



# Scientific Documentation

SO182, Sodium Metabisulfite, Granular, NF,  
EP, BP, JP

Not appropriate for regulatory submission.  
Please visit [www.spectrumchemical.com](http://www.spectrumchemical.com) or  
contact Tech Services for the most up-to-date  
information contained in this information  
package.

## **Spectrum Chemical Mfg Corp**

769 Jersey Avenue  
New Brunswick, NJ 08901  
Phone 732.214.1300

Ver4.02 17.May.2016



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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 black ink, appearing to read "Alan Wang", with a large, sweeping flourish at the end.

Alan Wang, MSQA, ASQ CQA  
Senior Manager of Technical Services  
[techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com)

17.May.2016

**SO182**, Sodium Metabisulfite, Granular, NF, EP, BP, JP

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CHEMICAL MFG CORP



## Specification for Sodium Metabisulfite, Granular, NF, EP, BP, JP (SO182)

Item Number	SO182
Item	Sodium Metabisulfite, Granular, NF, EP, BP, JP
CAS Number	7681-57-4
Molecular Formula	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>
Molecular Weight	190.11
MDL Number	
Synonyms	Disodium Disulfite ; Disodium Pyrosulfite ; Sodium Metabisulphite ; Sodium Pyrosulfite

Test	Specification	
	Min	Max
ASSAY (SO <sub>2</sub> )	65.0 - 67.4%	
ASSAY (Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> )	95.0 - 100.5%	
pH OF A 5% SOLUTION	3.5 - 5.0	
CHLORIDE (Cl)		0.05%
IRON (Fe)		20 ppm
THIOSULFATE (S <sub>2</sub> O <sub>3</sub> )	TO PASS TEST	
HEAVY METALS (as Pb)		20 ppm
APPEARANCE OF SOLUTION	TO PASS TEST	
ARSENIC (As)		4 ppm
RESIDUAL SOLVENTS	TO PASS TEST	
IDENTIFICATION	TO PASS TEST	
EXPIRATION 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: 8/4/2015

Revision Date: 8/4/2015

Revision Number: G1

### 1. IDENTIFICATION

**Product identifier**

**Product code:** SO182  
**Product Name:** SODIUM METABISULFITE, GRANULAR, NF, EP, BP, JP

**Other means of identification**

**Synonyms:** Disodium disulfite  
 Disodium metabisulfite  
 Disodium pyrosulfite  
 Sodium Metabisulfite  
 Sodium pyrosulfite  
 Disulfurous acid, disodium salt  
 Sodium metabisulphite

**CAS #:** 7681-57-4  
**RTECS #** UX8225000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Food preservative. Antioxidant. In pharmaceuticals.  
**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 by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Category 1
Skin sensitization	Category 1

**Label elements**

## Danger

### Hazard statements

Harmful if swallowed  
Causes serious eye irritation  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

Harmful to aquatic life with long lasting effects  
Harmful 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  
Avoid breathing dust/fume/gas/mist/vapors/spray  
In case of inadequate ventilation wear respiratory protection  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves/protective clothing/eye protection/face protection

### 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 or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

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

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Sodium Metabisulfite 7681-57-4	7681-57-4	100	*

## 4. FIRST AID MEASURES

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## 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)

#### **Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

#### **Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention. If symptoms persist, call a physician.

#### **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**

Causes serious eye irritation. May cause sensitization by inhalation and skin contact. May cause allergic contact dermatitis. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause irritation of respiratory tract. Coughing and wheezing. Inhalation of high concentrations of vapors may cause central nervous system depression. Harmful if swallowed. Irritating to mouth, throat and stomach. Seizures. Central nervous system depression. May cause cardiovascular effects.

### 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:**

The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire. If it is involved in a fire, use dry chemical, dry sand or carbon dioxide.

#### **Unsuitable Extinguishing Media:**

If it is involved in fire, do not use water on material itself.

### Specific hazards arising from the chemical

#### **Hazardous Combustion Products:**

If involved, the following can be released: Sulfur oxides, Sodium oxides, Sodium sulfate

#### **Specific hazards:**

No information available.

