



Scientific Documentation

SO180, 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

Ver4.01 6.April.2016



Dear Customer,

Thank you for your interest in Spectrum's quality products and services.

Spectrum has been proudly serving our scientific community for over 45 years. It is our mission to manufacture and distribute fine chemicals and laboratory products with Quality and delivery you can count on every time.

To accomplish our mission, Spectrum utilizes our sourcing leverage and supplier qualification expertise in offering one of the industry's most comprehensive line of fine chemical products under one brand, in packaging configurations designed to meet your research and production requirements. Our product grades include: USP, NF, BP, EP, JP, FCC, ACS, KSA, Reagent grade, as well as DEA controlled substances. We operate facilities in the United States on the East Coast, West Coast, as well as in Shanghai, China in order to provide the best logistical support for our customers.

At Spectrum, Quality is priority number one. Suppliers with the best qualifications are preferred and we employ full-functioning in-house analytical laboratories at each of our facilities. Our facilities and systems are USFDA registered and ISO certified. We frequently host customer audits and cherish opportunities for improvements. Quality is engrained into our culture. Quality is priority number one.

In the following pages, we have designed and prepared documented scientific information to aid you in your initial qualification or your continual use of our products. Please do not hesitate to contact us if further information or the most up-to-date documentation is desired from any of the covered areas.

We appreciate your business and we look forward to hearing from you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alan Wang". The signature is stylized with a large loop at the end.

Alan Wang, MSQA, ASQ CQA
Senior Manager, Global Supplier Quality Assurance
qualityassurance@spectrumchemical.com

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

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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	$C_{12}H_{25}O_4SNa$
Molecular Weight	288.38
MDL Number	
Synonyms	Sodium Laurilsulfate ; Dodecyl Sodium Sulfate ; Lauryl Sulfate Sodium Salt ; SDS ; Sodium

Test	Specification	
	Min	Max
TOTAL ALCOHOLS	59.0%	
ASSAY	85.0%	
ALKALINITY	TO PASS TEST	
HEAVY METALS (as Pb)		0.002%
SODIUM CHLORIDE AND SODIUM SULFATE		8.0%
UNSULFATED ALCOHOLS (NON-ESTERIFIED ALCOHOLS)		4.0%
WATER		5.0%
RESIDUAL SOLVENTS	TO PASS TEST	
IDENTIFICATION	TO PASS TEST	
RETEST DATE		

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

SAFETY DATA SHEET

Preparation Date: 5/7/2014

Revision Date: 2/1/2016

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: SO180
Product Name: SODIUM LAURYL SULFATE, NF, EP, BP, JP

Other means of identification

Synonyms: Sodium dodecyl sulfate; Aquarex methyl;
Dodecyl alcohol, hydrogen sulfate, sodium salt;
Dodecyl sulfate sodium; Drefit; Duponal; Gardinal;
Irium; Lauryol Sodium Sulfate;
Lauryl sulfate, sodium salt; Melanol CL;
Perlandrol L; Sodium n-dodecyl sulfate;
Sodium Lauryl Sulphate; Sodium monododecyl sulfate;
Sodium monolauryl sulfate;
Stepanol ME; Standapol WAQ;
Stepanol WAQ; Witcolate C, Witcolate A

CAS #: 151-21-3
RTECS # WT1050000
CI#: Not available

Recommended use of the chemical and restrictions on use

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

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000
<https://www.spectrumchemical.com>

Order Online At:

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 by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements**Danger****Hazard statements**

Harmful if swallowed
Toxic in contact with skin
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
May form combustible dust concentrations in air

**Hazards not otherwise classified (HNOC)**

Not Applicable

Other hazards

Toxic to aquatic life with long lasting effects
Toxic to aquatic life

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

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. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician 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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Sodium Lauryl Sulfate 151-21-3	151-21-3	100

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:

Toxic in contact with skin. Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Get medical attention. Call a physician or Poison Control Centre immediately.

Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention.

Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Harmful if swallowed. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

Causes eye irritation. Causes skin irritation. Ingestion may cause nausea, vomiting, and diarrhea. May cause bloating. Somnolence. Dust is irritating to respiratory tract. May cause contact dermatitis.

