

# Scientific Documentation

## Hydrochloric Acid Solution, cGMP, 0.5 N, bioCERTIFIED (TM)

Not appropriate for regulatory submission.

Please visit [www.spectrumchemical.com](http://www.spectrumchemical.com) or contact Tech Services for the most up-to-date information contained in this information package.

Spectrum Chemical Mfg Corp  
769 Jersey Avenue  
New Brunswick, NJ 08901  
Phone 732.214.1300



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# Specification for Hydrochloric Acid Solution, cGMP, 0.5 N, bioCERTIFIED (TM) (H9802)

Item Number	H9802
Item	Hydrochloric Acid Solution, cGMP, 0.5 N, bioCERTIFIED (TM)
CAS Number	
Molecular Formula	
Molecular Weight	
MDL Number	
Synonyms	

Test	Specification	
	Min	Max
ASSAY (w/w)	0.485	0515N
RESIDUE ON IGNITION (NF)		80 ppm
RESIDUE ON EVAPORATION (EP)		100 ppm
BROMIDE OR IODIDE (NF)		TO PASS TEST
FREE BROMINE OR CHLORINE (NF)		TO PASS TEST
FREE CHLORINE (EP)		4 ppm
Sulfate (SO <sub>4</sub> , NF)		TO PASS TEST
SULFATE (SO <sub>4</sub> , EP)		20 ppm
SULFITE (SO <sub>3</sub> , NF)		TO PASS TEST
ELEMENTAL IMPURITIES		AS REPORTED
MICROBIAL LIMITS:		
TAMC		1000 CFU/g
TYMC		100 CFU/g
ENDOTOXINS		10 IU/g
RESIDUAL SOLVENTS		AS REPORTED

## *Spectrum Chemical Mfg Corp*

**Corporate Headquarters:** West Coast Facility:  
 769 Jersey Ave. 14422 S. San Pedro St.  
 New Brunswick, NJ 08901 Gardena, CA 90248

***Spectrum Chemical Mfg Corp***

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***Corporate Headquarters:    West Coast Facility:***

732.214.1300

310.516.8000

# Certificate Of Analysis

Item Number	H9802	Lot Number	4MD0025
Item	Hydrochloric Acid Solution, cGMP, 0.5 N, bioCERTIFIED (TM)		

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (w/w)	0.485	0515N	0.492 N
RESIDUE ON IGNITION (NF)		80 ppm	50 PPM
RESIDUE ON EVAPORATION (EP)		100 ppm	50 PPM
BROMIDE OR IODIDE (NF)		TO PASS TEST	PASSES TEST
FREE BROMINE OR CHLORINE (NF)		TO PASS TEST	PASSES TEST
FREE CHLORINE (EP)		4 ppm	<4 PPM
Sulfate (SO <sub>4</sub> , NF)		TO PASS TEST	PASSES TEST
SULFATE (SO <sub>4</sub> , EP)		20 ppm	<20 PPM
SULFITE (SO <sub>3</sub> , NF)		TO PASS TEST	PASSES TEST
ELEMENTAL IMPURITIES		AS REPORTED	COMPLIES WITH STANDARD
MICROBIAL LIMITS:			.
TAMC		1000 CFU/g	<100 CFU/G
TYMC		100 CFU/g	<50 CFU/G
ENDOTOXINS		10 IU/g	<9.96 EU/G
RESIDUAL SOLVENTS		AS REPORTED	NO RESIDUAL SOLVENTS PRESENT
DATE OF MANUFACTURE			17-MAR-2023
EXPIRATION DATE			17-MAR-2025

Certificate of Analysis Results Entered By:

TDAO  
Tiffany DAO  
21-JUN-23 05:50:30

Spectrum Chemical Mfg Corp  
777 Jersey Avenue  
New Brunswick 08901 NJ



Certificate of Analysis Results Approved By:

AWILLIAMS  
Allison Williams  
21-JUN-23 08:34:33

**Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.**

# SAFETY DATA SHEET

# spectrum®



Revision date 02-November-2020

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** HYDROCHLORIC ACID SOLUTION, 0.5 N SOLUTION, NF, EP

### Other means of identification

**Product Code(s)** H9802

**UN/ID no** UN1789

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** No information available

**Restrictions on use** No information available

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

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Causes severe skin burns and eye damage  
May cause respiratory irritation



**Appearance** Clear

**Physical state** Liquid

**Odor** Disagreeable

**Precautionary Statements - Prevention**

Do not breathe dusts or mists

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor

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 or doctor

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Immediately call a POISON CENTER or doctor

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up.

Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

No information available.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	98.2	*
Hydrogen chloride	7647-01-0	1.8	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

**Description of first aid measures**

**General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel



should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.

<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).

#### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Burning sensation.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
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### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	none.
<b>Sensitivity to static discharge</b>	none.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
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**Methods for cleaning up**

Pick up and transfer to properly labeled containers.

## 7. Handling and storage

**Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

## 8. Exposure controls/personal protection

**Control parameters****Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen chloride 7647-01-0	No data available	5 ppm Ceiling 7 mg/m <sup>3</sup> Ceiling	50 ppm IDLH

**Appropriate engineering controls****Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Tight sealing safety goggles. Face protection shield.

**Hand protection**

Wear suitable gloves. Impervious gloves.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	Clear
Color	colorless
Odor	Disagreeable
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Acidic	None known
Melting point / freezing point	no data available	None known
Boiling point / boiling range	no data available	None known
Flash point	no data available	None known
Evaporation rate	no data available	None known
Flammability (solid, gas)	no data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	no data available	None known
Relative density	1.011	None known
Water solubility	Easily soluble in cold water Easily soluble in hot water	None known
Solubility(ies)	Soluble in diethyl ether	None known
Partition coefficient	No data available	None known
Autoignition temperature	no data available	None known
Decomposition temperature		None known
Kinematic viscosity	no data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	No information available	

**10. Stability and reactivity**

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	Acids. Bases. Oxidizing agent.
Hazardous decomposition products	None known based on information supplied.

**11. Toxicological information****Information on likely routes of exposure****Product Information****Inhalation**

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with

tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.

**Skin contact** Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.

**Ingestion** Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity**

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 13,222.20 mg/kg  
 ATEmix (inhalation-gas) 38,888.90 ppm  
 ATEmix (inhalation-dust/mist) 27.83 mg/l  
 ATEmix (inhalation-vapor) 166.70 mg/l

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	90 mL/kg ( Rat )	-	-
Hydrogen chloride 7647-01-0	238 - 277 mg/kg ( Rat )	5010 mg/kg ( Rabbit )	3120 ppm ( Rat ) 1 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes burns.  
**Serious eye damage/eye irritation** Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.  
**Respiratory or skin sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrogen chloride 7647-01-0	-	Group 3 - Not classifiable - Monograph 54 [1992]	-	-

**Legend**

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause respiratory irritation.  
**STOT - repeated exposure** No information available.  
**Target organ effects** respiratory system, Eyes, Skin.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrogen chloride 7647-01-0	-	282 mg/L LC50 Gambusia affinis 96 h 862 mg/L LC50 Leuciscus idus	-	<56 mg/L LC50 Daphnia magna 72h

### Persistence and degradability

No information available.

### Bioaccumulation

Inherently biodegradable.

### Other adverse effects

No information available.

## 13. Disposal considerations

### Waste treatment methods

### Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

### Contaminated packaging

Do not reuse empty containers.

## 14. Transport information

### DOT

UN/ID no UN1789  
Proper Shipping Name: Hydrochloric acid solution  
Hazard class 8  
Packing group: II  
Special Provisions 386, A3, B3, B15, IB2, N41, T8, TP2  
Marine Pollutant Severe Marine Pollutant  
Description: UN1789, Hydrochloric acid solution, 8, II  
Emergency Response Guide Number 157

### TDG

UN-No: UN1789  
Proper Shipping Name: Hydrochloric acid solution  
Hazard class 8  
Packing Group: II  
Description: UN1789, Hydrochloric acid solution, 8, II

### MEX

UN-No UN1789  
Proper Shipping Name Hydrochloric acid solution  
Hazard class 8  
Packing Group II  
Description UN1789, Hydrochloric acid solution, 8, II

