

Scientific Documentation

Sodium Lauryl Sulfate, NF, EP, BP, JP

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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Product Specification Certificate of Analysis Safety Data Sheet (SDS) Certification of Current Good Manufacturing Practices (cGMP) Technical Statements Elemental Impurities Statement Residual Solvents Statement General Label Information – Sample Label



Specification for Sodium Lauryl Sulfate, NF, EP, BP, JP (SO180)

Item Number	SO180
Item	Sodium Lauryl Sulfate, NF, EP, BP, JP
CAS Number	151-21-3
Molecular Formula	C ₁₂ H ₂₅ O ₄ SNa
Molecular Weight	288.38
MDL Number	
Synonyms	Sodium Dodecyl Sulfate ; SDS ; Dodecyl Sodium Sulfate ; Lauryl Sulfate Sodium Salt ; Sodium Laurilsulfate

Test	Specificatio	n
	Min	Max
APPEARANCE		
TOTAL ALCOHOLS	59.0%	
CONTENT OF SODIUM ALKYL SULFATES	85.0 %	
ALKALINITY		0.5 ml
SODIUM CHLORIDE AND SODIUM SULFATE		8.0%
UNSULFATED ALCOHOLS (NON-ESTERIFIED ALCOHOLS)		4.0%
WATER		5.0%
ELEMENTAL IMPURITIES	AS REPORTED	
IDENTIFICATION A (NF/EP)	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION B (NF/EP)	PRECIPITATE FORMS	
IDENTIFICATION (D) EP	FOAM IS FORMED	
IDENTIFICATION (C), PART 1-	NO PRECIPITATE FORMS (SPEC LIMIT)	
IDENTIFICATION (C), PART 2-	PRECIPITATE FORMS (SPEC LIMIT)	
IDENTIFICATION 1 JP (FTIR)	SPECTRUM MATCHES REFERENCE	

Test	Specification		
	Min	Max	
IDENTIFICATION (2) JP	A WHITE PRECIPITATE FORMS		
IDENTIFICATION (3) JP	A WHITE PRECIPITATE FORMS		
CERTIFIED HALAL			
EXPIRATION DATE			
DATE OF MANUFACTURE			
MONOGRAPH EDITION			
MONOGRAPH EDITION.			
MONOGRAPH EDITION			
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
732.214.1300	310.516.8000



Certificate Of Analysis

Item Number	SO180	Lot Number	2NC0030
Item	Sodium Lauryl Sulfate, NF, EP, BP, JP	CAS Number	151-21-3
Molecular Formula	C ₁₂ H ₂₅ O ₄ SNa	Molecular Weight	288.38

T FCT	SPECIFICATION			
TEST	MIN	MAX	RESULT	
APPEARANCE			WHITE POWDER	
TOTAL ALCOHOLS	59.0%		65.5 %	
CONTENT OF SODIUM ALKYL SULFATES	85.0 %		99.0 %	
ALKALINITY		0.5 ml	0.1 ml	
SODIUM CHLORIDE AND SODIUM SULFATE		8.0%	0.6 %	
UNSULFATED ALCOHOLS (NON- ESTERIFIED ALCOHOLS)		4.0%	0.3 %	
WATER		5.0%	1.0 %	
ELEMENTAL IMPURITIES	AS REPORTED		COMPLIES WITH STANDARDS	
IDENTIFICATION A (NF/EP)	SPECTRUM MATCHES REFERENCE		SPECTRUM MATCHES REFERENCE	
IDENTIFICATION B (NF/EP)	PRECIPITATE FORMS		PRECIPITATE FORMS	
IDENTIFICATION (D) EP	FOAM IS FORMED		FOAM IS FORMED	
IDENTIFICATION (C), PART 1-	NO PRECIPITATE FORMS (SPEC LIMIT)		NO PRECIPITATE FORMS	
IDENTIFICATION (C), PART 2-	PRECIPITATE FORMS (SPEC LIMIT)		PRECIPITATE FORMS	
IDENTIFICATION 1 JP (FTIR)	SPECTRUM MATCHES REFERENCE		SPECTRUM MATCHES REFERENCE	

тгст	SPECIFICATION		DECULT
TEST	MIN	MAX	RESULT
IDENTIFICATION (2) JP	A WHITE PRECIPITATE FORMS		A WHITE PRECIPITATE FORMS
IDENTIFICATION (3) JP	A WHITE PRECIPITATE FORMS		A WHITE PRECIPITATE PRODUCED
CERTIFIED HALAL			CERTIFIED HALAL
EXPIRATION DATE			07-MAY-2026
DATE OF MANUFACTURE			08-MAY-2023
MONOGRAPH EDITION			NF 2023
MONOGRAPH EDITION.			EP 11, BP 2024
MONOGRAPH EDITION			JP 18TH
RESIDUAL SOLVENTS	AS REPORTED		NO RESIDUAL SOLVENTS PRESENT

Certificate of Analysis Results Entered By:

CMARIN Catherine Marin 12-MAR-24 14:02:14

Spectrum Chemical Mfg Corp 755 Jersey Avenue New Brunswick 08901 NJ



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.