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically

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:

Carbon dioxide (CO₂). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon monoxide; Carbon dioxide

Specific hazards:

May be combustible at high temperatures
Avoid generating dust
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

Special Protective Actions for Firefighters

Specific Methods: No information available.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Avoid dust formation. Avoid dispersal of dust in the air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Nonsparking tools should be used.

Environmental precautions Prevent further leakage or spillage. Prevent entry into waterways, sewers, basements or confined areas.

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. Use only non-sparking tools. 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. Minimize dust generation and accumulation. Avoid dust formation. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. All equipment used when handling the product must be grounded. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. 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 vapours/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.

Incompatible Materials:

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

U.S Occupational Exposure Limits: Not determined

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Lauryl Sulfate 151-21-3	None	None	None	None

Canada

Canada Occupational Exposure Limits: Not determined

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Lauryl Sulfate 151-21-3	None	None	None	None

Australia and Mexico

Occupational Exposure Limits for Australia and Mexico: Not determined

Components	Australia	Mexico
Sodium Lauryl Sulfate 151-21-3	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. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment) It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles.
- Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.
- Respiratory protection:** Wear respirator with dust filter.
- 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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.	Appearance: Powder.	Color: White. Light yellow.
Odor: Faint odor of fatty substances.	Taste No information available	Formula: C12-H25-O4-S-Na
Molecular/Formula weight: 288.38	Flammability: No information available	Flash point (°C): No data available
Flashpoint (°C/°F): No information available.	Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available
Lower Explosion Limit (%): No information available	Upper Explosion Limit (%): No information available	pH: No information available
Melting point/range(°C/°F): 204-207 °C/399.2-404.6 °F	Boiling point/range(°C/°F): No information available	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Density (g/cm3): No information available	Specific gravity: 0.4-0.48
Vapor pressure @ 20°C (kPa): No information available	Evaporation rate: 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): 1.6
Viscosity: No information available	Miscibility: No information available	Solubility: Soluble in Water Solubility in Water: 150 g/L at 20 °C

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Avoid dust formation. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Incompatible materials.

Incompatible Materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Sulphur oxides. Sodium oxides.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product code: SO180

Product name: SODIUM LAURYL
SULFATE, NF, EP, BP, JP

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Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Sodium Lauryl Sulfate - 151-21-3

LD50/oral/rat = 1288 mg/kg Oral LD50 Rat (RTECS)
977 mg/kg (LOLI and European Commission IUCLID dataset)
LD50/oral/mouse = No information available
LD50/dermal/rat = No information available
LD50/dermal/rabbit = 580 mg/kg Dermal LD50Rabbit
LC50/inhalation/rat = >3900 mg/m³ Inhalation LC50 Rat 1 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 977mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 580mg/kg

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 = >3900mg/m³ (1-hr)

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Toxic in contact with skin. Causes skin irritation.

Eye Contact: Causes eye irritation.

Inhalation Irritating to respiratory system. Symptoms may include coughing and shortness of breath. May cause sore throat.

Ingestion Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting, diarrhea. May cause bloating. May affect behavior/central nervous system (somnolence).

Aspiration hazard No information available

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

Chronic Toxicity Prolonged or repeated ingestion may affect the liver
Prolonged or repeated skin contact may cause dryness of the skin
Prolonged skin contact may cause skin irritation and/or dermatitis

Sensitization: No information available

Mutagenic Effects: May affect genetic material
Mutations in microorganisms

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Sodium Lauryl Sulfate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: May cause adverse developmental effects based on animal data
Increased rates of fetal anomalies and fetal death were reported in association with maternal toxicity among the offspring of pregnant mice treated orally with 200 mg/kg/day or topically with 170 to 1700 mg/kg/day of Sodium Lauryl Sulfate (REPROTOX)
Teratogenic Effects: No information on developmental toxicity effects on humans was found
No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory system. lungs.
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Sodium Lauryl Sulfate - 151-21-3

