

# Scientific Documentation

## Sulfuric Acid, NF

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 Sulfuric Acid, NF (S1731)

|                   |                                |
|-------------------|--------------------------------|
| Item Number       | S1731                          |
| Item              | Sulfuric Acid, NF              |
| CAS Number        | 7664-93-9                      |
| Molecular Formula | H <sub>2</sub> SO <sub>4</sub> |
| Molecular Weight  | 98.08                          |
| MDL Number        |                                |
| Synonyms          |                                |

| Test                  | Specification         |         |
|-----------------------|-----------------------|---------|
|                       | Min                   | Max     |
| APPEARANCE            |                       |         |
| ASSAY (by wt.)        | 95.0                  | 98.0 %  |
| RESIDUE ON IGNITION   |                       | 0.005 % |
| CHLORIDE (Cl)         |                       | 50 ppm  |
| ARSENIC (As)          |                       | 1 ppm   |
| ELEMENTAL IMPURITIES: |                       |         |
| BARIUM (Ba)           | AS REPORTED           |         |
| CHROMIUM (Cr)         | AS REPORTED           |         |
| REDUCING SUBSTANCES   | SOLUTION REMAINS PINK |         |
| IDENTIFICATION        | POSITIVE FOR SULFATE  |         |
| EXPIRATION DATE       |                       |         |
| DATE OF MANUFACTURE   |                       |         |
| MONOGRAPH EDITION     |                       |         |
| RESIDUAL SOLVENTS:    | AS REPORTED           |         |

### *Spectrum Chemical Mfg Corp*

|                                |                             |
|--------------------------------|-----------------------------|
| <b>Corporate Headquarters:</b> | <b>West Coast Facility:</b> |
| 769 Jersey Ave.                | 14422 S. San Pedro St.      |
| New Brunswick, NJ 08901        | Gardena, CA 90248           |
| 732.214.1300                   | 310.516.8000                |

# Certificate Of Analysis

|                   |                                |                  |           |
|-------------------|--------------------------------|------------------|-----------|
| Item Number       | S1731                          | Lot Number       | 1NB0173   |
| Item              | Sulfuric Acid, NF              | CAS Number       | 7664-93-9 |
| Molecular Formula | H <sub>2</sub> SO <sub>4</sub> | Molecular Weight | 98.08     |

| TEST                  | SPECIFICATION         |         | RESULT                          |
|-----------------------|-----------------------|---------|---------------------------------|
|                       | MIN                   | MAX     |                                 |
| APPEARANCE            |                       |         | CLEAR COLORLESS LIQUID          |
| ASSAY (by wt.)        | 95.0                  | 98.0 %  | 96.3 %                          |
| RESIDUE ON IGNITION   |                       | 0.005 % | <0.001 %                        |
| CHLORIDE (Cl)         |                       | 50 ppm  | <50 ppm                         |
| ARSENIC (As)          |                       | 1 ppm   | <1 ppm                          |
| ELEMENTAL IMPURITIES: |                       |         | NO ELEMENTAL IMPURITIES PRESENT |
| REDUCING SUBSTANCES   | SOLUTION REMAINS PINK |         | SOLUTION REMAINS PINK           |
| IDENTIFICATION        | POSITIVE FOR SULFATE  |         | POSITIVE FOR SULFATE            |
| EXPIRATION DATE       |                       |         | 26-FEB-2028                     |
| DATE OF MANUFACTURE   |                       |         | 27-FEB-2023                     |
| MONOGRAPH EDITION     |                       |         | (USP-NF) 2023                   |
| RESIDUAL SOLVENTS:    | AS REPORTED           |         | NO RESIDUAL SOLVENTS PRESENT    |

Certificate of Analysis Results Entered By:

HBERMUDEZ  
Hernan Bermudez  
20-FEB-24 11:41:22

Certificate of Analysis Results Approved By:

SHANSEN  
Selin Hansen  
22-FEB-24 11:32:02

Spectrum Chemical Mfg Corp  
14422 South San Pedro Street  
Gardena 90248 CA



**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.**

The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

# SAFETY DATA SHEET

# spectrum®



Revision date 31-May-2022

Revision Number 4

## 1. Identification

### Product identifier

**Product Name** SULFURIC ACID, NF

### Other means of identification

**Product Code(s)** S1731

**UN/ID no** UN1830

**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

|   |                           |
|---|---------------------------|
| Acute toxicity - Inhalation (Gases)       | Category 2                |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 2                |
| Skin corrosion/irritation                 | Category 1 Sub-category A |
| Serious eye damage/eye irritation         | Category 1                |
| Carcinogenicity                           | Not classified            |
| Corrosive to metals                       | Category 1                |

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

### Hazard statements

Fatal if inhaled

Causes severe skin burns and eye damage  
May cause cancer  
May be corrosive to metals



**Appearance** Clear

**Physical state** Liquid

**Odor** No information available

#### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear respiratory protection  
Wash face, hands and any exposed skin thoroughly after handling  
Keep only in original container

#### **Precautionary Statements - Response**

Specific treatment is urgent (see .? on this label)  
Immediately call a POISON CENTER or doctor  
Specific treatment (see .? on this label)  
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  
Absorb spillage to prevent material damage

#### **Precautionary Statements - Storage**

Store locked up.  
Store in a well-ventilated place. Keep container tightly closed  
Store in corrosive resistant/ .? container with a resistant inner liner

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Other information**

May be harmful if swallowed.

### **3. Composition/information on ingredients**

#### **Substance**

| Chemical name | CAS No    | Weight-% | Trade secret |
|---------------|-----------|----------|--------------|
| Sulfuric Acid | 7664-93-9 | 100      | *            |

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

### **4. First-aid measures**

## **Description of first aid measures**

|   |  |
|---|--|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.   |
| <b>Inhalation</b>                         | 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. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. 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>                          | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention.  |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe vapor or mist. 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. Use personal protective equipment as required. See section 8 for more information. |

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

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. |
|-----------------|--|

## **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. |
|---------------------------|--|

## **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**



**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Do not breathe vapor or mist. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Attention! Corrosive material.

**Other information** Refer to protective measures listed in Sections 7 and 8.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**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. Do not breathe vapor or mist. 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.

#### **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**

| Chemical name              | ACGIH TLV         | OSHA PEL                | NIOSH IDLH |
|----------------------------|-------------------|-------------------------|------------|
| Sulfuric Acid<br>7664-93-9 | No data available | 1 mg/m <sup>3</sup> TWA | -          |

#### **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** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid

contact with skin, eyes or clothing. Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. 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           | No information available |
| Odor threshold | No information available |

| Property                               | Values   | Remarks • Method |
|--|--|------------------|
| pH                                     | <1   | None known       |
| Melting point / freezing point         | 10 °C / 50 °F  | None known       |
| Boiling point / boiling range          | >270 °C / °F   | 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                       | 1.83   | None known       |
| Water solubility                       | Miscible in water<br>Evolves heat when mixed with water. | None known       |
| Solubility(ies)                        | Soluble in Ethanol                                       | 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       |
| <b>Other information</b>               |  |                  |
| 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. Excessive heat. |
| Incompatible materials             | Oxidizing agent. Acids. Bases.                                      |
| 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. Fatal if inhaled. (based on components). Corrosive by inhalation. 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.

#### 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

Coughing and/ or wheezing. Difficulty in breathing. Redness. Burning. May cause blindness.

### Acute toxicity

### Numerical measures of toxicity

### Component Information

| Chemical name              | Oral LD50            | Dermal LD50 | Inhalation LC50                        |
|----------------------------|----------------------|-------------|--|
| Sulfuric Acid<br>7664-93-9 | = 2140 mg/kg ( Rat ) | -           | 85 - 103 mg/m <sup>3</sup> ( 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

Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

| Chemical name              | ACGIH | IARC   | NTP | OSHA |
|----------------------------|-------|--|-----|------|
| Sulfuric Acid<br>7664-93-9 | -     | Group 1 - Monograph 54 [1992] occupational exposure to mists and vapours from sulfuric acid and other strong inorganic acids | -   | -    |

### Legend

### Reproductive toxicity

No information available.

### STOT - single exposure

No information available.