### 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:** Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains. Do not let this chemical enter the environment.

### 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. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Technical Measures/Precautions:

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

#### Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not smoke. Do not breathe vapours/dust. Use only in well-ventilated areas. Keep container tightly sealed. Keep away from sources of ignition - no smoking. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### Technical Measures/Storage Conditions:

Sensitive to light. Store in light-resistant containers. Air sensitive. 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:

Sodium Nitrite. Oxidizing agents. Strong acids. Strong bases. Aluminum powder. Combustible materials. Moisture.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Metabisulfite 7681-57-4	None	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	None

##### Canada

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Metabisulfite 7681-57-4	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWAEV

##### Australia and Mexico

Components	Australia	Mexico
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Sodium Metabisulfite 7681-57-4	5 mg/m <sup>3</sup> TWA	None
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### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas. 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:** Chemical resistant apron. Gloves. Long sleeved clothing.
- Respiratory protection:** Effective dust mask. or. Wear respirator with dust filter. 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. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid.	<b>Appearance:</b> Crystalline powder. Crystalline granules. Granular.	<b>Color:</b> White to yellowish.
<b>Odor:</b> Sulfur dioxide odor.	<b>Taste</b> No information available	<b>Formula:</b> Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>
<b>Molecular/Formula weight:</b> 190.11 g/mol	<b>Flammability:</b> No information available	<b>Flash point (°C):</b> No data available
<b>Flashpoint (°C/°F):</b> No information available.	<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available
<b>Lower Explosion Limit (%):</b> No information available	<b>Upper Explosion Limit (%):</b> No information available	<b>pH:</b> 4.3 (1%)
<b>Melting point/range(°C/°F):</b> No information available	<b>Boiling point/range(°C/°F):</b> No information available	<b>Decomposition temperature(°C/°F):</b> >150°C/302°F
<b>Bulk density:</b> 1100-1200 kg/m <sup>3</sup>	<b>Density (g/cm<sup>3</sup>):</b> 1.44	<b>Specific gravity:</b> No information available
<b>Vapor pressure @ 20°C (kPa):</b> No information available	<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available
<b>VOC content (g/L):</b> No information available	<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> -3.7
<b>Viscosity:</b> No information available	<b>Miscibility:</b> No information available	<b>Solubility:</b> Freely soluble in water Solubility in Water: 66.7 g/100 g water @ 25 deg. C.; 39.5 wt% @ 20 deg. C; 41.6 wt% @ 40 deg. C; 44.6 wt% @ 60 deg. C  Freely soluble in glycerol Slightly soluble in alcohol

## 10. STABILITY AND REACTIVITY

### Reactivity

Contact with moisture or water will release Sulfur dioxide gas  
Incompatible with oxidizing agents such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine, fluorine.  
Incompatible with strong acids such as hydrochloric, sulfuric, and nitric.  
Incompatible with strong bases such as sodium hydroxide, potassium hydroxide

### Chemical stability

**Stability:** Sensitive to air. Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Exposure to air. Exposure to moisture. Exposure to light. Incompatible materials.

**Incompatible Materials:** Sodium Nitrite. Oxidizing agents. Strong acids. Strong bases. Aluminum powder. Combustible materials. Moisture.

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**Hazardous decomposition products:** Sodium oxides. Sulfur oxides. Sodium sulfate. Decomposes on heating with ultimate formation of sodium sulfate. Slowly oxidized to the sulfate on exposure to air and moisture.

**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:**

Inhalation. Ingestion.