Freshwater Algae Data: 3.59 - 15.6 mg/L EC50 *Pseudokirchneriella subcapitata* 96 h
30 - 100 mg/L EC50 *Desmodesmus subspicatus* 96 h
117 mg/L EC50 *Pseudokirchneriella subcapitata* 96 h
53 mg/L EC50 *Desmodesmus subspicatus* 72 h

Sodium Lauryl Sulfate - 151-21-3

Freshwater Fish Species Data:	10.2 - 22.5 mg/L LC50 Pimephales promelas 96 h semi-static 1 10.8 - 16.6 mg/L LC50 Poecilia reticulata 96 h static 1 13.5 - 18.3 mg/L LC50 Poecilia reticulata 96 h semi-static 1 15 - 18.9 mg/L LC50 Pimephales promelas 96 h static 1 22.1 - 22.8 mg/L LC50 Pimephales promelas 96 h static 1 4.06 - 5.75 mg/L LC50 Lepomis macrochirus 96 h static 1 4.2 - 4.8 mg/L LC50 Lepomis macrochirus 96 h flow-through 1 4.3 - 8.5 mg/L LC50 Oncorhynchus mykiss 96 h static 1 5.8 - 7.5 mg/L LC50 Pimephales promelas 96 h static 1 6.2 - 9.6 mg/L LC50 Pimephales promelas 96 h 1 8 - 12.5 mg/L LC50 Pimephales promelas 96 h static 1 9.9 - 20.1 mg/L LC50 Brachydanio rerio 96 h semi-static 1 1.31 mg/L LC50 Cyprinus carpio 96 h semi-static 1 4.2 mg/L LC50 Oncorhynchus mykiss 96 h 1 4.5 mg/L LC50 Lepomis macrochirus 96 h 1 4.62 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1 7.97 mg/L LC50 Brachydanio rerio 96 h flow-through 1 1.8 mg/L EC50 Daphnia magna 48 h
Water Flea Data:	
Persistence and degradability:	No information available
Bioaccumulative potential:	Potential for bioconcentration in aquatic organisms is moderate.
Mobility:	Expected to be immobile in soil based on estimated Koc.

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	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Lauryl Sulfate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:	UN2811
Proper Shipping Name:	Toxic solids, organic, n.o.s.
Hazard Class:	6.1
Subsidiary Risk:	No information available
Packing Group:	III
ERG No:	154
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Symbol(s):	G

TDG (Canada)

Product code: SO180

Product name: SODIUM LAURYL
SULFATE, NF, EP, BP, JP

14. TRANSPORT INFORMATION

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

ADR

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: 6.1
Packing Group: III
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

IATA

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Sodium Lauryl Sulfate	Present	Present KE-21884	Present	Present (2)-1679 (2)-1675	Present	Present	Present 205-788-1

U.S. Regulations

Sodium Lauryl Sulfate

FDA - Direct Food Additives 21 CFR 172.210 21 CFR 172.822

FDA - 21 CFR - Total Food Additives 172.210 172.822 175.105 175.300 175.320 176.170 176.180 176.210 177.1200 177.1210 177.1630 177.2600 177.2800 178.1010 178.3400 179.45

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

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

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

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Lauryl Sulfate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	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 <i>de minimis</i>
Sodium Lauryl Sulfate	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sodium Lauryl Sulfate	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

D2B Toxic materials

Sodium Lauryl Sulfate

D2B

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.

Components	WHMIS Ingredient Disclosure List -
Sodium Lauryl Sulfate	1 %

Inventory

Product code: SO180

Product name: SODIUM LAURYL
SULFATE, NF, EP, BP, JP

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Components	Canada (DSL)	Canada (NDSL)
Sodium Lauryl Sulfate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Lauryl Sulfate	Not listed	Not listed

EU Classification

R-phrases(s)

R21/22 - Harmful in contact with skin and if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

S -phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Lauryl Sulfate		No information	

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

Indication of danger:

Xn - Harmful.

Xi - Irritant.



16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: 5/7/2014
Revision Date: 2/1/2016
Prepared by: Sonia Owen

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



Manufacturer

Product Covered: SO180, Sodium Lauryl Sulfate, NF, EP, BP, JP

Spectrum takes ownership as the manufacturer for the Spectrum product listed above and provides full quality assurance, customer service, and technical product support.