### ICAO (air)

UN-No: UN1789  
Proper Shipping Name: Hydrochloric acid solution  
Hazard class 8  
Packing Group: II  
Special Provisions A3

**Description:** UN1789, Hydrochloric acid solution, 8, II

**IATA**

**UN number** UN1789  
**Proper Shipping Name:** Hydrochloric acid solution  
**Transport hazard class(es)** 8  
**Packing group** II  
**Description:** UN1789, Hydrochloric acid solution, 8, II

**IMDG**

**UN number** UN1789  
**Proper shipping name** Hydrochloric acid solution  
**Transport hazard class(es)** 8  
**Packing group** II  
**EmS-No** F-A, S-B  
**Marine pollutant** NP1  
**Description** UN1789, Hydrochloric acid solution, 8, II

**RID**

**UN number** UN1789  
**Proper Shipping Name:** Hydrochloric acid solution  
**Transport hazard class(es)** 8  
**Packing group** II  
**Classification code** C1  
**Special Provisions** 520  
**Description:** UN1789, Hydrochloric acid solution, 8, II  
**Labels** 8

**ADR**

**UN number** 1789  
**Proper Shipping Name:** Hydrochloric acid solution  
**Transport hazard class(es)** 8  
**Packing group** II  
**Classification code** C1  
**Tunnel restriction code** (E)  
**Special Provisions** 520  
**Description:** 1789, Hydrochloric acid solution, 8, II, (E)  
**Labels** 8

**ADN**

**UN/ID No** UN1789  
**Proper shipping name** Hydrochloric acid solution  
**Transport hazard class(es)** 8  
**Packing Group** II  
**Classification code** C1  
**Special Provisions** 520  
**Description** UN1789, Hydrochloric acid solution, 8, II  
**Hazard label(s)** 8  
**Limited quantity (LQ)** 1 L  
**Equipment Requirements** PP, EP

## 15. Regulatory information

**International Inventories**

**TSCA** Complies

**DSL/NDSL** Complies

**EINECS/ELINCS** Complies

**ENCS** This product complies with ENCS:

**IECSC** This product complies with China:

**KECL** Complies

**PICCS** Complies

**AICS**

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Hydrogen chloride - 7647-01-0	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

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).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrogen chloride 7647-01-0	-	-	-	Present

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Hydrogen chloride 7647-01-0	5000 lb final RQ 2270 kg final RQ	-

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information****NFPA**

**Health hazards** 3

**Flammability** 0

**Instability** 0

Physical and chemical properties -

**HMIS**

Health hazards 3

Flammability 0

Physical hazards 0

Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision date** 02-November-2020

**Revision Note** No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**





**Certification of Compliance with current Good Manufacturing Practices**

Dear Valued Customer:

Spectrum Chemical Mfg Corp certifies that the following product(s) is produced, processed, packaged and held in compliance with current Good Manufacturing Practices (cGMP) in accordance with the applicable parts of 21 CFR, parts 210 and 211 of the Code of Federal Regulations.

Catalog Number	Product Name
H9802	Hydrochloric Acid Solution, 0.5 N Solution, NF, EP, bioCERTIFIED™

Spectrum is an FDA registered and inspected Drug Establishment. Our United States Food and Drug Administration (USFDA) Registration numbers are as follows:

Spectrum-Gardena, CA: 2020632  
Spectrum-New Brunswick, NJ: 2246824

Thank you for your interest in Spectrum products. If we may be of further assistance, please feel free to contact the Quality Assurance department at 310-516-8000 or via email at [qualityassurance@spectrumchemical.com](mailto:qualityassurance@spectrumchemical.com)

Sincerely,

Oralia Chavez  
Quality Assurance Specialist



## **H9802, Hydrochloric Acid Solution, 0.5 N Solution, NF, EP, bioCERTIFIED™**

### **Source Statement**

The above mentioned catalog item is manufactured by chemical synthesis. No animal or plant derived products are used in the manufacturing process.

### **BSE/TSE Statement**

The above mentioned catalog item does not contain nor is manufactured using any animal derived products and is therefore, BSE/TSE free.

