



## Safety Data Sheet

Revision: 01

Date: March 20, 2017

### SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

#### 1. Product Identifiers

Product Name Hydrochloric Acid, Solution 0.01M  
Catalog No 5077  
Brand Name Hydrochloric Acid Solution 0.01M  
CAS No. 7647-01-0

#### 2. Relevant identified uses of the substance or mixture and uses advised against

Identified Uses Laboratory chemicals, Manufacturer of substances

#### 3. Details of the supplier of the safety data sheet

Company Advanced BioMatrix, Inc.  
5930 Sea Lion Place  
Carlsbad, CA 92010 USA  
Phone: 1-800-883-8220  
1-760-929-0755 outside USA  
Fax 1-510-217-3452

#### 4. Emergency telephone number

Emergency Phone No. 1-800-883-8220

### SECTION 2 – HAZARDS IDENTIFICATION

#### 1. Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals (Category 1), H290

Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3),

Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2. GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P234	Keep only in original container.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant stainless steel container with a resistant inner liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

**3. Hazards not otherwise classified (HNOC) or not covered by GHS – None.**

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

### 1. Substances

Formula : HCl  
Molecular weight : 36.46 g/mol

#### Hazardous components

Component	Classification	Concentration
<b>Hydrochloric acid</b>		
CAS-No.	7647-01-0	Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; H290, H314, H335
EC-No.	231-595-7	
Index-No.	017-002-01-X	
Registration number	01-2119484862-27-XXXX	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4 – FIRST AID MEASURES

### 1. General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### 2. Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

### 3. Skin Contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

### 4. Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### 5. Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 6. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

### 7. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5 – FIREFIGHTING MEASURES

### 1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 2. Special hazards arising from the substance or mixture

No data available

### 3. Advice for firefighters

Wear self-contained breathing apparatus for firefight if necessary.

**4. Further Information**

No data available

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**1. Personal precautions, protective equipment and emergency procedures**

Avoid breath vapors, mist or gas.

For personal protection see section 8.

**2. Environmental precautions**

Do not let product enter drains.

**3. Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**4. Reference to other sections**

For disposal see section 13.

**SECTION 7 – HANDLING AND STORAGE**

**1. Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

**2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage: room temperature

**3. Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

**1. Workplace control parameters**

Component	CAS No.	Value	Control parameters	Basis
Hydrochloric acid	7647-01-0	C	2.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Not classifiable as a human carcinogen.		

		C	5.000000 ppm 7.000000 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		Often used in an aqueous solution.		
		C	5.000000 ppm 7.000000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m <sup>3</sup> is approximate. Ceiling limit is to be determined from breathing-zone air samples.		
		C	2 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Not classifiable as a human carcinogen		
		C	5 ppm 7 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		Often used in an aqueous solution.		
		C	5 ppm 7 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m <sup>3</sup> is approximate. Ceiling limit is to be determined from breathing-zone air samples.		
		C	5 ppm 7 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

## 2. Exposure controls

### Appropriate engineering control

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/Face protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of the contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Full contact**

Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm B  
Break through time: 480 min  
Material tested: Dermatril®

**Splash contact**

Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril®

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

<b>SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES</b>
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Appearance

Form

Liquid

Color

Light yellow

Odor

Pungent

Odor threshold

No data available

pH	No data available
Melting point/freezing point	-30°C (-22°F)
Initial boiling point and boiling range	> 100°C (> 212°F) – lit.
Flash point	Not applicable
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability	No data available
Vapor pressure	227 hPa (170 mmHg) at 21.1°C (70°F)
Vapor density	No data available
Relative density	1.2 g/cm <sup>3</sup> at 25°C (77°F)
Water solubility	Soluble
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## SECTION 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under recommend storage conditions
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Incompatible material	Bases, Amines, Alkali metals, Metals, permanganates, e.g. potassium permanganate, Fluorine, metal acetylides, hexalithium disilicide
Hazardous decomposition products	
Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas	
Other decomposition products -	No data available

\*\*In the event of fire: see section 5.\*\*

## SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity Inhalation	No data available (Hydrochloric acid) May provoke the following symptoms: Respiratory irritation, cough,
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	difficulty in breathing, pneumonia (Hydrochloric acid)
Dermal Skin corrosion/irritation	No data available (Hydrochloric acid) Rabbit (Hydrochloric acid) Result: Causes burn
Serious eye damage/eye irritation	Rabbit (Hydrochloric acid) Result: Corrosive to eyes
Respiratory or skin sensitization	Did not cause sensitization on laboratory animals (Hydrochloric acid)
Germ cell mutagenicity Carcinogenicity	No data available (Hydrochloric acid)
	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Hydrochloric acid)
IARC	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity Specific target organ toxicity Single exposure	No data available (Hydrochloric acid)
	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. (Hydrochloric acid)
Repeated exposure	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration hazard	No aspiration toxicity classification (Hydrochloric acid)
Additional information RTECS	MW4025000
Inhalation of vapors may cause:, burning sensation, Cough, wheezing, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema (Hydrochloric acid)	



\*\*To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.\*\*

## SECTION 12 – ECOLOGICAL INFORMATION

Toxicity	
Toxicity to fish	LC50 - Lepomis macrochirus (Bluegill) - 24.6 mg/l - 96 h (Hydrochloric acid)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 4.91 mg/l - 48 h (Hydrochloric acid)
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effect	May be harmful to aquatic organisms due to the shift of the pH. Do not empty into drains.

## SECTION 13 – DISPOSAL CONSIDERATIONS

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### Contaminated packaging

Dispose of as unused product.

## SECTION 14 – TRANSPORT INFORMATION

### DOT (US)

UN number	1789
Class	8
Packing group	II
Proper shipping name	Hydrochloric acid
Poison Inhalation Hazard	No

### IMDG

UN number	1789
Class	8 P

Shipping group	II E
MS-No	F-A, S-B
Proper shipping name	HYDROCHLORIC ACID

**IATA**

UN number:	1789
Class	8
Packing group	II
Proper shipping name	Hydrochloric acid

**SECTION 15 – REGULATORY INFORMATION**

SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	
The following components are subject to reporting levels established by SARA Title III, Section 313: Hydrochloric acid	CAS No. 7647-01-0
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right To Know Components	
Hydrochloric acid	CAS No. 7647-01-0
Pennsylvania Right To Know Components	
Water	CAS No. 7732-18-5
Hydrochloric acid	CAS No. 7647-01-0
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer birth defects, or any other reproductive harm.

**SECTION 16 – OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3.**

Eye Dam.	Serious eye damage
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
Met. Corr.	Corrosive to metals
Skin Corr.	Skin corrosion
STOT SE	Specific target organ toxicity - single exposure
HMIS Rating	
Health hazard	3

Chronic Health Hazard	
Flammability	0
Physical Hazard	0
NFPA Rating	
Health hazard	3
Fire Hazard	0
Reactivity Hazard	0

**Further information:**

This information has been prepared by Advanced BioMatrix, Inc. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Advanced BioMatrix, Inc. and its Affiliates shall not be held liable for any damages resulting from handling or from contact with the above product. See [www.advancedbiomatrix.com](http://www.advancedbiomatrix.com) for additional terms and conditions of sale.

**Preparation Information:**

Advanced BioMatrix, Inc.  
1-800-883-8220