While information concerning the raw material manufacturer of our starting materials is considered proprietary, such information can be made available upon request contingent on demonstration of business volume justification and successful execution of confidential disclosure agreement (CDA).

Requests for disclosure of proprietary raw material manufacturer information may be submitted to the assigned account representative for consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wang", with a large, sweeping loop at the end.

Alan Wang, MSQA, ASQ CQA
Senior Manager, Global Supplier Quality Assurance
qualityassurance@spectrumchemical.com

6.Apr.2016

Certificate of Registration

Intertek

This is to certify that the quality management system of

Spectrum Chemicals and Laboratory Products, Inc

Main Site: 14422 South San Pedro Street, Gardena, California, 90248, USA

Additional Sites: 13915 South Main Street, Los Angeles, California, 90061, USA

755 Jersey Avenue, New Brunswick, New Jersey, 08901, USA

769 Jersey Avenue, New Brunswick, New Jersey, 08901, USA

7400 North Oracle Road, Suite 221, Tucson, Arizona, 85704, USA

has been assessed and registered by Intertek as conforming to the requirements of

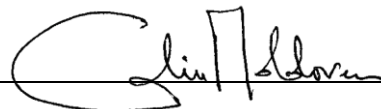
ISO 9001:2008

The quality management system is applicable to

California and New Jersey sites: The manufacture and distribution of specialty fine chemicals, solutions, equipment, supplies and products for the laboratory, pharmaceutical, food, healthcare, cosmetic, fragrance, biotechnology, environmental and process industries.

Arizona site: Supporting Spectrum's two manufacturing facilities by: selecting and qualifying distributors of Laboratory and Safety Equipment; processing bids and quotes to generate new sales opportunities; sourcing bulk chemicals in support of bulk bids and quotes; assisting production operations through order expediting and IT infrastructure support.

Certificate Number: 94-316m-01
Initial Certification Date: 27 December 1994
Certificate Issue Date: 29 January 2016
Certificate Expiry Date: 14 September 2018



Calin Moldovean, President
Intertek Testing Services NA, Inc.
900 Chelmsford Street, Suite 301-3, Lowell, MA, USA



In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone.

The certificate remains the property of Intertek, to whom it must be returned upon request.

CT-ISO 9001-2008-ANAB-EN-LT-L-26.jun.15

Certificate of Registration

Intertek

This is to certify that the quality management system of

Spectrum China Ltd.

Building A20, No. 3802, Shengang Road, Songjiang District, Shanghai, China

has been assessed and registered by Intertek as conforming to the requirements of

ISO 9001: 2008

The quality management system is applicable to:

Provision of service of purchase, testing and sales for chemical products, repacking of non-hazardous chemical products.

Organization Code: 77762704-8
Certificate Number: 111310001-01
Certificate Issue Date: 17 November 2015
Certificate Expiry Date: 14 September 2018



014

Authorised Signature: Calin Moldovean – President, Business Assurance
Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone.

The annual validity of the certificate can also be checked through the website <http://www.cnca.gov.cn> of CNCA in China.



The certificate remains the property of Intertek, to whom it must be returned upon request.



March 28, 2016

Certificate of cGMP

Dear Valued Customer:

Spectrum Chemicals and Laboratory Products certify that our USP, NF, FCC, EP, BP, JP, and food grade products are 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.

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:	<u>2020632</u>
Spectrum-New Brunswick, NJ:	<u>2246824</u>
Spectrum -Shanghai, China:	<u>3006174778</u>

Thank you for your interest with Spectrum products. Please feel free to contact the Quality Assurance department at 310-516-8000 or via email at qualityassurance@spectrumchemical.com if we may be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Michelle Weston".

Michelle Weston
Quality Assurance Specialist



March 31, 2016

Certificate of cGMP

Dear Valued Customer:

Spectrum Chemicals and Laboratory Products certify 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: 2020632
Spectrum-New Brunswick, NJ: 2246824
Spectrum-Shanghai, China: 3006174778

Thank you for your interest with Spectrum products. Please feel free to contact the Quality Assurance department at 310-516-8000 or via email at qualityassurance@spectrumchemical.com if we may be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Michelle Weston".

