

Scientific Documentation

Sodium Sulfate, Anhydrous, FCC

Not appropriate for regulatory submission. Please visit 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 Sodium Sulfate, Anhydrous, FCC (S1454)

| Item Number | S1454 |
|-------------------|---|
| Item | Sodium Sulfate, Anhydrous, FCC |
| CAS Number | 7757-82-6 |
| Molecular Formula | Na ₂ SO ₄ |
| Molecular Weight | 142.04 |
| MDL Number | |
| Synonyms | Sulfuric Acid Disodium Salt ; Salt Cake |

| Test | Speci | fication |
|---------------------|-------|--------------|
| | Min | Max |
| APPEARANCE | | |
| ASSAY (DRIED BASIS) | 99.0 | 100.5 % |
| LEAD (Pb) | | 2 mg/kg |
| LOSS ON DRYING | | 1 % |
| SELENIUM (Se) | | 0.003 % |
| IDENTIFICATION | | TO PASS TEST |
| CERTIFIED KOSHER | | |
| CERTIFIED HALAL | | |
| EXPIRATION DATE | | |
| MANUFACTURE DATE | | |
| MONOGRAPH EDITION | | |

Spectrum Chemical Mfg Corp

| Corporate Headquarters: | West Coast Facility: |
|-------------------------|------------------------|
| 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 | S1454 | Lot Number | 1ML0139 |
|-------------------|---------------------------------|------------------|-----------|
| Item | Sodium Sulfate, Anhydrous, FCC | CAS Number | 7757-82-6 |
| Molecular Formula | Na ₂ SO ₄ | Molecular Weight | 142.04 |

| TEST | SPECIFICATION | | |
|---------------------|---------------|--------------|------------------|
| IESI | MIN | MAX | RESULT |
| ASSAY (DRIED BASIS) | 99.0 | 100.5 % | 99.6 % |
| LEAD (Pb) | | 2 mg/kg | <0.05 mg/kg |
| LOSS ON DRYING | | 1 % | 0.01 % |
| SELENIUM (Se) | | 0.003 % | <0.0001 % |
| IDENTIFICATION | | TO PASS TEST | PASSES TEST |
| CERTIFIED KOSHER | | | CERTIFIED KOSHER |
| CERTIFIED HALAL | | | CERTIFIED HALAL |
| EXPIRATION DATE | | | 01-OCT-2026 |
| MANUFACTURE DATE | | | 01-OCT-2021 |
| APPEARANCE | | | WHITE POWDER |
| MONOGRAPH EDITION | | | (FCC) 13 |

Certificate of Analysis Results Entered By:

HBERMUDEZ Hernan Bermudez 04-JAN-24 11:55:15

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



Certificate of Analysis Results Approved By:

SHANSEN Selin Hansen 09-JAN-24 13:13:11

All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

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

Revision date 09-March-2022

| 1. Identification | |
|---|--------------------------------|
| Product identifier | |
| Product Name | SODIUM SULFATE, ANHYDROUS, FCC |
| Other means of identification | |
| Product Code(s) | S1454 |
| Synonyms | None |
| Recommended use of the chemica | l and restrictions on use |
| Recommended use | No information available |
| Restrictions on use | No information available |
| Details of the supplier of the safety | v data sheet |
| <u>Supplier Address</u> 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

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Granular or Crystals or Crystalline powder or Powder

Physical state Solid

Odor Odorless



Revision Number 2

Other information

No information available.

3. Composition/information on ingredients

Substance

| Chemical name | CAS No | Weight-% | Trade secret |
|---------------------------|-----------|----------|--------------|
| Sodium Sulfate, anhydrous | 7757-82-6 | 100 | * |

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

4. First-aid measures

Description of first aid measures

| Inhalation | Remove to fresh air. |
|--|--|
| Innalation | |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash skin with soap and water. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |
| Most important symptoms and effects, both acute and delayed | |
| Symptoms | No information available. |
| Indication of any immediate medical attention and special treatment needed | |
| | |

Note to physicians Treat symptomatically.

5. Fire-fighting measures

| Suitable Extinguishing Media Large Fire | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. CAUTION: Use of water spray when fighting fire may be inefficient. |
|---|---|
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | No information available. |
| Explosion data Sensitivity to mechanical impac | at none. |
| Sensitivity to static discharge | none. |
| Special protective equipment for fire-fighters | 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 | Ensure adequate ventilation. |
|----------------------|------------------------------|
|----------------------|------------------------------|

| 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. | |
| Conditions for safe storage, includi | ng any incompatibilities | |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. | |

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. |
|-------------------------------------|--|
| Appropriate engineering controls | |
| Engineering controls | Showers Eyewash stations Ventilation systems. |
| Individual protection measures, suc | ch as personal protective equipment |
| Eye/face protection | No special protective equipment required. |
| Skin and body protection | No special protective equipment required. |
| 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 | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

Information on basic physical and chemical propertiesPhysical stateSolidAppearanceGranular or Crystals or Crystalline powder or Powder

| Color | White; Colorless | |
|--------------------------------------|------------------------------------|--------------------------------|
| Odor | Odorless | |
| Odor threshold | No information available | |
| Drowerty | Values | Demorika - Mathad |
| Property | <u>Values</u> no data available | Remarks • Method None known |
| pH Malting point / freezing point | 884 - 888 °C / 1623.2 - 1630.4 | |
| Melting point / freezing point | °F | None known |
| Boiling point / boiling range | 1100 °C / 2012 °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 | No data available | |
| limits | | |
| Lower flammability or explosive | No data available | |
| limits | | |
| Vapor pressure | No data available | None known |
| Vapor density | no data available | None known |
| Relative density | 2.671 | None known |
| Water solubility | Soluble in water | None known |
| Solubility(ies) | Soluble in Glycerol | None known |
| | Soluble in Alcohol | |
| 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 |
| Other information | | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Softening point | No information available | |
| Molecular weight | 142.06 | |
| VOC Content (%) | No information available | |
| Liquid Density | No information available | |
| Bulk density | 1.3-1.5 g/m³ @ 20 C | |
| | | |

