

## SAFETY DATA SHEET

### Section 1. Chemical Product and Company Identification

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**Product Name :** Citrilow®  
**Product Type/Use :** Citric acid and hydrochloric acid in water  
**Supplier's Name :** Safe Foods Corporation  
**Address (Corporate Headquarters) :** 1501 E 8th Street  
North Little Rock, AR 72114  
**Telephone Number for Information :** (501) 758-8500  
**Emergency Telephone Number :** (800) 424-9300 (CHEMTREC)  
acct. CCN19424  
**SDS Revision Date :** 8/21/2017

### Section 2. Hazard(s) Identification

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#### GHS classification

Skin corrosion/irritation - Category 1B  
Serious eye damage/eye irritation - Category 1  
Specific target organ toxicity (single exposure) - Category 3 [Respiratory]

#### GHS label elements

##### Hazard pictograms/symbols



**Signal Word: DANGER**

#### Hazard Statements

H290: May be corrosive to metals  
H314: Causes severe skin burns and eye damage  
H335: May cause respiratory irritation.

#### Precautionary Statements

##### Prevention

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/clothing/eye/face protection

##### Response

P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.  
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: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+PP351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403+P233: Store in a well-ventilated place. Keep container tightly close.  
P234: Keep only in original container

### Section 3. Composition/Hazardous Ingredients

Component	CAS #	Wt. %
Hydrochloric Acid	7647-01-0	Citrilow™ is a proprietary blend of acids listed as GRAS by FDA for use as directed on processed food.
Citric Acid Solution	77-92-9	

### Section 4. First Aid Measures

- Eye contact** : Immediately flush eyes with water, while lifting the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek prompt medical attention if irritation develops or persists.
- Skin contact** : Wash off immediately with and plenty of water. Flush with large amounts of water for at least 15 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.
- Ingestion** : If victim is conscious and alert, give 1-2 glasses of water to drink. Do not induce vomiting without advice from poison control center/physician. If vomiting occurs spontaneously, keep head low so that stomach content does not get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Seek medical attention immediately.
- Inhalation** : Move the exposed person to fresh air at once. If breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If not breathing, properly trained personnel may assist affected person by performing artificial respiration. Seek prompt medical attention.
- Note to physicians** : Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Keep victim under observation.

### Section 5. Fire-Fighting Measures

- Suitable extinguishing media** : Use carbon dioxide, dry chemicals, alcohol foam, or water spray.
- Specific hazards** : May form toxic and corrosive fumes, such as, hydrogen chloride gas, under fire conditions.
- Special protective equipment for fire-fighters** : Wear a self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of the SDS.
- Conditions of Flammability** : Material may burn, but does not ignite readily.

### Section 6. Accidental Release Measures

- Small Spill** : Absorb liquid on vermiculite, floor absorbent or other absorbent inert material (e.g. dry sand, earth). Use neutralizing agent.
- Large Spill** : Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

## Section 7. Handling and Storage

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### Handling

Put on appropriate personal protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor, mist or dust. Avoid release to the environment. Use with adequate ventilation. Wash thoroughly after handling. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Storage

Store in accordance with local regulations. Store this material in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, and food and drink. Do not store in metal containers. Store away from alkalis and oxidizers. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect container(s) against physical damage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure Controls/Personal Protection

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### Engineering measures

Use process enclosures, local exhaust ventilation or other engineering controls sources of mist or vapor. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### Personal protective equipment

- Eye protection** : Wear safety glasses in compliance with OSHA regulations.
- Skin protection** : Wear resistant gloves such as: butyl rubber or neoprene gloves and appropriate protective clothing to prevent skin exposure.
- Respiratory protection** : Not required under normal conditions of use. If operations generate mist or if product is heated, wear a NIOSH-approved respirator selected by a technically qualified person for the specific work conditions. Follow respiratory protection program requirements (OSHA 1910.134 and ANSI Z88.2 requirements or European Standard EN 49) for all respirator use.

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH REL
Hydrochloric Acid	TWA: 2 ppm	TWA: 5ppm TWA: 7 mg/m <sup>3</sup>	TWA: 5ppm TWA: 7 mg/m <sup>3</sup>

## Section 9. Physical and Chemical Properties

Appearance	: Liquid
Color	: Colorless to light yellow
Odor	: Sweet/Pungent
Boiling Point	: >212°F
Vapor Pressure	: Not determined
Specific Vapor Density	: Not determined
Liquid Density	: 8.80 - 9.00 lbs/gal
% Volatiles	: Not determined
% VOC	: Not determined
Evaporation Rate	: > 1 (BuAc=1)
Physical Form	: Liquid
pH	: 1.00 -1.70 (5% in DI Water)
Viscosity	: Not determined
Freezing Point	: < 0°F
Solubility in Water	: Dispersible
Flashpoint	: >200°F (PMCC)

## Section 10. Stability and Reactivity

Chemical Stability	: Stable under normal conditions.
Condition to avoid	: Avoid contact with open flames and incompatible materials.
Hazardous Polymerization	: Product will not undergo hazardous polymerization.
Hazardous Decomposition	: Thermal decomposition may yield hydrogen chloride gas, carbon dioxide and carbon monoxide gases.
Materials to avoid	: Avoid bases, amines, acid anhydrides, metals, organic compounds sulfides and elevated temperatures above 65.55°C (150°F).