**Acute Toxicity**

**Component Information**

*Sodium Metabisulfite - 7681-57-4*

**LD50/oral/rat =** 1310 mg/kg Oral LD50 Rat (Loli)

1131 mg/kg oral LD50 rat (RTECS)

1540 mg/kg oral LD50 rat

**LD50/oral/mouse =** No information available

**LD50/dermal/rat =** > 2000 mg/kg dermal LD50 rat (RTECS)

**LD50/dermal/rabbit =** No information available

**LC50/inhalation/rat =** No information available

**LC50/inhalation/mouse =** No information available

**Other LD50 or LC50 information =** > 1000 mg/kg dermal LD50 guinea pig

**Product Information**

**LD50/oral/rat =**

**VALUE- Acute Tox Oral =** No information available

**LD50/oral/mouse =**

**Value - Acute Tox Oral =** No information available

**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

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## Symptoms

<b>Skin Contact:</b>	May cause skin irritation.
<b>Eye Contact:</b>	Causes serious eye irritation. Eye contact may result in redness or pain.
<b>Inhalation</b>	May cause irritation of the respiratory tract and mucous membranes irritation. Symptoms may include coughing and wheezing.
<b>Ingestion</b>	Harmful if swallowed. May cause gastrointestinal tract irritation by liberation of Sulfurous Acid. Symptoms may include mouth, throat, stomach, abdominal pain, violent colic, possible gastric hemorrhaging, nausea, vomiting and diarrhea. May affect behavior/central nervous system and cause central nervous system depression/seizures. It may also affect the cardiovascular system (hypotension, tachycardia, cardiovascular collapse). Ingestion of sulfite compounds may cause allergic/hypersensitivity/anaphylactoid reactions in sensitive individuals and some asthmatics. Some asthmatics are said to be sensitive to minute amounts of sulfites in foods. It may cause a worsening of asthma in asthmatics. Individuals sensitive to sulfides may experience stomach upset, tightness in the chest, or wheezing.
<b>Aspiration hazard</b>	No information available

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

<b>Chronic Toxicity</b>	Prolonged or repeated inhalation may cause bronchitis with coughing, phlegm, and/or shortness of breath. Prolonged or repeated ingestion may affect the liver, urinary system, and metabolism. Prolonged and repeated ingestion may cause weight loss or anorexia. Prolonged or repeated exposure may cause allergic respiratory and skin reactions. Prolonged or repeated inhalation may cause asthma-like allergy and asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness. Skin: Sensitizer. May cause allergic skin reaction (allergic contact dermatitis).
<b>Sensitization:</b>	May cause sensitization by inhalation and skin contact
<b>Mutagenic Effects:</b>	No information available
<b>Carcinogenic effects:</b>	Not classifiable as a human carcinogen. Not classifiable as to its carcinogenicity to humans.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Sodium Metabisulfite	Group 3 - Not Classifiable - Monograph 54 [1992] Sulfur dioxide and some sulfites bisulfites and metabisulfites	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)  
IARC (International Agency for Research on Cancer)*

<b>Reproductive toxicity</b>	No data is available
<b>Reproductive Effects:</b>	No information available

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**Developmental Effects:** No information available  
**Teratogenic Effects:** Teratogenicity was found only in animal studies when given in large doses to produce maternal toxicity. Not found teratogenic at lower doses. No human data 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:** Aquatic environment.

*Sodium Metabisulfite - 7681-57-4*

**Freshwater Algae Data:** 40 mg/L EC50 *Desmodesmus subspicatus* 96 h  
 48 mg/L EC50 *Desmodesmus subspicatus* 72 h

**Freshwater Fish Species Data:** 32 mg/L LC50 *Lepomis macrochirus* 96 h static 1  
 150-220 mg/L LC50 *Oncorhynchus mykiss* 96 h

**Water Flea Data:** 89mg/L EC50 *Daphnia magna* 48 h

<b>Microtox Data</b>	56 mg/L EC50 <i>Pseudomonas putida</i> 17 h
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**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**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. Do not re-use empty containers Dispose of as unused product.

