

Scientific Documentation

Sulfasalazine, USP

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 Sulfasalazine, USP (S1668)

Item Number	S1668
Item	Sulfasalazine, USP
CAS Number	599-79-1
Molecular Formula	C ₁₈ H ₁₄ N ₄ O ₅ S
Molecular Weight	398.39
MDL Number	
Synonyms	

Test	Specification	
	Min	Max
ASSAY (DRIED BASIS)	97.0	101.5 %
LOSS ON DRYING		1.0 %
ORGANIC IMPURITIES	.	
SINGLE IMPURITY		2 %
TOTAL IMPURITIES		4 %
RESIDUE ON IGNITION		0.5 %
CHLORIDE (Cl)		0.014 %
SULFATE		0.04 %
ELEMENTAL IMPURITIES	AS REPORTED	
IDENTIFICATION (A)	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION (B)	SPECTRUM MATCHES REFERENCE	
EXPIRATION DATE		
DATE OF MANUFACTURE		
APPEARANCE		
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

Corporate Headquarters: West Coast Facility:

732.214.1300

310.516.8000

Certificate Of Analysis

Item Number	S1668	Lot Number	1KK1139
Item	Sulfasalazine, USP	Manufacturer Lot	SSZ0261021
CAS Number	599-79-1	Manufacturer Code	14115
Molecular Formula	C ₁₈ H ₁₄ N ₄ O ₅ S	Molecular Weight	398.39

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (DRIED BASIS)	97.0	101.5 %	98.4 %
LOSS ON DRYING		1.0 %	0.28 %
ORGANIC IMPURITIES	.		.
SINGLE IMPURITY		2 %	<2 %
TOTAL IMPURITIES		4 %	<4 %
RESIDUE ON IGNITION		0.5 %	0.14 %
CHLORIDE (Cl)		0.014 %	<0.014 %
SULFATE		0.04 %	<0.04 %
ELEMENTAL IMPURITIES	AS REPORTED		NO ELEMENTAL IMPURITIES PRESENT
IDENTIFICATION (A)	SPECTRUM MATCHES REFERENCE		SPECTRUM MATCHES REFERENCE
IDENTIFICATION (B)	SPECTRUM MATCHES REFERENCE		SPECTRUM MATCHES REFERENCE
EXPIRATION DATE			30-APR-2026
DATE OF MANUFACTURE			01-MAY-2021
APPEARANCE			BROWNISH YELLOW POWDER
RESIDUAL SOLVENTS		AS REPORTED	AS REPORTED
CLASS 2 (SOLVENT) / METHANOL			<3000 ppm
CLASS 2 (solvent) / METHYLENE CHLORIDE			<600 ppm
CLASS 2 (solvent) / PYRIDINE			<200 ppm
CLASS 2 (solvent) / TOLUENE			<890 ppm

TEST	SPECIFICATION		RESULT
	MIN	MAX	
CLASS 3 (solvent) / ACETIC ACID			<5000 ppm
MONOGRAPH EDITION			(USP) 2021

Certificate of Analysis Results Entered By:

HBERMUDEZ
Hernan Bermudez
14-DEC-21 16:04:29

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



Certificate of Analysis Results Approved By:

HBERMUDEZ
Hernan Bermudez
14-DEC-21 16:05:08

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.

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.

Spectrum Chemical Mfg. Corp. repackages Active Pharmaceutical Ingredient chemicals provided by other manufacturers and suppliers. For traceability purposes, Spectrum's Certificate of Analysis contains an identifier code unique to each manufacturer or supplier, as well as the chemical's lot number provided on the original manufacturer Certificate of Analysis. This material is manufactured by Valens Molecules Private Limited at Plot No. 11, Road No. 2, Industrial Estate, Medchal, Hyderabad, Telangana 501401, India. Copies of the original Certificate of Analysis are available upon request from your Spectrum Sales Representative or by calling Spectrum's Quality Department at 1-800-772-8786.

SAFETY DATA SHEET

Preparation Date: 10/30/2017

Revision Date: 10/30/2017

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: S1668
Product Name: SULFASALAZINE, USP

Other means of identification

Synonyms: Asulfidine
 Azopyrin
 Azulfidine
 4-(Pyridyl-2-amidosulfonyl)-3'-carboxy-4'-hydroxyazobenzene
 5-(4-(2-Pyridylsulfamoyl)phenylazo)-2-hydroxybenzoic acid
 5-(p-(2-Pyridylsulfamoyl)phenylazo)salicylic acid
 Salazopyrin
 Salazosulfapyridine
 Salicylazosulfapyridine
 Benzoic acid, 2-hydroxy-5-((4-((2-pyridinylamino)sulfonyl)phenyl)azo)-
 Benzosulfa
 2-Hydroxy-5-((4-((2-pyridinylamino)sulfonyl)phenyl)azo)benzoic acid
 Sulphasalazine

