Dear Customer,

This File Contains Both The ANSI Material Safety Data Sheet and The GHS Safety Data Sheet For The Same Product

Spectrum is currently transitioning all chemical product labeling from the ANSI\textsuperscript{1} format to the GHS\textsuperscript{2} format (see note below). In order to ensure that you receive complete labeling during the transition, we have included both the ANSI MSDS and the GHS SDS in a single file. The ANSI MSDS is given first, followed by the GHS SDS. Please use whichever matches the container label.

**Why It Matters:**

The complete precautionary labeling for this chemical consists of BOTH the label on the container AND the matching Material Safety Data Sheet (for ANSI labels) or Safety Data Sheet (for GHS labels). Both elements of the labeling [Label + (M)SDS] are written to be read and understood together, so as to provide complete precautionary information. It is intended for you to read and understood BOTH before handling or using the chemical.

**Picking the Right One: 2 Easy Ways To Tell Whether Your Container Has an ANSI Label or a GHS Label**

1) GHS labels: any pictogram displayed in the upper left-hand corner will be inside a red diamond. ANSI labels: pictograms, if present, will be inside individual black boxes.

2) GHS labels: on the bottom of the right-hand panel of the label, locate the Lot Number. Directly to the left will be a string of control characters, followed by a single letter. For GHS labels, the string of characters will end in "GHS:"

---

**Label in ANSI Format**

\[ \text{CAUTION!} \]

\[ \begin{array}{c}
\text{SPECTRUM} \\
\text{BE159} \\
\text{Benzyl Benzoate} \\
\text{(Benzyl Alcohol/Phenylethyl Alcohol)} \\
\text{U.S.P.} \\
\text{E3132-01-4} \\
\text{SAFETY DATA SHEET} \\
\text{For manufacturing, processing and generating or storing, handling and transporting this material.} \\
\text{www.SpectrumChemical.com} \\
\text{SPECTRUM CHEMICAL MFG. CORP.} \\
\text{Corona, CA 92882 – New Brunswick, NJ 08905} \\
\end{array} \]

---

**CORPORATE OFFICES**

14422 South San Pedro Street
Gardena, California 90248

PHONE 310.516.8000

FAX 310.516.9843

AN ISO 9001:2008 REGISTERED COMPANY

www.spectrumchemical.com
Sincerely,

Regulatory Affairs

\[1\] American National Standards Institute
\[2\] Globally Harmonized System for Hazard Communication
# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="NFPA Rating" /></td>
<td><img src="image" alt="HMIS Rating" /></td>
<td><img src="image" alt="Eye Protection" /> <img src="image" alt="Face Protection" /> <img src="image" alt="Nimex" /> <img src="image" alt="Industrial Glove" /></td>
</tr>
</tbody>
</table>

**Product code:** S1144  
**Product Name:** SODIUM BENZOATE, POWDER, TECHNICAL  
**Chemical Name:** Benzoic acid, sodium salt  
**Synonyms:** Benzoate of soda  
**CAS #:** 532-32-1  
**RTECS #:** DH6650000  
**Formula:** C₇H₅O₂Na  
**CI#:** Not available  
**Supplier:** Spectrum Chemicals and Laboratory Products, Inc.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000  
**Order Online At:** [https://www.spectrumchemical.com](https://www.spectrumchemical.com)  
**Emergency Telephone Number:** CHEMTREC: 1-800-424-9300  
**Contact Person:** Regina Wachenheim (East Coast)  
**Contact Person:** Martin LaBenz (West Coast)

## 2. HAZARDS IDENTIFICATION

See Section 8.
2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
May cause skin and eye irritation
May cause irritation of respiratory tract

<table>
<thead>
<tr>
<th>Odor:</th>
<th>Physical state:</th>
<th>Appearance:</th>
<th>Color:</th>
</tr>
</thead>
</table>

OSHA Regulatory Status
This material is not considered hazardous by the OSHA Hazard Communication Standard (29 1910.1200)

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Potential Health Effects:

Skin Contact:
May cause skin irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Eye Contact:
May cause eye irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Inhalation:
May cause irritation of respiratory tract.

Ingestion:
May cause digestive (gastrointestinal) tract irritation. May cause nausea and vomiting. May cause mild stomach pain. May cause central nervous system effects. May affect respiration.

Chronic Potential Health Effects:

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogen Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate 532-32-1 (100)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Target Organs: No information available
Mutagenic Effects: May affect genetic material
Teratogenic Effects: No information available
Aggravated Medical Conditions: No information available

See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>532-32-1</td>
<td>100</td>
</tr>
</tbody>
</table>

Product code: S1144
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
4. FIRST AID MEASURES

General Advice: Poison information centres 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 irritation develops. Consult a physician if necessary.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs. 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. Consult a physician if necessary.