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Metabisulfite	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**  
**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available

**Product code:** SO182

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## 14. TRANSPORT INFORMATION

**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** None  
**ERG No:** No information available  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** 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  
**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  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** 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  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant** No information available  
**MFAG:** No information available  
**Maximum Quantity:** 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  
**Classification Code:** No information available  
**Description:** 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  
**Description:** No information available

### IATA

**Product code:** SO182

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**14. TRANSPORT INFORMATION**

**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  
**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 Metabisulfite	Present	Present KE-12701	Present	Present (1)-502	Present	Present	Present 231-673-0

**U.S. Regulations***Sodium Metabisulfite*

**Massachusetts RTK:** Present  
**New Jersey RTK Hazardous Substance List:** 1708  
**Pennsylvania RTK:** Present  
**Minnesota - Hazardous Substance List:** Present  
**California Directors List of Hazardous Substances:** Present  
**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 182.3766

**FDA - Direct Food Additives** 21 CFR 173.310

**FDA - 21 CFR - Total Food Additives** 173.310 182.3766

**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 Metabisulfite	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 Metabisulfite	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 Metabisulfite	Not Applicable	01/26/199406/30/1998

**Canada**

**Product code:** SO182

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**WHMIS hazard class:**

Non-controlled

**Sodium Metabisulfite**

Uncontrolled product according to WHMIS classification criteria

**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 Metabisulfite	1 %

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
Sodium Metabisulfite	Present	Not Listed

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

**EU Classification****R-phrase(s)**

R22 - Harmful if swallowed.

R31 - Contact with acids liberates toxic gas.

R41 - Risk of serious damage to eyes.

**S -phrase(s)**

S 2 - Keep out of the reach of children.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S39 - Wear eye/face protection.

S46 - If swallowed, seek medical advice immediately and show this container or label.

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Metabisulfite	Xn; R22 R31 Xi; R41	No information	S2 S26 S39 S46

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

**Indication of danger:**

Xn - Harmful.

Xi - Irritant.





## 16. OTHER INFORMATION

**Preparation Date:** 8/4/2015  
**Revision Date:** 8/4/2015  
**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: SO182, Sodium Metabisulfite, Granular, 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", is written over a light gray rectangular background.

Alan Wang, MSQA, ASQ CQA  
Senior Manager of Technical Services  
[techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com)

17.May.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

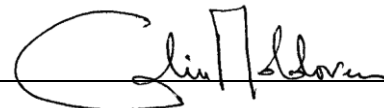
## ISO 9001:2008

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](mailto: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

A handwritten signature in black ink, appearing to read "Calin Moldovean".

*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](mailto: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](mailto: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



May 16, 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
SO182	Sodium Metabisulfite, Granular, 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](mailto:qualityassurance@spectrumchemical.com) if we may be of further assistance.

Sincerely,

Michelle Weston  
Quality Assurance Specialist



May 16, 2016

Re: Sodium Metabisulfite, Granular, NF, EP, BP, JP-SO182

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 Metabisulfite, Granular, NF, EP, BP, JP-SO182

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](mailto: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



May 16, 2016

Re: Sodium Metabisulfite, Granular, NF, EP, BP, JP-SO182

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; Shellfish; Sulfur dioxide and sulfites at concentrations of more than 10 mg/kg or 10 mg/liter expressed as SO<sub>2</sub>; Lupin; Tree nuts; Mollusks; Wheat; Peanuts; Soy; Cereals containing Gluten; Celery; Mustard; Sesame Seed).

Sodium Metabisulfite, Granular, NF, EP, BP, JP-SO182

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





May 16, 2016

Re: Sodium Metabisulfite, Granular, NF, EP, BP, JP-SO182

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. To the best of our knowledge, the product listed below is not contaminated with Aflatoxins. Aflatoxins are not used in production. The following product does not come in contact with Aflatoxins at any stage of production.

Sodium Metabisulfite, Granular, NF, EP, BP, JP-SO182

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

**C** **Harmful if swallowed • Causes serious eye irritation • May cause an allergic skin reaction • May cause allergy or asthma symptoms or breathing difficulties if inhaled.**

**B**

**E** **Do not eat, drink or smoke when using this product • Wear respiratory protection, eye protection, face protection, protective gloves, protective clothing • Avoid breathing dust • Wash face, hands and any exposed skin thoroughly after handling • Contaminated work clothing must not be allowed out of the workplace.**

**FIRST AID:** Call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. 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 SWALLOWED: Rinse mouth.