CAS #: 599-79-1
RTECS # VO6250000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

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

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Respiratory sensitization	Category 1
Skin sensitization	Category 1

Reproductive toxicity	Category 2
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Label elements

Danger

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Suspected of damaging fertility or the unborn child



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Avoid breathing dust/fume/gas/mist/vapors/spray

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing must not be allowed out of the workplace

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

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Sulfasalazine	599-79-1	100

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact:	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
Eye Contact:	Flush eyes with water for 15 minutes. Get medical attention if irritation occurs.
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause eye/skin/respiratory tract irritation May cause abdominal pain, nausea, vomiting, diarrhea May cause anorexia Central nervous system effects May cause drowsiness or dizziness Headache Confusion May affect the liver It may affect the blood May cause difficult and painful urination May cause muscle and joint pain May cause an allergic skin reaction May cause allergic respiratory reaction May cause increased sensitivity of skin to sunlight
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Indication of any immediate medical attention and special treatment needed

Notes to Physician:	Treat symptomatically.
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Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:	Dry chemical. Carbon dioxide (CO ₂). Water spray mist or foam.
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Unsuitable Extinguishing Media:	No information available.
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Specific hazards arising from the chemical

Hazardous Combustion Products:	Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides. Sulfur Oxides.
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Specific hazards:	May be combustible at high temperatures.
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Special Protective Actions for Firefighters

Specific Methods:	No information available.
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Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid dust formation. Remove all sources of ignition.
<u>Environmental precautions</u>	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent from entering into soil, ditches, sewers, waterways, and/or ground water.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.
Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Protect from light. Sensitive to light. Store in light-resistant containers.

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Sulfasalazine	599-79-1	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Sulfasalazine	599-79-1	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Sulfasalazine	599-79-1	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles or Safety glasses with side-shields
Skin and body protection:	Long sleeved clothing Chemical resistant apron Gloves
Respiratory protection:	Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Powder.	Color: Bright Yellow. Brownish-yellow.
Odor: Odorless.	Taste No information available.	Formula: C18H14N4O5S
Molecular/Formula weight: 398.39	Flammability: No information available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not applicable	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 220 °C/428 °F	Decomposition temperature(°C/°F): 240-265 °C/464-509 °F
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: No information available	pH: No information available	Vapor pressure @ 20°C (kPa): No information available

Evaporation rate:

Product code: S1668

Product name: SULFASALAZINE,
USP

No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
Log kow = 3.8

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Practically insoluble in water
Slightly soluble in alcohol
Practically insoluble in Ether
Practically insoluble in Chloroform
Practically insoluble in Benzene
Soluble in solution of alkali hydroxides

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Avoid dust formation. Incompatible materials.

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Sulfur oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Sulfasalazine	
CAS-No.	599-79-1
LD50/oral/rat = 15600 mg/kg Oral LD50 Rat	
LD50/oral/mouse = 12500 mg/kg	
LD50/dermal/rabbit = No information available	
LD50/dermal/rat = No information available	
LC50/inhalation/rat = No information available	
LC50/inhalation/mouse = No information available	

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USP

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Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 15600 mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 12500 mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion May cause abdominal pain, nausea, vomiting, diarrhea. May cause anorexia. May cause difficulty swallowing. May affect liver. May affect the blood. It may affect behavior/central nervous system (drowsiness). May affect behavior/central nervous system (dizziness, headache). May affect behavior/central nervous system (confusion). May cause joint and muscle pain. May cause allergic reaction characterized by a rash. May cause painful or difficult urination. May cause photosensitivity reaction.

Aspiration hazard No information available.

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

Chronic Toxicity Skin: Sensitizer. May cause allergic skin reaction (allergic contact dermatitis). Prolonged or repeated inhalation may cause asthma-like allergy and asthma attacks with shortness of breath, difficulty breathing, wheezing, coughing, and/or chest tightness.

Sensitization: May cause sensitization by inhalation and skin contact.

Mutagenic Effects: No information available

Carcinogenic effects: Possibly carcinogenic to humans.

Components	CAS-No.	IARC	ACGIH -	NTP	OSHA HCS -	Australia -	Australia -
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Product code: S1668

Product name: SULFASALAZINE,
USP

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			Carcinogens		Carcinogens	Notifiable Carcinogenic Substances	Prohibited Carcinogenic Substances
Sulfasalazine	599-79-1	Group 2B - Possibly Carcinogenic to Humans - Monograph 108 [in preparation]	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity

No data is available

Reproductive Effects:

Suspected of damaging fertility or the unborn child
The Registry of Toxic Effects of Chemical Substances (RTECS) notes reproductive effects data for animal studies on male rats (Paternal effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count) Testes, epididymis, sperm duct)

Developmental Effects:

May cause adverse developmental effects based on animal data

Teratogenic Effects:

No information available

Specific Target Organ Toxicity

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Target Organs:

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:

No data available.