### STOT - repeated exposure

No information available.

|                              |  |
|------------------------------|--|
| <b>Target organ effects</b>  | respiratory system, Eyes, Skin, Teeth. |
| <b>Aspiration hazard</b>     | No information available.              |
| <b>Other adverse effects</b> | No information available.              |
| <b>Interactive effects</b>   | No information available.              |

## 12. Ecological information

### Ecotoxicity

| Chemical name              | Algae/aquatic plants | Fish                                    | Toxicity to microorganisms | Crustacea                         |
|----------------------------|----------------------|---|----------------------------|-----------------------------------|
| Sulfuric Acid<br>7664-93-9 | -                    | LC50: >500mg/L (96h, Brachydanio rerio) | -                          | EC50: 29mg/L (24h, Daphnia magna) |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and degradability</b> | No information available. |
| <b>Bioaccumulation</b>               | Inherently biodegradable. |

|                              |                           |
|------------------------------|---------------------------|
| <b>Other adverse effects</b> | No information available. |
|------------------------------|---------------------------|

## 13. Disposal considerations

### Waste treatment methods

|  |   |
|--|---|
| <b>Waste from residues/unused products</b> | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.  |

## 14. Transport information

### DOT

|  |   |
|--|---|
| <b>UN/ID no</b>                        | UN1830                                  |
| <b>Proper Shipping Name:</b>           | Sulfuric acid                           |
| <b>Hazard class</b>                    | 8                                       |
| <b>Packing group:</b>                  | II                                      |
| <b>Special Provisions</b>              | A3, A7, B3, B83, B84, IB2, N34, T8, TP2 |
| <b>Description:</b>                    | UN1830, Sulfuric acid, 8, II            |
| <b>Emergency Response Guide Number</b> | 137                                     |

### TDG

|                              |                              |
|------------------------------|------------------------------|
| <b>UN-No:</b>                | UN1830                       |
| <b>Proper Shipping Name:</b> | Sulfuric acid                |
| <b>Hazard class</b>          | 8                            |
| <b>Packing Group:</b>        | II                           |
| <b>Description:</b>          | UN1830, Sulfuric acid, 8, II |

### MEX

|                             |                               |
|-----------------------------|-------------------------------|
| <b>UN-No</b>                | UN1830                        |
| <b>Proper Shipping Name</b> | Sulphuric acid                |
| <b>Hazard class</b>         | 8                             |
| <b>Packing Group</b>        | II                            |
| <b>Description</b>          | UN1830, Sulphuric acid, 8, II |

### ICAO (air)

|               |        |
|---------------|--------|
| <b>UN-No:</b> | UN1830 |
|---------------|--------|

|                              |                               |
|------------------------------|-------------------------------|
| <b>Proper Shipping Name:</b> | Sulphuric acid                |
| <b>Hazard class</b>          | 8                             |
| <b>Packing Group:</b>        | II                            |
| <b>Description:</b>          | UN1830, Sulphuric acid, 8, II |

#### IATA

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>UN number</b>                  | UN1830                        |
| <b>Proper Shipping Name:</b>      | Sulphuric acid                |
| <b>Transport hazard class(es)</b> | 8                             |
| <b>Packing group</b>              | II                            |
| <b>Description:</b>               | UN1830, Sulphuric acid, 8, II |

#### IMDG

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>UN number</b>                  | UN1830                        |
| <b>Proper shipping name</b>       | Sulphuric acid                |
| <b>Transport hazard class(es)</b> | 8                             |
| <b>Packing group</b>              | II                            |
| <b>EmS-No</b>                     | F-A, S-B                      |
| <b>Marine pollutant</b>           | NP1                           |
| <b>Description</b>                | UN1830, Sulphuric acid, 8, II |

#### RID

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>UN number</b>                  | UN1830                        |
| <b>Proper Shipping Name:</b>      | Sulphuric acid                |
| <b>Transport hazard class(es)</b> | 8                             |
| <b>Packing group</b>              | II                            |
| <b>Classification code</b>        | C1                            |
| <b>Description:</b>               | UN1830, Sulphuric acid, 8, II |