Michelle Weston
Quality Assurance Specialist



March 31, 2016

Re: Sodium Lauryl Sulfate, NF, EP, BP, JP- SO180

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

We at Spectrum Chemical Mfr. Corp. understand the concern regarding Bovine Spongiform Encephalopathy (BSE). Please be assured that the chemical

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

is BSE/TSE free.

If you have any further questions, please contact Tech Services at (310) 516-8000 Extension 5471, or by email at techservices@spectrumchemical.com.

Sincerely,

Darlene Dagdag- Lyudmirskiy
Technical Services
Spectrum Chemical Mfr. Corp.

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



March 31, 2016

Re: Sodium Lauryl Sulfate, NF, EP, BP, JP - SO180

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

We at Spectrum Chemical Mfr. Corp. understand the concern regarding the presence of allergens in raw materials. Please be assured that the following chemical does not contain (Milk, Egg, Fish, Crustacean Shellfish, Tree Nuts, Wheat, Peanut and Soy.)

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

If you have any further questions, please contact Tech Services at (310) 516-8000 Extension 5471, or by email at techservices@spectrumchemical.com.

Sincerely,

Darlene Dagdag- Lyudmirskiy
Technical Services
Spectrum Chemical Mfr. Corp.

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



April 1, 2016

Re: Sodium Lauryl Sulfate, NF, EP, BP, JP - SO180

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

We at Spectrum Chemical Mfg. Corp. understand the concern regarding Aflatoxins in raw materials. Sodium Lauryl Sulfate, NF, EP, BP, JP is not manufactured from or with aflatoxin. Please note that while we do not anticipate the presence of aflatoxin, Sodium Lauryl Sulfate, NF, EP, BP, JP is not analyzed for the presence of this material

If you have any further questions, please contact Tech Services at (310) 516-8000 Extension 5471, or by email at techservices@spectrumchemical.com.

Sincerely,

Darlene Dagdag-Lyudmirskiy
Technical Services
Spectrum Chemical Mfr. 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.

A **DANGER**

B 

C **Toxic in contact with skin • Harmful if swallowed • Causes serious eye irritation • Causes skin irritation • May cause respiratory irritation • May form combustible (explosive) dust-air mixtures.**

D **S0180**

E **Sodium Lauryl Sulfate**
(Sodium Laurilsulfate;
Dodecyl Sodium Sulfate)
N.F., E.P., B.P., J.P.

F **1 KG**

G **CAS 151-21-3**

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

I **DOT:** UN2811, Toxic solid, organic, n.o.s. (sodium lauryl sulfate), 6.1, PG III

J **Chemical Emergency: (800)424-9300**
www.SpectrumChemical.com

K **C₁₂H₂₅O₄SNa** **F.W. 288.38**

L **KEEP FROM CHILDREN**

M **Lot No. 062233**

N **SPECTRUM CHEMICAL MFG. CORP.**
Gardena, CA 90248 • New Brunswick, NJ 08901

This product is a mixture of sodium alkyl sulfates consisting chiefly of sodium lauryl sulfate [CH₃(CH₂)₁₀CH₂OSO₃Na].

Total Alcohols Min. 59.0%
Assay Min. 85.0%

MAXIMUM LIMITS

Alkalinity To pass test
Heavy Metals (as Pb) 0.002%
Sodium Chloride and Sodium Sulfate 8.0%
Unsulfated Alcohols (non-esterified alcohols) 4.0%
Water 5.0%
Residual Solvents To pass test

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

- | | | |
|---|--|---|
| A Bar Code | F Size/Quantity | K Empirical Formula, Formula Weight and Technical Specifications Panel |
| B GHS Hazard Pictograms | G Chemical Abstracts Service (CAS) Registry Number | L Expiration Information |
| C Warning, Safety Data and Precautionary Information | H Caution Information | M Lot Number |
| D Product Catalog Number | I DOT Shipping Information | |
| E Item Name, Form, Grade | J Toll-Free 24-Hour Chemical Emergency Telephone Number | |
| N Storage Color Band | | |

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

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

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

Item Number	SO180	Lot Number	1EE0974
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