### **Allergen Statement**

The above mentioned catalog item does not contain any of the following:

- Milk
- Egg
- Fish
- Shellfish
- Tree Nuts
- Wheat
- Peanuts
- Soy
- Cereals containing Gluten
- Celery
- Mustard
- Sesame Seed
- Corn
- Latex
- Sulfites > 10 ppm

### **EU Fragrance Allergen Statement**

The above mentioned catalog item does not contain any of the 26 EU fragrance allergens listed in Annex III lines 67-92. These substances are not intentionally added to the above mentioned catalog item and therefore are not expected to be present.

### **GMO Statement**

The above mentioned catalog item is manufactured without the use of genetically modified organisms and is therefore GMO free.

## **Melamine Statement**

The above mentioned catalog does not use or add melamine to the manufacturing process and is considered melamine-free.

## **Nitrosamine Statement**

Based on knowledge of the manufacturing process, nitrosamine impurities are not known or suspected to be present in this material.

## **Animal Testing Statement**

The above mentioned catalog item has not been tested on animals.

## **Organic Compliance Statement**

The above mentioned catalog item has not been produced using GMOs, irradiation, ethylene oxide (EtO) or sewage sludge.

## **Shelf Life Statement**

The above mentioned catalog item is typically assigned a shelf life of 24 months from the date of manufacture. The actual assigned shelf life for any specific lot should be referenced on the Certificate of Analysis.

## **Other Chemicals Statement**

Spectrum does not have any reason to suspect the above mentioned catalog item contains any of the following chemicals. This product does not come into contact with these chemicals during packaging or storage:

- |                     |                 |
|---------------------|-----------------|
| • Aflatoxins        | • Parabens      |
| • Antibiotics       | • Pesticides    |
| • Bisphenol A (BPA) | • Phthalates    |
| • CMR Substances    | • Preservatives |



**RE: Elemental Impurities - Hydrochloric Acid Solution, 0.5 N Solution, NF, EP, bioCERTIFIED™ (Cat# H9802)**

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

The above mentioned material complies with the USP<232>, <233> Elemental Impurities and the ICH Q3D Elemental Impurities Guideline. No Class 1, Class 2A, Class 2B or Class 3 elemental impurities are likely to be present. These substances are not used in the production process, are not intentionally added or known to be present in the above mentioned material.

This information is subject to change and is intended for risk assessment only. It is responsibility of the end user to evaluate suitability of any chemical for the intended use as well as to assess compound-specific limits of daily intake of metal impurities. For lot-specific information, please refer to the respective Certificate of Analysis.

If you have any further questions, please contact us by telephone at 1(800)772-8786 Option 2, or by email at [TechServices@spectrumchemical.com](mailto:TechServices@spectrumchemical.com).

Sincerely,

Technical Services  
Spectrum Chemical Mfg. Corp.

This document has been produced electronically and is valid without a signature.

CORPORATE HEADQUARTERS

769 Jersey Avenue

New Brunswick, NJ 08901

PHONE 732.214.1300

FAX 732.246.7132

WEST COAST FACILITY

14422 South San Pedro Street

Gardena, California 90248

PHONE 310.516.8000

FAX 310.516.9843



**RE: Residual Solvents - Hydrochloric Acid Solution, 0.5 N Solution, NF, EP, bioCERTIFIED™ (Cat# H9802)**

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

The above mentioned catalog item complies with the requirements of the USP <467> Residual Solvents and the ICH Q3C Residual Solvents Guideline. No Class 1, Class 2, Class 3 or other solvents are used or produced in the manufacture of this product.

For lot-specific information, please refer to the respective Certificate of Analysis.

If you have any further questions, please contact us by telephone at 1(800)772-8786 Option 2, or by email at [TechServices@spectrumchemical.com](mailto:TechServices@spectrumchemical.com).

Sincerely,

Technical Services  
Spectrum Chemical Mfg. Corp.

This document has been produced electronically and is valid without a signature.

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## Label Information

The Spectrum label presents technical and safety information in an easily understood format. Our technical specialists stay abreast of the latest requirements of the Globally Harmonized System for Classification and Labelling of Chemicals (GHS), as well as the Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA) and other government regulatory agencies in order to ensure compliance, accuracy and concise hazard communication.

