from flammable liquids. Keep away from organic halogens.

### SECTION 8 – Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Engineering and/or Administrative controls should be implemented to reduce exposure.

CHEMICAL NAME	ACGIH TLV	OSHA PEL
Hydrochloric Acid	5 PPM	5 PPM

OSHA Vacated PELs: HCL – No OSHA Vacated PELs are listed for this chemical

#### **Personal Protective Equipment:**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149 approved respirator when necessary.

### SECTION 9 – Physical and Chemical Properties

<b>Appearance:</b>	Clear, colorless liquid, odorless	<b>Solubility:</b>	Completely soluble in water
<b>Boiling Point:</b>	Not Available	<b>Specific Gravity:</b>	Not Available
<b>Evaporation Rate:</b>	Not Available	<b>Vapor Density:</b>	Not Available
<b>Melting Point:</b>	Not Available	<b>Vapor Pressure:</b>	Not Available
<b>Odor:</b>	None reported	<b>Viscosity:</b>	Not Available
<b>pH:</b>	Acid	<b>Decomposition Temp:</b>	Not Available

### SECTION 10 Stability & Reactivity

**Chemical Stability:** Stable under normal temperature and pressures.

**Conditions to Avoid:** Heat

**Incompatible with Other Metals:** Bases, powdered metals, alkalies and amines

**Hazardous Decomposition Products:** Toxic fumes HCL, CL2.

**Hazardous Polymerization:** Does not occur

### SECTION 11 – Toxicology Information

<b>RTECS #:</b>	CAS # 7647-01-0	<b>LD50/LC50:</b>	Not listed
<b>Carcinogenicity:</b>	Not listed (IARC, NTP, OSHA)	<b>Epidemiology:</b>	No information reported
<b>Teratogenicity:</b>	No information reported	<b>Reproductive effects:</b>	No information reported
<b>Neurotoxicity:</b>	No information reported	<b>Mutagenicity:</b>	No information reported
<b>Other studies:</b>	No information reported		



### SECTION 12 – Ecological Information

**Ecotoxicity:** No data available  
**Environment Fate:** No data available  
**Physical/Chemical:** No data available  
**EPA Waste Number(s):** D002

### SECTION 13 – Disposal Considerations

**RCRA D-Series Maximum concentration of contaminants:** Observe all Federal, State and local environmental regulations  
**RCRA D-Series Chronic Toxicity Reference Levels:** Observe all Federal, State and local environmental regulations  
**RCRA F-Series, RCRA P-Series, RCRA U-Series:** Observe all Federal, State and local environmental regulations  
**EPA Waste Number(s):** D002  
Always contact a permitted waste disposer (TSD) to Assure compliance with all current and local, state and federal regulations.

### SECTION 14 – Transport Information

**US DOT:** Shipping Name: Hydrochloric Acid Solution      **Hazard Class:** 8      **UN Number:** UN1789  
**Packing Group:** II

**IMO/IATA:** No information found  
**RID/ADR:** No information found

**Canada TDG:** Shipping Name: Hydrochloric Acid Solution      **Hazard Class:** 8(9.2)      **UN Number:** UN1789

**Carcinogenicity:** Not listed      **Epidemiology:** No information reported

### SECTION 15 – Regulatory Information

#### **US FEDERAL**

**TSCA:** CAS # 7647-01-0 is listed on the TSCA inventory  
**Health & Safety Reporting List:** None of the chemicals are on the Health and Safety Reporting List.  
**Chemical Test Rules:** None of the chemicals in this product are under a chemical test rule. Chemicals are listed under TSCA Section 12b.  
**TSCA Significant New Use Rule:** None of the chemicals in this material have a SNUR under TSCA.

**SARA:** CAS # 7647-01-0  
**Section 302 (RQ):**  
**Section 302 (TPQ)** None of the chemicals in this product have TPQ.  
**Sara codes CAS # 7647-01-0:** Acute, reactive, Section 313 1.0 %  
**TSCA Significant New Use Rule:** None of the chemicals in this material have a SNUR under TSCA.

**Clean Air Act:**  
**Hazardous Air Pollutants:** This material does not contain any of these

**Clean Water Act:**  
**CAS # 7647-01-0:** is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE** HCL can be found in the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts. Water is not present on state lists from CA, PA, MN, MA, FL, or NJ. California No Significant Risk Level: None of the chemicals in this product are listed.



**EUROPEAN/INTERNATIONAL REGULATIONS**

European Labeling in Accordance with EC Directives

**Safety Phrases:**

**Hazard Symbol:** C

**Risk Phrases:** R 35 Causes severe burns

S 2 Keep out of reach of children. S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

**WGK (Water Danger/Protection)**

CAS # CAS # 7647-01-0

**Canada**

CAS # 7647-01-0

**Exposure Limits**

CAS # 7647-01-0

**SECTION 16 – Additional Information**

**MSDS Creation Date:** 3/22/04

**Revision #:** 0

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Microgenics makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, Microgenics will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.