Notes to Physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashpoint (°C/°F)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flash Point Tested according to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Explosion Limit (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper Explosion Limit (%)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Autoignition Temperature (°C/°F): No information available

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Hazardous Combustion Products: Carbon monoxide; Carbon dioxide; Sodium oxides

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

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

Specific Methods: No information available.

6. ACCIDENTAL RELEASE MEASURES

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
Personal Precautions:
Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental Precautions:
No information available.

Methods for Cleaning Up:
Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

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

Storage

Technical Measures/Storage Conditions:
Hygroscopic. 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. Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

Personal Protective Equipment

Eye protection: Safety glasses. Safety glasses with side-shields.
Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection: Effective dust mask. 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.

National occupational exposure limits

United States
U.S Occupational Exposure Limits: Not determined
Canada
Canada Occupational Exposure Limits: Not determined

Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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</thead>
<tbody>
<tr>
<td>Sodium Benzoate 532-32-1</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>

Australia and Mexico
Occupational Exposure Limits for Australia and Mexico: Not determined

Components

<table>
<thead>
<tr>
<th>Components</th>
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<th>Mexico</th>
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</thead>
<tbody>
<tr>
<td>Sodium Benzoate 532-32-1</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.
Odor: Odorless.
Flash point (°C): No data available
Autoignition Temperature (°C/°F): No information available
pH: No information available
Decomposition temperature(°C/°F): No information available
Evaporation rate: No information available
Odor threshold (ppm): No information available
Solubility: Freely soluble in water

Appearance: Powder. Crystalline powder.
Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available
Melting point/range(°C/°F): >300 °C/>572 °F
Specific gravity: 1.44
Bulk density: No information available
Vapor density: 4.97
Partition coefficient (n-octanol/water): -2.13
Molecular/Formula weight: 144.11
Density (g/cm3): No information available
Vapor pressure @ 20°C (kPa): No information available
VOC content (g/L): No information available
Miscibility: No information available

10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions
Conditions to avoid: Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Sodium oxides.

Possibility of Hazardous Reactions: No information available

Polymerization: Hazardous polymerisation does not occur

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Sodium Benzoate - 532-32-1
- LD50/oral/rat = 2100 mg/kg Oral LD50 Rat (LOLI; European Chemicals Bureau IUCLID dataset)
- 4070 mg/kg (RTECS; European Chemicals Bureau IUCLID dataset)
- LD50/oral/mouse = 1600 mg/kg
- LD50/dermal/rat = No information available
- LD50/dermal/rabbit = No information available
- LC50/inhalation/rat = No information available
- LC50/inhalation/mouse = No information available
- Other LD50 or LC50 information = 2000 mg/kg Oral LD50 Rabbit

Product Information

- LC50/inhalation/rat No information available
- LC50/inhalation/mouse No information available
- LD50/dermal/rabbit No information available
- LD50/dermal/rat No information available
- LD50/oral/mouse = 1600mg/kg
- LD50/oral/rat = 2100mg/kg

Local Effects

Skin irritation: May cause skin irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Eye irritation: May cause eye irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Inhalation: May cause irritation of respiratory tract. Symptoms may include coughing and wheezing. May cause dyspnea (difficulty breathing or shortness of breath).

Ingestion: May be harmful if swallowed. May cause digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting. May cause mild stomach pain. May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect behavior/central nervous system (tremors). May affect behavior/central nervous system (convulsions). Sodium Benzoate in small doses, mixed with food, has not been found to cause any deleterious or poisonous action. Furthermore, in large doses, mixed with food, it has not been found to exert deleterious effects on general health, nor act as a poison. Single doses of 6 grams are generally tolerated in adults. However, Ingestion of very large amounts may cause the previously mentioned health effects.

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
Sensitization: No information available

Chronic Toxicity

Chronic Toxicity

Prolonged or repeated ingestion of large amounts of Sodium Benzoate may affect behavior/central nervous system (symptoms similar to acute exposure) as well as liver, blood (changes in serum composition (e.g. TP, bilirubin, cholesterol)), and urinary system. Ingestion of large amounts of benzoates (1 gram per kilogram of body weight per day) may also cause weight loss and have been associated with metabolic acidosis (a disturbance of the body acid-base balance in which there is excessive acidity of the blood), lactic acidosis, hypokalemia (low blood potassium levels), and hypocalcemia (low blood calcium levels. Repeated or prolonged skin contact may cause skin allergy (contact dermatitis). Repeated or prolonged ingestion of benzoates may cause allergic (anaphylactoid) reaction.

Carcinogenic effects: Not considered carcinogenic.