**A** **DANGER**

• Causes severe skin burns and eye damage •  
• May be corrosive to metals.

• Wear protective gloves, protective clothing, eye protection, face protection • Do not breathe mist or vapors • Wash face, hands and any exposed skin thoroughly after handling • Keep only in original container • Absorb spillage to prevent material damage.

**FIRST AID:** Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting or give baking soda. If conscious, give water or milk. Never give anything by mouth to an unconscious person.

**L** **KEEP FROM CHILDREN**

**spectrum®**  
CHEMICAL MFG CORP

**H9802** **F** **4 L**

**Hydrochloric Acid**  
**Solution**

**0.5 N Solution**

NF, EP, bioCERTIFIED™

**CAUTION:** For manufacturing, processing or repacking.  
**Read and understand the label and Safety Data Sheet (SDS) prior to use.**

DOT: UN1789, Hydrochloric acid, solution, 8, PG II

**Chemical Emergency: (800)424-9300**

www.SpectrumChemical.com

**K** **Components:**

Water..... CAS 7732-18-5  
Hydrochloric Acid..... CAS 7647-01-0

**Assay (w/w)**.....0.485-0515N

**MAXIMUM LIMITS**

Residue on Ignition (NF)..... 80 ppm  
Residue on Evaporation (EP)..... 100 ppm  
Bromide or Iodide (NF)..... To pass test  
Free Bromine or Chlorine (NF)..... To pass test  
Free Chlorine (EP)..... 4 ppm  
Sulfate (SO<sub>4</sub>, NF)..... To pass test  
Sulfate (SO<sub>4</sub>, EP)..... 20 ppm  
Sulfite (SO<sub>3</sub>, NF)..... To pass test  
Elemental Impurities..... As reported  
Residual Solvents..... To pass test  
Microbial Limits:

TAMC..... 1000 CFU/g  
TYMC..... 100 CFU/g  
Endotoxins..... 10 IU/g

**M** **Lot No. 062233**

**SPECTRUM CHEMICAL MFG. CORP.**

**Gardena, CA 90248 • New Brunswick, NJ 08901**

- |   |   |   |
|---|---|---|
| <p><b>A</b> Bar Code</p> <p><b>B</b> GHS Hazard Pictograms</p> <p><b>C</b> Warning, Safety Data and Precautionary Information</p> <p><b>D</b> Product Catalog Number</p> <p><b>E</b> Item Name, Form, Grade</p> <p><b>F</b> Size/Quantity</p> | <p><b>G</b> Chemical Abstracts Service (CAS) Registry Number</p> <p><b>H</b> Caution Information</p> <p><b>I</b> DOT Shipping Information</p> <p><b>J</b> Toll-Free 24-Hour Chemical Emergency Telephone Number</p> | <p><b>K</b> Empirical Formula, Formula Weight and Technical Specifications Panel</p> <p><b>L</b> Expiration Information</p> <p><b>M</b> Lot Number</p> <p><b>N</b> Kosher Certified by Kosher Supervision of America (KSA).</p> <p><b>O</b> Storage Color Band</p> <p><b>P</b> Halal Certified by IFANCA</p> <p><b>Q</b> bioCertified</p> |
|---|---|---|

This color-coded band indicates the hazard most likely to be posed by that material under storage conditions. The criteria used to assign band colors have been established by the Storage Code working group of the Society for Chemical Hazard Communication (SCHC). It is recommended that like colors be stored together, unless otherwise stated, based on the color codes indicated to the right. However, it is the responsibility of the customer to check with their local fire department for possible conflicts with our recommendations when storing hazardous chemicals.

### Spectrum Chemical Mfg Corp

**Corporate Headquarters:**  
769 Jersey Ave.  
New Brunswick, NJ 08901  
732.214.1300

**West Coast Facility:**  
14422 S. San Pedro St.  
Gardena, CA 90248  
310.516.8000

- YELLOW:** Oxidizer
- RED:** Flammable
- GREEN:** General Storage
- BLUE:** Health Hazard
- WHITE:** Corrosive