**L** **KEEP FROM CHILDREN**

**SPECTRUM**<sup>®</sup>

**S0182** **D** **F** **12 KG**

**Sodium Metabisulfite**  
(Disodium Disulfite; Disodium Pyrosulfite; Sodium Metabisulphite; Sodium Pyrosulfite)

Granular

N.F., E.P., B.P., J.P.

**G** CAS 7681-57-4

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

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

[www.SpectrumChemical.com](http://www.SpectrumChemical.com)

**K** **Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>** **F.W. 190.11**

Assay (SO <sub>2</sub> )	65.0-67.4%
Assay (Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> )	95.0-100.5%
pH (5% Solution)	3.5-5.0

**MAXIMUM LIMITS**

Chloride (Cl)	0.05%
Iron (Fe)	20 ppm
Thiosulfate (S <sub>2</sub> O <sub>3</sub> )	To pass test
Heavy Metals (as Pb)	20 ppm
Appearance of Solution	To pass test
Arsenic	4 ppm
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.

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

**M** Lot No. 062233

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

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

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	SO182	Lot Number	1FC0402
Item	Sodium Metabisulfite, Granular, NF, EP, BP, JP		
CAS Number	7681-57-4		
Molecular Formula	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Molecular Weight	190.11

Test	Specification		Result
	min	max	
ASSAY (SO <sub>2</sub> )	65.0 - 67.4%		65.53 %
ASSAY (Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> )	95.0 - 100.5%		97.24 %
pH OF A 5% SOLUTION	3.5 - 5.0		4.48
CHLORIDE (Cl)		0.05%	<0.05 %
IRON (Fe)		20 ppm	<10 ppm
THIOSULFATE (S <sub>2</sub> O <sub>3</sub> )	TO PASS TEST		PASSES TEST
HEAVY METALS (as Pb)		20 ppm	<10 ppm
APPEARANCE OF SOLUTION	TO PASS TEST		PASSES TEST
ARSENIC (As)		4 ppm	<4 ppm
RESIDUAL SOLVENTS	TO PASS TEST		NO RESIDUAL SOLVENTS USED
IDENTIFICATION	TO PASS TEST		PASSES TEST
EXPIRATION DATE			27-DEC-2020
MANUFACTURE DATE			28-DEC-2015
APPEARANCE			WHITE GRANULES

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	SO182	Lot Number	2FC0234
Item	Sodium Metabisulfite, Granular, NF, EP, BP, JP		
CAS Number	7681-57-4		
Molecular Formula	Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>	Molecular Weight	190.11

Test	Specification		Result
	min	max	
ASSAY (SO <sub>2</sub> )	65.0 - 67.4%		65.53 %
ASSAY (Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> )	95.0 - 100.5%		97.24 %
pH OF A 5% SOLUTION	3.5 - 5.0		4.48
CHLORIDE (Cl)		0.05%	<0.05 %
IRON (Fe)		20 ppm	<10 ppm
THIOSULFATE (S <sub>2</sub> O <sub>3</sub> )	TO PASS TEST		PASSES TEST
HEAVY METALS (as Pb)		20 ppm	<10 ppm
APPEARANCE OF SOLUTION	TO PASS TEST		PASSES TEST
ARSENIC (As)		4 ppm	<4 ppm
RESIDUAL SOLVENTS	TO PASS TEST		NO RESIDUAL SOLVENTS USED
IDENTIFICATION	TO PASS TEST		PASSES TEST
EXPIRATION DATE			27-DEC-2020
DATE OF MANUFACTURE			28-DEC-2015
APPEARANCE			WHITE CRYSTALLINE POWDER

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 928<sup>th</sup> 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 706<sup>th</sup> 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](mailto:qualityassurance@spectrumchemical.com) if we may be of further assistance.

Sincerely,



Michael Dang  
Manager, GMP Compliance



## Stability – Shelf Life Guidance

Product Covered: SO182, Sodium Metabisulfite, Granular, NF, EP, BP, JP

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

The product, SO182, Sodium Metabisulfite, Granular, NF, EP, BP, JP, is assigned a 60 months 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 black ink, appearing to read "Adan R. Hernandez".

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