

Create Date: 2015-10-19 00:00:00/ Revision Date: 2018-08-24 01:00:00/ Print Date: 2019-10-29

SECTION 1: COMPANY AND PRODUCT INFORMATION

1.1 Product identifiers

Product name : Hydrochloric Acid 37%
Product code : 40800056
CAS number : 7647-01-0
Synonyms : Not Available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : For research and laboratory use only.

1.3 Details of the supplier of the safety data sheet

Address : Genelinx International Inc, dba bioWORLD
4150 Tuller Rd. Suite 228
Dublin, OH 43017
Email : info@buffersandreagents.com
Phone : 614-792-8680, Toll free: 1-888-bio-PLUS
Fax : 614-792-8685

1.4 Emergency telephone number

Emergency phone : 1-888-bio-PLUS

SECTION 2: HAZARDS IDENTIFICATION


2.1 Classification of substance or mixture

Acute Toxicity, Oral (Category 4), H302
Skin Corrosion/Irritation (Category 1), H314
Serious Eye Damage/Eye Irritation (Category 1), H318
Specific Target Organ Toxicity, Single Exposure, Respiratory Tract (Category 3), H335

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

Acute Toxicity, Oral (Category 4), H302
Skin Corrosion/Irritation (Category 1), H314
Serious Eye Damage/Eye Irritation (Category 1), H318
Specific Target Organ Toxicity, Single Exposure, Respiratory Tract (Category 3), H335

2.3 Label elements and precautionary statements

Pictogram : 

Signal word : Danger

Hazard statement(s)	: H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage. H335 - May cause respiratory irritation.
Precautionary statement(s)	: P260 - Do not breathe mist or vapor. P264 - Wash thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+330+331 - If swallowed: Rinse mouth. Do NOT induce vomiting. P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+351+338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician. P363 - Wash contaminated clothing before reuse. P403+233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.4 Hazards not otherwise classified (HNOC) or not covered by GHS

No unclassified hazards known.

2.5 NFPA Rating

Health hazard	: 3
Fire hazard	: 0
Reactivity hazard	: 0

2.6 HMIS Rating

Health hazard	: 3
Chronic health hazard	: -
Reactivity hazard	: 0
Flammability	: 0
Physical hazard	: 0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance	CAS#	EC#	Concentration
Hydrogen Chloride M.F: HCl M.W: 36.46 g/mol	7647-01-0	231-595-7	37%
Water M.F: H ₂ O M.W: 18.02 g/mol	7732-18-5	231-791-2	63%

3.2 Hazardous components & classification

Acute Tox. Oral 4; Skin Corr. 1; Eye Dam. 1; STOT SE Resp. Irr. 3; H302; H314; H318; H335

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician if symptoms are severe or persistent. Provide this data sheet to medical personnel. If product is spilled or leaked, evacuate area.

In case of inhalation

If inhaled, move person to fresh air and monitor breathing. If not breathing, give artificial ventilation. Consult a physician if symptoms are severe or persistent.

In case of skin contact

Immediately wash with excess soap and water. If spilled on clothing, remove all affected clothing. Consult a physician if symptoms are severe or persistent.

In case of eye contact

Flush eyes with water or eye wash solution as a precaution for 15 minutes. Consult a physician if symptoms are severe or persistent.

In case of ingestion

Only induce vomiting if recommended by medical personnel. If subject is unconscious, do not give anything by mouth. If conscious, rinse mouth with water. Consult a physician if symptoms are severe or persistent.

4.2 Most important symptoms and effects, both acute and delayed

All known important symptoms are described in Section 2 and/or Section 11. No other important symptoms to report.

4.3 Indication of any immediate medical attention and special treatment needed

No special treatment indicated. Provide treatment in accordance with exhibited systems.

SECTION 5: FIREFIGHTING MEASURES

5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, and carbon dioxide extinguishers are suitable.

5.2 Unsuitable extinguishing media

Do NOT use a water jet.

5.3 Special hazards arising from the substance

Irritating, corrosive and/or toxic gases or fumes will be released during a fire.

5.4 Advice for firefighters

Wear protective gear, such as self-contained breathing apparatus, if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide suitable ventilation. Use any necessary personal protective equipment. Avoid contact with skin and eyes, and avoid creation and inhalation of vapor or dust. Keep all unnecessary personnel away.

For personal protection see section 8

6.2 Environmental precautions

Prevent product from entering public sewers and waterways.

6.3 Methods and material for containment and cleaning up

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

For proper disposal see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide suitable ventilation. Wear any necessary personal protective equipment.

For precautions see section 2

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Store upright, closed container in arid, ventilated environment.

Incompatible materials : Bases, amines, alkali metals, metals, permanganates, e.g. potassium permanganate, fluorine, metal acetylides, and hexalithium disilicide are incompatible with this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Hydrochloric Acid; CAS No.: 7647-01-0

C: 7 mg/m³, 5 ppm Basis: USA. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000).

C: 2 ppm. Basis: USA. ACGIH Threshold Limit Values.

C: 7 mg/m³, 5 ppm. Basis: USA. NIOSH Recommended Exposure Limits.

8.2 Engineering controls

Follow good industrial hygiene and safety practices when handling product.

8.3 Personal protective equipment

Eye/face protection : Use only government-approved safety glasses with side-shields.

Skin protection : Use gloves when handling product. Inspect gloves before use to ensure suitability for use. Remove without exposing skin to the gloves outer surface. Discard used gloves according to all pertinent laws and/or current good practices (cGXP). Wash hands with soap and water.