Certificate of Analysis Results Approved By:

GHERRERA Genaro Herrera 13-MAR-24 05:53:04

SAFETY DATA SHEET

Revision date 05-July-2022

1. Identification	
Product identifier	
Product Name	SODIUM LAURYL SULFATE, NF, EP, BP, JP
Other means of identification	
Product Code(s)	SO180
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	Surfactant
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 - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Combustible dust	Yes

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

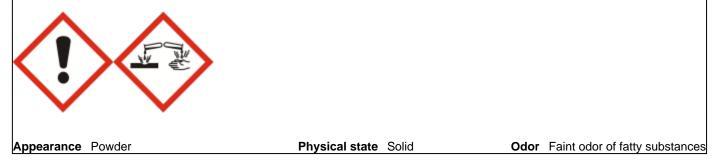
Danger Warning

Hazard statements Harmful if swallowed Causes skin irritation Causes serious eye damage May cause respiratory irritation



Revision Number 5

May form combustible dust concentrations in air



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wear protective gloves/eye protection/face protection Keep away from all ignition sources including heat, sparks, and flame Keep container closed and grounded Prevent dust accumulations to minimize explosion hazard

Precautionary Statements - Response

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: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor if you feel unwell IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

Other information

No information available.

3. Composition/information on ingredients

Substance

Chemical name	CAS No	Weight-%	Trade secret
Sodium Lauryl Sulfate	151-21-3	100	*

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

4. First-aid measures

Description of first aid measures

General advice

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

Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.	
Eye contact	Get immediate medical advice/attention. 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.	
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.	
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.	
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).	
Most important symptoms and effects, both acute and delayed		
Symptoms	Burning sensation.	
Indication of any immediate medical	attention and special treatment needed	
Note to physicians	Treat symptomatically.	

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	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	Avoid generation of dust. Fine dust dispersed in air may ignite.
Hazardous combustion products	Carbon Monoxide, Carbon Dioxide. Sulfur oxides. Sodium oxides.
Explosion data Sensitivity to mechanical impac	zt none.
Sensitivity to static discharge	yes.
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. Avoid generation of dust. Avoid contact with eyes. Use personal protective equipment as required. Do not breathe dust. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for cleaning up Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. 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. Ensure adequate ventilation. Avoid contact with eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.			
Conditions for safe storage, including any incompatibilities				
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.			

Keep out of the reach of children.

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	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
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	Do not breathe dust. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Color	White to yellowish
Odor	Faint odor of fatty substances
Odor threshold	No information available

<u>Property</u> pH Melting point / freezing point	<u>Values</u> no data available 204 - 207 °C / 399.2 - 404.6 °F	Remarks • Method None known Slightly Alkaline None known
Boiling point / boiling range Flash point Evaporation rate Flammability (solid, gas) Flammability Limit in Air Upper flammability or explosive limits	no data available no data available no data available no data available No data available	None known None known None known None known None known
Lower flammability or explosive limits Vapor pressure Vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity	No data available No data available no data available 1.01 Soluble in water no data available 1.6 no data available No data available	None known None known None known None known None known None known None known None known None known
Other information Explosive properties Oxidizing properties Softening point Molecular weight VOC Content (%) Liquid Density Bulk density	No information available No information available No information available 288.38 No information available No information available 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 Excessive heat. Heating in air. dust formation.
Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

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11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes. (based on components).
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

Unknown acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Lauryl Sulfate	= 977 mg/kg (Rat)	-	> 3900 mg/m³(Rat)1 h
151-21-3			

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

Skin corrosion/irritation Serious eye damage/eye irritation	Classification based on data available for ingredients. Irritating to skin. Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
·	
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

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Ecotoxicity	•			
Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
	.		microorganisms	
Sodium Lauryl Sulfate	EC50: 3.59 - 15.6mg/L	LC50: 10.2 - 22.5mg/L	-	EC50: =1.8mg/L (48h,
151-21-3	(96h, Pseudokirchneriella	(96h, Pimephales		Daphnia magna)
	subcapitata) EC50: 30 -	promelas) LC50: 10.8 -		
	100mg/L (96h,	16.6mg/L (96h, Poecilia		
	Desmodesmus	reticulata) LC50: 13.5 -		
	subspicatus) EC50:	18.3mg/L (96h, Poecilia		
	=117mg/L (96h,	reticulata) LC50: 15 -		
	Pseudokirchneriella	18.9mg/L (96h,		
	subcapitata) EC50:	Pimephales promelas)		
	=53mg/L (72h,	LC50: 22.1 - 22.8mg/L		
	Desmodesmus	(96h, Pimephales		
	subspicatus)	promelas) LC50: 4.06 -		
		5.75mg/L (96h, Lepomis		
		macrochirus) LC50: 4.2 -		
		4.8mg/L (96h, Lepomis		
		macrochirus) LC50: 4.3 -		
		8.5mg/L (96h,		
		Oncorhynchus mykiss)		
		LC50: 5.8 - 7.5mg/L (96h,		
		Pimephales promelas)		

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LC50: 6.2 - 9.6mg/L (96h,	
Pimephales promelas)	
LC50: 8 - 12.5mg/L (96h,	
Pimephales promelas)	
LC50: 9.9 - 20.1mg/L	
U	
	LC50: 8 - 12.5mg/L (96h,

Persistence and degradability		
Bioaccumulation		

No information available. Inherently biodegradable.