Test	Specification		Result
	min	max	
TOTAL ALCOHOLS	59.0%		65.60 %
ASSAY	85.0%		98.94 %
ALKALINITY	TO PASS TEST		PASSES TEST
HEAVY METALS (as Pb)		0.002%	< 0.002 %
SODIUM CHLORIDE AND SODIUM SULFATE		8.0%	0.75 %
UNSULFATED ALCOHOLS (NON-ESTERIFIED ALCOHOLS)		4.0%	0.42 %
WATER		5.0%	0.55 %
RESIDUAL SOLVENTS	TO PASS TEST		NO RESIDUAL SOLVENTS USED
IDENTIFICATION	TO PASS TEST		PASSES TEST
RETEST DATE			10-APR-2018
APPEARANCE			WHITE POWDER
DATE OF MANUFACTURE			10-APR-2015

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



Certificate of Analysis Results Certified By:



Adan Hernandez
Quality Control Manager
Spectrum Chemicals & Laboratory Products

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

Item Number	SO180	Lot Number	2FA0406
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

Test	Specification		Result
	min	max	
TOTAL ALCOHOLS	59.0%		65.03 %
ASSAY	85.0%		98.17 %
ALKALINITY	TO PASS TEST		PASSES TEST
HEAVY METALS (as Pb)		0.002%	<0.002 %
SODIUM CHLORIDE AND SODIUM SULFATE		8.0%	0.02 %
UNSULFATED ALCOHOLS (NON-ESTERIFIED ALCOHOLS)		4.0%	0.35 %
WATER		5.0%	1.0 %
RESIDUAL SOLVENTS	TO PASS TEST		NO RESIDUAL SOLVENTS USED
IDENTIFICATION	TO PASS TEST		PASSES TEST
APPEARANCE			WHITE POWDER
DATE OF MANUFACTURE			17-AUG-2015

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ

Certificate of Analysis Results Certified By:



Mulbah F. Dwanah
Laboratory Supervisor
Spectrum Chemicals & Laboratory Products



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

January 26, 2016

RE: Lot Numbering System

Dear Valued Customer:

This letter is to inform you of Spectrum Chemicals and Laboratory Products' Lot Numbering System. The system is based on an alpha-numerical sequence which provides the month, year and location of production.

The lot numbering system utilized until 2010 is a sequence of **six characters**, two letters followed by four numbers. The first letter represents the year, for example, Y denotes 2009 and Z denotes 2010. The second letter represents the month and site, for example, A-L denotes January through December at Spectrum's Gardena, CA facility, while M-X denotes January through December at the New Brunswick, NJ facility. The following four numbers are sequentially assigned.

Example: ZI0928 = The 928th material produced in California in September 2010

The lot numbering system utilized for 2011 and forward, is a sequence of **seven characters**. The first character, a number, represents the production facility:

- 1 = Gardena, CA Facility
- 2 = New Brunswick, NJ Facility
- 3 = China Facility

The second character, a letter, represents the year. For example, A denotes 2011 and B denotes 2012. The third character, a letter, represents the month, with A denoting January and L denoting December. The following four numbers are sequentially assigned.

Example: 2AA0706 = The 706th material produced in New Jersey in January 2011

Thank you for your interest with Spectrum products. Please feel free to contact us at 310-516-8000 or via email at qualityassurance@spectrumchemical.com if we may be of further assistance.

Sincerely,



Michael Dang
Manager, GMP Compliance



Stability – Shelf Life Guidance

Product Covered: SO180, Sodium Lauryl Sulfate, NF, EP, BP, JP

Spectrum Chemical's manufacturing partner has assigned the following shelf life guidance for the product listed above.

The product, SO180, Sodium Lauryl Sulfate, NF, EP, BP, JP, is assigned indefinite shelf life from date of manufacturing. The quality and integrity of the chemical depends on the handling and storage conditions. Please refer to the Safety Data Sheet for proper storage and handling procedures.

Adan R. Hernandez
Quality Control Manager

A handwritten signature in blue ink, appearing to read "Adan R. Hernandez".

Corporate Headquarters
769 Jersey Avenue
New Brunswick, NJ 08901-3605