- Body protection : Wear appropriate clothing. Ensure clothing is in good condition, with no holes or tears. When selecting clothing, consider the concentration and amount of substance to be handled.
- Respiratory protection : Use only approved respirators and components which comply with CDC and NIOSH (US) or CEN (EU) regulations. Required only when vapors or aerosols are created.
- Control of environmental exposure : Prevent product from entering the environment, especially through public sewers or waterways.
- General hygiene considerations : Comply with general industrial hygiene practice guidelines.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance : Clear, Colorless to Faintly Yellow
- b) Physical states : Liquid
- c) Odor : Pungent
- d) Odor threshold : Not available
- e) Melting point : -74°C
- f) Boiling point range : 109°C (20% HCl)
- g) pH : 1.01 (0.1 N Solution)
- h) Density : 1.18 g/cm³
- i) Flash point : Not available
- j) Evaporation rate : Not available
- k) Flammability : Not available
- l) Upper/lower flammability or explosive limits: : Not available
- m) Vapor pressure : 253.3 hPa (190 mmHg)
- n) Vapor density : Not available
- o) Relative density : Not available
- p) Water solubility : Miscible in Water
- q) Partition coefficient:n-octanol/water : Not available
- r) Autoignition temperature : Not available
- s) Decomposition temperature : Not available
- t) Kinematic viscosity : Not available
- u) Explosive properties : Not explosive
- v) Oxidizing properties : Not Oxidizing
- w) Solubility in other solvents : Not available
- x) Surface tension : Not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Product reacts violently with strong alkaline substances. Product may react with reducing agents.

10.2 Chemical stability

Product is stable when stored and used as recommended.

10.3 Stability note(s)

No special or unusual instability known.

10.4 Polymerization

No known polymerization.

10.5 Possibility of hazardous reactions

No hazardous reactions are known.

10.6 Incompatible materials

Bases, amines, alkali metals, metals, permanganates, e.g. potassium permanganate, fluorine, metal acetylides, and hexalithium disilicide are incompatible with this product.

10.7 Hazardous decomposition products

Hydrogen chloride can form if fire occurs.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

LD50 Oral : Rabbit - 900 mg/kg

LD50 Dermal : Mouse - 3,916 mg/kg

LC50 Inhalation : Mouse - 2,995 mg/l (1 hour)

11.2 Skin corrosion/irritation

Causes severe skin burns.

11.3 Serious eye damage/eye irritation

Causes serious eye damage.

11.4 Respiratory or skin sensitization

No sensitization data available.

11.5 Germ cell mutagenicity

No mutagenicity data available.

11.6 Carcinogenicity

IARC : 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid).

ACGIH : Product and components are not regulated by the ACGIH.

NTP : Product and components are not regulated by the NTP.

OSHA : Product and components are not regulated by OSHA.

11.7 Reproductive toxicity

No reproductive toxicity data available.

11.8 Specific target organ toxicity – single exposure

May cause respiratory irritation.

11.9 Specific target organ toxicity – repeated exposure

No specific organ toxicity data available.

11.10 Aspiration hazard

No aspiration hazard data available.

11.11 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No ecological toxicity data available.

12.2 Aquatic toxicity

Species: Bluegill (*Lepomis macrochirus*). Exposure: 96 hours. Results: LC50 24.6 mg/l.

Species: Water Flea (*Daphnia magna*). Exposure: 48 hours. Results: EC50 4.91 mg/l.

12.3 Persistence and degradability

No persistence/degradability data available.

12.4 Bioaccumulative potential

No bioaccumulation data available.

12.5 Mobility in soil

No soil mobility data available.

12.6 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment is not required/was not conducted.

12.7 Other adverse effect

May be harmful to aquatic organisms due to the shift of the pH.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product

Neutralize with soda ash/slaked lime and discharge to sewer with lots of water.

13.2 Packaging

Empty containers must be taken to an approved waste handling facility for disposal.

13.3 Recommendation

Disposal must be made according to official regulations.

SECTION 14: TRANSPORTATION INFORMATION

14.1 DOT (US)

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

14.2 IMDG

UN#1789
Class: 8
Packing group: II
EMS-No: F-A, S-B
Proper shipping name : Hydrochloric acid

14.3 IATA

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

SECTION 15: REGULATORY INFORMATION

15.1 SARA

SARA 302: This product and components are subject to the reporting requirements of SARA Title III, Section 302:
Hydrogen Chloride CAS No.: 7647-01-0
SARA 313: This product contains components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313:
Hydrochloric Acid CAS No.: 7647-01-0
SARA 311/312: Acute Health Hazard

15.2 Clean water act (CWA)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):
Hydrochloric Acid CAS No.: 7647-01-0

15.3 Right to know components

Massachusetts : Hydrochloric Acid CAS No.: 7647-01-0

Pennsylvania : Hydrochloric Acid CAS No.: 7647-01-0

New Jersey : Hydrochloric Acid CAS No.: 7647-01-0

California : This product contains no chemicals which are known to the State of
proposition 65 California to cause cancer, or birth defects or other reproductive harm.
components

SECTION 16: OTHER INFORMATION

16.1 Disclaimer

This product is offered by Plantmedia for research, laboratory or further manufacturing use. Not for human use or consumption. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant-ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall buffersandreagents.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if buffersandreagents.com has been advised of the possibility of such damages.

16.2 Copyright

Copyright 2019 www.buffersandreagents.com. License granted to make paper copies for internal use only.

16.2 Preparation Information

Create Date: 2015-10-19 00:00:00/ Revision Date: 2018-08-24 01:00:00/ Print Date: 2019-10-29