<table>
<thead>
<tr>
<th>Components</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA HCS - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects: May affect genetic material

Reproductive Effects: No information available

Teratogenic Effects: No information available

Target Organs: No information available

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: No information available

Ecotoxicity effects: Aquatic environment.

Aquatic toxicity:

*Sodium Benzoate* - 532-32-1

**Freshwater Fish Species Data:**
- 420 - 558 mg/L LC50 Pimephales promelas 96 h flow-through 1
- 100 mg/L LC50 Pimephales promelas 96 h static 1

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

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Product code: S1144  
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
- UN-No: Not regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: None
- Subsidiary Risk: Not applicable
- Marine Pollutant: No data available
- ERG No: No information available
- DOT RQ (lbs): No information available

TDG (Canada)
- 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
- Description: No information available

ADR
- UN-No: No information available
- 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
- Packing Group: No information available
- Subsidiary Risk: 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: No information available
- 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

Product code: S1144  
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>Philippines (PICCS)</th>
<th>KOREA KECL</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Present</td>
<td>Present</td>
<td>Present KE-02711</td>
<td>Present (3)-1293 (3)-1272 (3)-1076</td>
<td>Present</td>
<td>Present</td>
<td>Present 208-534-8</td>
</tr>
</tbody>
</table>

U.S. Regulations

Sodium Benzoate

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1733


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)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</tr>
</tbody>
</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
WHMIS hazard class:
Non-controlled

Sodium Benzoate
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.

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
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<td>Not Listed</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

R-phrase(s)
not determined

S -phrase(s)
none

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td></td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>

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

Indication of danger:
Not dangerous

16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1/Z129.1-2010 standards.

Preparation Date: 26-Feb-2014
Reason for revision: Not applicable
Prepared by: Sonia Owen
Literature reference: No information available

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) 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 MSDS. The physical properties reported in this MSDS 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 MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.
SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier
Product code: S1144
Product Name: SODIUM BENZOATE, POWDER, TECHNICAL

Other means of identification
Synonyms:
- Benzoate of soda
- Sodium Benzoic acid
- Benzoic acid, sodium salt
- Benzoate sodium

CAS #: 532-32-1
RTECS #: DH6650000
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: Antimicrobial. Preservative.
Uses advised against: No information available

Supplier:
Spectrum Chemicals and Laboratory Products, Inc.
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: Regina Wachenheim (East Coast)

2. HAZARDS IDENTIFICATION

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

Label elements
Not classified according to 2012 OSHA Hazard Communication Standard

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
May be harmful if swallowed
GHS Acute Oral Toxicity Category 5, which has not been adopted by OSHA

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>532-32-1</td>
<td>100</td>
<td>*</td>
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</tbody>
</table>

### 4. FIRST AID MEASURES

**First aid measures**

**General Advice:** Poison information centres 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 irritation develops. Consult a physician if necessary.

**Eye Contact:** Flush eye with water for 15 minutes. Get medical attention if irritation occurs. 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. Consult a physician if necessary.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause eye/skin irritation. May cause digestive (gastrointestinal) tract irritation. May cause nausea and vomiting.

**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; Sodium oxides

**Specific hazards:** May be combustible at high temperatures. 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. Avoid dust formation. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. 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. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

U.S Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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<tbody>
<tr>
<td>Sodium Benzoate - 532-32-1</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
**Canada**

Canada Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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<tbody>
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<td>Sodium Benzoate</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>532-32-1</td>
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</table>

**Australia and Mexico**

Occupational Exposure Limits for Australia and Mexico: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
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<td>None</td>
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<tr>
<td>532-32-1</td>
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<td></td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

Engineering measures to reduce exposure:

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

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

- **Eye protection:** Safety glasses. Safety glasses with side-shields.
- **Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.
- **Respiratory protection:** Effective dust mask. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder. Crystalline powder.</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Taste</td>
<td>Sweetish. Astringent.</td>
</tr>
<tr>
<td>Molecular/Formula weight</td>
<td>144.11</td>
</tr>
<tr>
<td>Flash point (%C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flashpoint (%C/F):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Stability:</td>
<td>Stable at normal conditions</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions:</td>
<td>Hazardous polymerization does not occur</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.</td>
</tr>
<tr>
<td>Hazardous decomposition products:</td>
<td>Carbon monoxide. Carbon dioxide. Sodium oxides.</td>
</tr>
<tr>
<td>Miscibility:</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Freely soluble in water. Solubility in Water: 556-630 g/l @ 20 °C</td>
</tr>
</tbody>
</table>

## 10. STABILITY AND REACTIVITY

### Reactivity
- Reactive with oxidizing agents
- Reactive with acids

### Chemical stability
- Stability: Stable at normal conditions
- Possibility of Hazardous Reactions: Hazardous polymerization does not occur
- Conditions to avoid: Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