Component Information

Chemical name	Partition coefficient
Sodium Lauryl Sulfate 151-21-3	1.6

Other adverse effects

No information available.

13. Disposal considerations	

Waste treatment methods

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

14. Transport information

DOT	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

Complies

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Complies
PICCS	Complies
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical
	Substances (AICS).

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product 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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA

Health hazards 3 Flammability 1 Instability 0 Physical and chemical properties -HMIS Health hazards 3 Flammability 0 Physical hazards 0 Personal protection X Key or legend to abbreviations and acronyms used in the safety data sheet Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA (time-weighted average) STEL STEL (Short Term Exposure Limit) TWA Ceiling Maximum limit value Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization **Revision date**

Revision Note Disclaimer 05-July-2022 No information available.

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
SO180	Sodium Lauryl Sulfate, NF, EP, BP, JP

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: Spectrum-New Brunswick, NJ: 2020632 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>gualityassurance@spectrumchemical.com</u>

Sincerely,

Oulu Clamy

Oralia Chavez Quality Assurance Specialist

SO180, Sodium Lauryl Sulfate, NF, EP, BP, JP

Source Statement

The above mentioned catalog item is manufactured using plant derived material and chemical synthesis. No animal 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

- Cereals containing Gluten
- Celery
- Mustard
- Sesame Seed
- Corn
- Latex
- 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 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 36 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

RE: Elemental Impurities - Sodium Lauryl Sulfate, NF, EP, BP, JP (Cat# SO180)

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

The above material complies with the USP<232>, <233> Elemental Impurities and the ICH Q3D Elemental Impurities Guideline. The following elemental impurities are likely to be present:

Elemental Impurity		Class	Expected Concentration
Cadmium	Cd	1	< 0.5 ppm
Lead	Pb	1	< 0.5 ppm
Arsenic	As	1	< 1.5 ppm
Mercury	Hg	1	< 3.0 ppm
Cobalt	Со	2A	< 5.0 ppm
Vanadium	V	2A	< 10.0 ppm
Nickel	Ni	2A	< 20.0 ppm

Other elemental impurities considered by USP <232>, <233> and ICH Q3D which are not addressed in the above mentioned table are not 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 <u>TechServices@spectrumchemical.com</u>.

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

AN ISO 9001:2015 REGISTERED COMPANY

spectrum

RE: Residual Solvents - Sodium Lauryl Sulfate, NF, EP, BP, JP (Cat# SO180)

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

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

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

If you have any further questions, please contact us by telephone at 1(800)772-8786 Option 2, or by email at <u>TechServices@spectrumchemical.com</u>.

Sincerely,

Technical Services Spectrum Chemical Mfg. Corp.

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CORPORATE HEADQUARTERS

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WEST COAST FACILITY

14422 South San Pedro Street Gardena, California 90248 PHONE 310.516.8000 FAX 310.516.9843

AN ISO 9001:2015 REGISTERED COMPANY

www.spectrumchemical.com

spectrum®

RED: Flammable

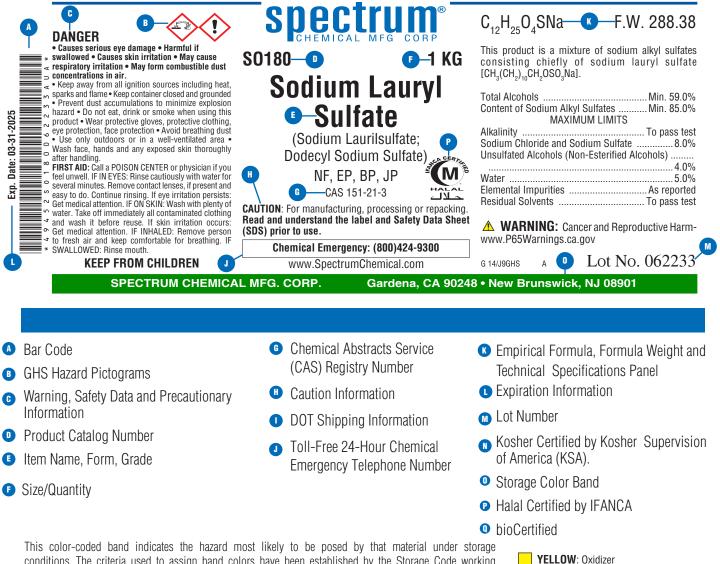
GREEN: General Storage

BLUE: Health Hazard

WHITE: Corrosive

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.



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

Spectrum Chemical Mfg Corp

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

732.214.1300

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