## Section 11. Toxicological Information

### Acute toxicity

Product/ingredient	Results	Species	Dose	Exposure
Hydrochloric Acid	LD50 Oral	Rat	900 mg/kg	-
	LC50 Inhalation	Mouse	20487 mg/m <sup>3</sup>	5 min
	LC50 Inhalation	Rat	60938 mg/m <sup>3</sup>	5 min
Critic Acid	LD50 Oral	Mouse	5,040 mg/kg	-
	LD50 Oral	Rat	3 gm/kg	-

### Irritation/ Corrosion

Product/ingredient	Results	Species	Dose	Exposure
Critic Acid	Eye Irritation	Rabbit	750 µg/24 Hr.	Severe
	Skin Irritation	Rabbit	500 mg/24 Hr.	Mild

### Sensitization

Not available.

### Aspiration hazard

Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hydrochloric Acid	Category 3	-	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Not available.

**Mutagenicity**

Not available.

**Reproductive toxicity**

Not available.

**Potential chronic health effects**

Not available.

**Section 12. Ecological Information**

**Aquatic Ecotoxicity**

**Hydrochloric Acid**

Fish: Bluefish/Sunfish: 3.6 mg/L; 48 Hr; Lethal (Unspecified)

Fish: Bluefish/Sunfish: LD50; 96 Hr; pH 3.0-3.5

**Chemical Fate:**

Not available.

**Section 13. Disposal Consideration**

**Waste from residues / unused products** : The generation of waste should be avoided or minimized whenever possible. Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Contaminated packaging** : Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

**Section 14. Transport Information**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Additional information
DOT Classification	1760	Corrosive Liquid, N.O.S. (Hydrochloric Acid)	8	II	-
TDG Classification	1760	Corrosive Liquid, N.O.S. (Hydrochloric Acid)	8	II	-
IMDG Class	1760	Corrosive Liquid, N.O.S. (Hydrochloric Acid)	8	II	-
IATA-DGR Class	1760	Corrosive Liquid, N.O.S. (Hydrochloric Acid)	8	II	-

PG\*: Packing group

**Labels Required:**



\*Labels must be on the external part of a shipped container and must meet the DOT requirements set forth in 49 CFR 172, Subpart E.

## Section 15. Regulatory Information

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### Environmental Protection Agency

SARA Title III, Section 313 (Toxic Chemicals)	: No
SARA 304 Reportable Quantity (RQ)	: Hydrochloric Acid 5000 lbs
SARA 302 Threshold Planning Quantity (TPQ)	: Hydrochloric acid (CAS # 7647-01-0)
SARA Title III, Section 311/312(Hazard Categories)	
Acute	: Yes
Chronic	: No
Ignitable	: No
Reactive	: Yes
Sudden Release of Pressure	: No

### CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980:

Reportable Quantity (RQ)	: 5000 lbs
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### Other Federal Regulations

Clean Air Act, Sections	: Hydrochloric acid (CAS # 7647-01-0)
Clean Water Act, Sections	: No

### International Regulations

Canadian DSL/EINECS	: Hydrochloric acid (CAS # 7647-01-0) : Citric acid (CAS # 77-92-9)
Canadian WHMIS	: E and D2B

### State and Local Regulations

California Proposition 65	: None
Massachusetts Right to Know	: Hydrochloric acid (CAS # 7647-01-0)
Pennsylvania Right to Know	: Hydrochloric acid (CAS # 7647-01-0)
New Jersey Right to Know	: Hydrochloric acid (CAS # 7647-01-0)
Rhode Island Right to Know	: Hydrochloric acid (CAS # 7647-01-0)

## Section 16. Other Information

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### HMIS Rating

Health	: 2
Flammability	: 0
Reactivity	: 1
PPE	: X

**Notes** The PPE rating depends on circumstances of use. See Section 8 for recommended PPE. The Hazardous Material Information System(HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

**NSF** : Not available

**FDA/USDA/GRAS** : Not available

**Kosher** : This product has not been evaluated for Kosher approval.

**FIFRA** : Not available

**Other** : None

**Abbreviations**

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept.
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Safety And Health Administration
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Quality Assurance Department

**Disclaimer of Liability**

The information herein is presented in good faith and believed to be correct as of the date hereof. However, Safe Foods Corporation makes no representation as to completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purpose or of any other nature with respect to the product or to the information herein is made hereunder. Safe Foods Corporation shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or reliance upon information contained herein.