### Other Information
- Corrosivity: No information available
- Special Remarks on Corrosivity: No information available
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Sodium Benzoate - 532-32-1

LD50/oral/rat = 2100 mg/kg Oral LD50 Rat (LOLI; European Chemicals Bureau IUCLID dataset)
4070 mg/kg (RTECS; European Chemicals Bureau IUCLID dataset)
LD50/oral/mouse = 1600 mg/kg
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = 2000 mg/kg Oral LD50 Rabbit

Product Information

LD50/oral/rat =
VALUE - Acute Tox Oral = 2100mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 1600mg/kg

LD50/dermal/rabbit
VALUE - Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE - Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

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

Symptoms

Skin Contact: May cause skin irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Eye Contact: May cause eye irritation. Not irritating to slightly irritating according to European Chemicals Bureau IUCLID dataset.

Inhalation May cause irritation of respiratory tract. Symptoms may include coughing and wheezing. May cause dyspnea (difficulty breathing or shortness of breath).

Product code: S1144  
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
Ingestion

May be harmful if swallowed. May cause digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting. May cause mild stomach pain. May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect behavior/central nervous system (tremors). May affect behavior/central nervous system (convulsions). Sodium Benzoate in small doses, mixed with food, has not been found to cause any deleterious or poisonous action. Furthermore, in large doses, mixed with food, it has not been found to exert deleterious effects on general health, nor act as a poison. Single doses of 6 grams are generally tolerated in adults. However, Ingestion of very large amounts may cause the previously mentioned health effects.

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 of large amounts of Sodium Benzoate may affect behavior/central nervous system (symptoms similar to acute exposure) as well as liver, blood (changes in serum composition (e.g. TP, bilirubin, cholesterol)), and urinary system. Ingestion of large amounts of benzoates (1 gram per kilogram of body weight per day) may also cause weight loss and have been associated with metabolic acidosis (a disturbance of the body acid-base balance in which there is excessive acidity of the blood), lactic acidosis, hypokalemia (low blood potassium levels), and hypocalcemia (low blood calcium levels. Repeated or prolonged skin contact may cause skin allergy (contact dermatitis). Repeated or prolonged ingestion of benzoates may cause allergic (anaphylactoid) reaction..

Sensitization:

No information available

Mutagenic Effects:

May affect genetic material

Carcinogenic effects:

Not considered carcinogenic.

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH - Carcinogens</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</table>

Reproductive toxicity

No data is available

Reproductive Effects:

No information available

Developmental Effects:

No information available

Teratogenic Effects:

No information available

Specific Target Organ Toxicity

<table>
<thead>
<tr>
<th>STOT - single exposure</th>
<th>No information available</th>
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</thead>
<tbody>
<tr>
<td>STOT - repeated exposure</td>
<td>No information available</td>
</tr>
<tr>
<td>Target Organs:</td>
<td>No information available</td>
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</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity
12. ECOLOGICAL INFORMATION

Ecotoxicity effects: Aquatic environment.

Sodium Benzoate - 532-32-1

Freshwater Fish Species Data: 420 - 558 mg/L LC50 Pimephales promelas 96 h flow-through 1
100 mg/L LC50 Pimephales promelas 96 h static 1

Water Flea Data: 650 mg/L EC50 Daphnia magna 48 h

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

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
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<td>None</td>
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<td>None</td>
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</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: Not applicable
Packing Group: None
Marine Pollutant: No data available
ERG No: No information 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

Product code: S1144
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
14. TRANSPORT INFORMATION

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
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

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>Philippines (PICCS)</th>
<th>KOREA KECL</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<tbody>
<tr>
<td>Sodium Benzoate</td>
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<td>Present</td>
<td>Present KE-02711</td>
<td>Present (3)-1293 (3)-1272 (3)-1076</td>
<td>Present</td>
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<td>Present 208-534-8</td>
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U.S. Regulations

Sodium Benzoate

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1733


Product code: S1144
Product name: SODIUM BENZOATE, POWDER, TECHNICAL
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)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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</thead>
<tbody>
<tr>
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</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
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</table>

U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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</thead>
<tbody>
<tr>
<td>Sodium Benzoate</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class:
Non-controlled

Sodium Benzoate
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.

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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EU Classification

R-phrase(s)
not determined

S -phrase(s)
none

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<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<td>No information</td>
<td>No information</td>
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</table>

Product code: S1144  Product name: SODIUM BENZOATE, POWDER, TECHNICAL
The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Not dangerous

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
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<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Glasses</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Apron</td>
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<tr>
<td>0</td>
<td></td>
<td>Gloves</td>
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</table>

Preparation Date: 2/26/2014
Revision Date: 2/26/2014
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.

See Section 8.

End of Material Safety Data Sheet