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 | None known based on information supplied. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

| Inhalation | Specific test data for the substance or mixture is not available. |
|--------------|---|
| Eye contact | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |

Ingestion

Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

Acute toxicity

Numerical measures of toxicity

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------|---------------------|-------------|-----------------|
| Sodium Sulfate, anhydrous | > 10000 mg/kg (Rat) | - | - |
| 7757-82-6 | | | |

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

| Skin corrosion/irritation Serious eye damage/eye irritation Respiratory or skin sensitization Germ cell mutagenicity | No information available. No information available. No information available. No information available. |
|---|--|
| Reproductive toxicity | No information available. |
| STOT - single exposure STOT - repeated exposure Aspiration hazard | No information available. No information available. No information available. |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |

12. Ecological information

Ecotoxicity

| ECOLOXICITY | • | | | |
|---|----------------------|---|-------------------------------|---|
| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
| Sodium Sulfate, anhydrous 7757-82-6 | - | LC50: 13500 - 14500mg/L (96h, Pimephales promelas) LC50: 3040 - 4380mg/L (96h, Lepomis macrochirus) LC50: =13500mg/L (96h, Lepomis macrochirus) LC50: >6800mg/L (96h, Pimephales promelas) | - | EC50: =2564mg/L (48h, Daphnia magna) EC50: =630mg/L (96h, Daphnia magna) |

Persistence and degradability Bioaccumulation

No information available. Inherently biodegradable.

Other adverse effects

No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused

environmental legislation.

Contaminated packaging

Do not reuse empty containers.

14. Transport information

| DOT | not regulated |
|------------|---------------|
| TDG | not regulated |
| MEX | not regulated |
| ICAO (air) | not regulated |
| IATA | not regulated |
| IMDG | not regulated |
| RID | not regulated |
| ADR | not regulated |
| ADN | not regulated |

15. Regulatory information

International Inventories

| TSCA | Complies |
|---|---|
| Note | *Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements |
| DSL/NDSL EINECS/ELINCS ENCS IECSC KECL PICCS AICS | Complies Complies This product complies with ENCS: This product complies with China: Complies Complies 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

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, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

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

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------|------------|---------------|----------------------|
| Sodium Sulfate, anhydrous | - | Present | Environmental hazard |
| 7757-82-6 | | | |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| <u>NFPA</u> Health hazards Flammability 0 Instability 0 Physical and ch <u>HMIS</u> Health hazards Flammability 0 Physical hazard Personal proted | nemical properties - 0 1 ds 0 | | |
|---|---|--|----------------------------------|
| | o abbreviations and acronyms used in t | | _ |
| Legend Section TWA Ceiling | n 8: EXPOSURE CONTROLS/PERSONAL TWA (time-weighted average) Maximum limit value | L PROTECTION STEL | STEL (Short Term Exposure Limit) |
| Cennig | | | |
| Agency for Toxic U.S. Environmer European Food S EPA (Environmer Acute Exposure U.S. Environmer Food Research & Hazardous Subs International Uni Japan GHS Clas Australia Nationa | tance Database form Chemical Information Database (IUC | R) Fungicide, and Roder lume Chemicals LID) sessment Scheme (NIC | |

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 **Revision Note** 09-March-2022 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

spectrum

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 |
|-------------------|--------------------------------|
| S1454 | Sodium Sulfate, Anhydrous, FCC |

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:2020632Spectrum-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 <u>qualityassurance@spectrumchemical.com</u>

Sincerely,

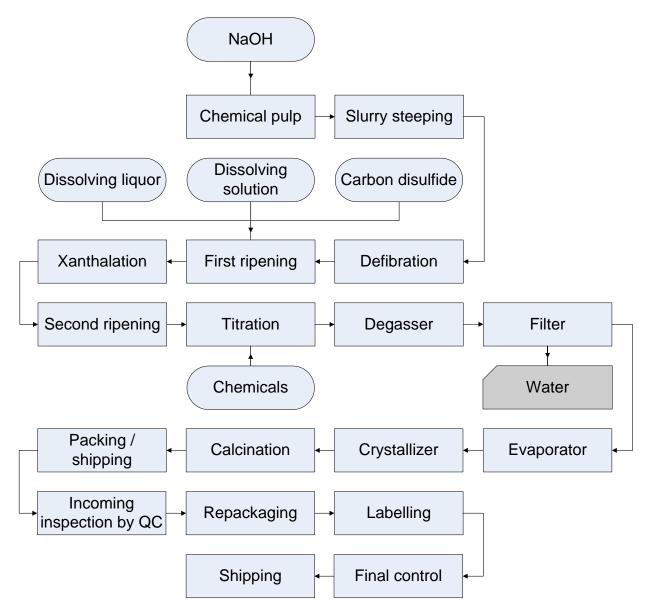
Oulu Clamy

Oralia Chavez Quality Assurance Specialist



Manufacturing Process Flowchart

Sodium Sulfate, Anhydrous, FCC - S1454



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

spectrum

S1454, Sodium Sulfate, Anhydrous, FCC

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 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 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 60 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
- Antibiotics
- Bisphenol A (BPA)
- CMR Substances

- Parabens
- Pesticides
- Phthalates
- Preservatives

spectrum®

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.



Spectrum Chemical Mfg Corp

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