#### ADR

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>UN number</b>                  | UN1830                        |
| <b>Proper Shipping Name:</b>      | Sulphuric acid                |
| <b>Transport hazard class(es)</b> | 8                             |
| <b>Packing group</b>              | II                            |
| <b>Classification code</b>        | C1                            |
| <b>Tunnel restriction code</b>    | (E)                           |
| <b>Description:</b>               | UN1830, Sulphuric acid, 8, II |
| <b>Labels</b>                     | 8                             |

#### ADN

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>UN/ID No</b>                   | UN1830                        |
| <b>Proper shipping name</b>       | Sulphuric acid                |
| <b>Transport hazard class(es)</b> | 8                             |
| <b>Packing Group</b>              | II                            |
| <b>Classification code</b>        | C1                            |
| <b>Description</b>                | UN1830, Sulphuric acid, 8, II |
| <b>Hazard label(s)</b>            | 8                             |
| <b>Limited quantity (LQ)</b>      | 1 L                           |
| <b>Equipment Requirements</b>     | PP, EP                        |

## 15. Regulatory information

### International Inventories

|             |          |
|-------------|----------|
| <b>TSCA</b> | Complies |
|-------------|----------|

|                      |  |
|----------------------|--|
| <b>DSL/NDL</b>       | Complies   |
| <b>EINECS/ELINCS</b> | Complies   |
| <b>ENCS</b>          | This product complies with ENCS:   |
| <b>IECSC</b>         | This product complies with China:  |
| <b>KECL</b>          | Complies   |
| <b>PICCS</b>         | Complies   |
| <b>AICS</b>          | 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/NDL** - 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 % |
|---------------------------|-------------------------------|
| Sulfuric Acid - 7664-93-9 | 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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **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 |
|----------------------------|-------------------------------------|------------------------------------|
| Sulfuric Acid<br>7664-93-9 | 1000 lb final RQ<br>454 kg final RQ | -                                  |

### US State Regulations

#### **California Proposition 65**

This product contains the following 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

| Chemical name              | New Jersey | Massachusetts | Pennsylvania         |
|----------------------------|------------|---------------|----------------------|
| Sulfuric Acid<br>7664-93-9 | 1761       | Present       | Environmental hazard |

### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

## 16. Other information

#### **NFPA**

**Health hazards** 4

**Flammability** 0

**Instability** 0

**Physical and chemical properties** -

#### **HMIS**

Health hazards 4 \*

Flammability 0

Physical hazards 0

Personal protection X

*Chronic Hazard Star Legend*

*\* = Chronic Health Hazard*

**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) (AELG(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 (IUCID)

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**

31-May-2022

**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      |
|----------------|-------------------|
| S1731          | Sulfuric Acid, NF |

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,  
Quality Assurance  
Spectrum Chemical Mfg. Corp.

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



## S1731, Sulfuric Acid, NF

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

### 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 following chemical 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 the above-mentioned 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 |

## Residual Solvents - Sulfuric Acid, NF (Catalog No. S1731)

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 USP <467> Residual Solvents and 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.

## 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. Below you will find a typical label example for this catalog item.

**DANGER**

- Causes severe skin burns and eye damage • Fatal if inhaled • May be corrosive to metals • May be harmful if swallowed • Reacts violently with water.
- Wear respiratory protection, eye protection, face protection, protective gloves, protective clothing • Do not breathe mist or vapors • Use only outdoors or in a well-ventilated area • 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): Remove 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. If conscious, give large quantities of water or milk. Follow with Milk of Magnesia or egg whites beaten with water. Never give anything by mouth to an unconscious person.

**KEEP FROM CHILDREN**



**S1731**

**SIZ SY**

**Sulfuric Acid**

NF

CAS 7664-93-9

H<sub>2</sub>SO<sub>4</sub> F.W. 98.08

Assay (by Wt.) ..... 95.0-98.0%

**MAXIMUM LIMITS**

Residue on Ignition ..... 0.005%

Chloride ..... 50 ppm

Arsenic ..... 1 ppm

Elemental Impurities ..... As reported

Reducing Substances ..... To pass test

Residual Solvents ..... To pass test

**WARNING:** Cancer and Reproductive Harm-  
www.P65Warnings.ca.gov

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

DOT: UN1830, Sulfuric acid, 8, PG II

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

www.SpectrumChemical.com

W 9/G12GHS ?

Lot No. XQ####

### 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