Persistence and degradability:

No information available

Bioaccumulative potential:

Potential for bioconcentration in aquatic organisms is low.

Mobility:

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
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Sulfasalazine	599-79-1	None	None	None	None
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14. TRANSPORT INFORMATION

DOT

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide Number	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	No Information available
Symbol(s):	No information available
Description:	No information available

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No Information available
Description:	No information available

ADR

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Packing Group:	No information available
Subsidiary Risk:	No information available

IMO / IMDG

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No information available

RID

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available

ICAO

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available

IATA

UN-No:	Not Regulated
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Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION


International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Sulfasalazine	599-79-1	Not Listed	Not present	Not present	Present (9)-483	Present	Present	Present 209-974-3


U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

 **WARNING:** This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemicals Known to the State of California to Cause Reproductive Toxicity:

 **WARNING:** This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sulfasalazine	599-79-1	carcinogen	Not Listed	male reproductive toxicity	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Sulfasalazine	599-79-1	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sulfasalazine	599-79-1	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Product code: S1668

Product name: SULFASALAZINE,
USP

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WHMIS 1988 Hazard Class

D2A Very toxic materials

D2B Toxic materials

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Sulfasalazine	599-79-1	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Sulfasalazine	599-79-1	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sulfasalazine	599-79-1	Not listed

EU Classification**EU GHS - SV - CLP 1272/2008**

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Sulfasalazine	599-79-1	No information

EU - CLP (1272/2008)**R-phrases**

R40 - Limited evidence of a carcinogenic effect

R62 - Possible risk of impaired fertility.

R42/43 - May cause sensitization by inhalation and skin contact.

S-phrases

none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Sulfasalazine	599-79-1		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

Xn**16. OTHER INFORMATION**

Preparation Date: 10/30/2017
Revision Date: 10/30/2017
Prepared by: Sonia Owen

Product code: S1668

Product name: SULFASALAZINE,
USP

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Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

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
S1668	Sulfasalazine, USP

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

Sincerely,

A handwritten signature in black ink, appearing to read "Oralia Chavez", written in a cursive style.

Oralia Chavez
Quality Assurance Specialist

S1668, Sulfasalazine, USP

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

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



RE: Elemental Impurities - Sulfasalazine, USP (Cat# S1668)

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.

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 - Sulfasalazine, USP (Cat# S1668)

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. The following solvents are likely to be present:

Residual Solvent	Class	Expected Concentration
Methanol	2	< 3000 ppm
Methylene Chloride	2	< 600 ppm
Pyridine	2	< 200 ppm
Toluene	2	< 890 ppm
Acetic Acid	3	< 5000 ppm

No Class 1 or other solvents are used or produced in the manufacturing process of this material.

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.

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

Exp. Date: 00-00-0000



DANGER

- May cause an allergic skin reaction •
- May cause allergy or asthma symptoms or breathing difficulties if inhaled •
- Suspected of damaging fertility or the unborn child.

* Obtain special instructions before use • Do not handle until all safety precautions have been read and understood • Wear respiratory protection, eye protection, face protection, protective gloves, protective clothing • Avoid breathing dust • Contaminated work clothing must not be allowed out of the workplace.

FIRST AID: IF ON SKIN: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician.

KEEP FROM CHILDREN

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



S1668

SIZ SY

Sulfasalazine

USP

CAS 599-79-1

CAUTION: For manufacturing, processing, repacking, or for prescription compounding. Rx only.

Read and understand the label and Safety Data Sheet (SDS) prior to use.

Chemical Emergency: (800)424-9300

www.SpectrumChemical.com

$C_{18}H_{14}N_4O_5S$ F.W. 398.39

Non-sterile.

Manufacturer/Supplier Code ?

Manufacturer Lot Number ?

Assay (Dried Basis) 97.0-101.5%

MAXIMUM LIMITS

Loss on Drying 1.0%

Organic Impurities To pass test

Residue on Ignition 0.5%

Chloride 0.014%

Sulfate 0.04%

Elemental Impurities As reported

Residual Solvents To pass test

LIGHT SENSITIVE: Keep tightly closed in light-resistant containers.

Repackaged by Spectrum as:

G 10/16GHS-A ? Lot No. XQ####

Spectrum Chemical Mfg Corp

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West Coast Facility:

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