



# Material Safety Data Sheet

<b>NFPA</b>  	<b>HMIS</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; border: 1px solid black;">3</td> </tr> <tr> <td style="background-color: #FFC0CB;">Fire Hazard</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> </table>	Health Hazard	3	Fire Hazard	0	Reactivity	0	<b>Personal Protective Equipment</b>    See Section 15.
Health Hazard	3							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
<b>Common Name/Trade Name</b>	<b>Sodium nitrite</b>	<b>Catalog Number(s).</b> YY128, S1355, SO185, SO194 <b>CAS#</b> 7632-00-0
<b>Manufacturer</b>	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	<b>RTECS</b> RA1225000 <b>TSCA</b> TSCA 8(b) inventory: Sodium nitrite
<b>Commercial Name(s)</b>	Not available.	<b>CI#</b> Not available.
<b>Synonym</b>	Nitrous acid, sodium salt	<b><u>IN CASE OF EMERGENCY</u></b> <b><u>CHEMTREC (24hr) 800-424-9300</u></b>  CALL (310) 516-8000
<b>Chemical Name</b>	Sodium Nitrite	
<b>Chemical Family</b>	Not available.	
<b>Chemical Formula</b>	NaNO <sub>2</sub>	
<b>Supplier</b>	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	CEIL (mg/m <sup>3</sup> )	
1) Sodium nitrite	7632-00-0				100
<b>Toxicological Data on Ingredients</b>	<b>Sodium nitrite:</b> ORAL (LD50): Acute: 180 mg/kg [Rat]. 175 mg/kg [Mouse].				

Section 3. Hazards Identification	
<b>Potential Acute Health Effects</b>	Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of skin contact (permeator). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death.
<b>Potential Chronic Health Effects</b>	<b>CARCINOGENIC EFFECTS:</b> Classified 2A (Probable for human.) by IARC (listed as nitrites) <b>MUTAGENIC EFFECTS:</b> Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. <b>TERATOGENIC EFFECTS:</b> Not available. <b>DEVELOPMENTAL TOXICITY:</b> Not available. The substance may be toxic to blood, cardiovascular system, Smooth Muscle. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Serious Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Serious Inhalation</b>	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
<b>Ingestion</b>	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
<b>Serious Ingestion</b>	Not available.

**Section 5. Fire and Explosion Data**

<b>Flammability of the Product</b>	Non-flammable.
<b>Auto-Ignition Temperature</b>	Not applicable.
<b>Flash Points</b>	Not applicable.
<b>Flammable Limits</b>	Not applicable.
<b>Products of Combustion</b>	Not available.
<b>Fire Hazards in Presence of Various Substances</b>	of combustible materials of organic materials
<b>Explosion Hazards in Presence of Various Substances</b>	Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of shocks, of heat.
<b>Fire Fighting Media and Instructions</b>	Not applicable.
<b>Special Remarks on Fire Hazards</b>	When in contact with organic matter, it will ignite by friction. May ignite combustibles.
<b>Special Remarks on Explosion Hazards</b>	Explodes when heated over 1000 F (538 C). Sodium Nitrite + thiocyanate explodes on heating. A mixture of sodium nitrite and various cyanides explodes on contact. Mixture of sodium nitrite and phthalic acid or anhydride explode violently on heating. Fusion of urea with sodium nitrite must be carried out exactly as described to avoid risk of explosion. Interaction of nitrites when heated with metal amidosulfates (sulfamates) may become explosively violent owing to liberation of nitrogen and steam mixed with ammonium sulfamate form. Violent explosion occurs if an ammonium salt is melted with nitrite salt. Shock may explode nitrites.

**Section 6. Accidental Release Measures**

<b>Small Spill</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
<b>Large Spill</b>	Oxidizing material. Poisonous solid. Stop leak if without risk. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

**Section 7. Handling and Storage**

<b>Precautions</b>	Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, acids.
<b>Storage</b>	Oxidizer. Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers. Air Sensitive Oxygen Sensitive

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	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.
<b>Personal Protection</b>	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
<b>Exposure Limits</b>	Not available.

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Solid. (Powdered solid. Granular solid. Granular powder.)	<b>Odor</b>	Odorless.
<b>Molecular Weight</b>	69 g/mole	<b>Taste</b>	Saline. (Slight.)
<b>pH (1% soln/water)</b>	9 [Basic.]	<b>Color</b>	White to slightly yellowish.
<b>Boiling Point</b>	320°C (608°F)		
<b>Melting Point</b>	271°C (519.8°F)		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	2.2 (Water = 1)		
<b>Vapor Pressure</b>	Not applicable.		
<b>Vapor Density</b>	Not available.		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Water/Oil Dist. Coeff.</b>	Not available.		
<b>Ionicity (in Water)</b>	Not available.		
<b>Dispersion Properties</b>	See solubility in water, methanol.		
<b>Solubility</b>	Easily soluble in hot water. Soluble in cold water. Partially soluble in methanol. Very slightly soluble in diethyl ether.		

**Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	Excess heat, dust generation, ignition sources, exposure to air, combustible materials, incompatible materials, exposure to moist air or water.
<b>Incompatibility with various substances</b>	Highly reactive with combustible materials, organic materials. Reactive with reducing agents, metals, acids.

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Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Hygroscopic. Strong oxidizer. Slowly oxidizes to nitrate in air. Reacts vigorously with reducing materials. Sodium nitrite is a strong oxidizer and is incompatible with the following: acetanilide, metals as powders, ammonium salts, aminoguanidine salts, anitpyrine, Butadiene, chlorates, hypophosphites, activated carbon, iodides, mercury salts, permanganate, phthalic acid, phthalic anydride, sodium amide, sodium disulphite, cyanides (e.g. potassium cyanide, sodium cyanide), sodium thiocyanate, lithium, sulfites, tannic acid, urea, wood, vegetable astringent decoctions, infusions, or tinctures.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

### Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Inhalation. Ingestion.
Toxicity to Animals	<b>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</b> Acute oral toxicity (LD50): 175 mg/kg [Mouse]. Acute toxicity of the dust (LC50): 5.5 4 hours [Rat].
Chronic Effects on Humans	<b>CARCINOGENIC EFFECTS:</b> Classified 2A (Probable for human.) by IARC (listed as nitrites) <b>MUTAGENIC EFFECTS:</b> Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: blood, cardiovascular system, Smooth Muscle.
Other Toxic Effects on Humans	Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Passes through the placental barrier in animal. May cause cancer based on animal test data. May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic)
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May be absorbed through skin. Eyes: Causes eye irritation. May cause conjunctivitis. May cause permanent corneal opacification. Ingestion: Harmful if swallowed. Causes gastrointestinal tract irritation with nausea. The primary toxic effects of nitrites include orthostatic hypotension (due to perpheral vasodilation) and methemoglobinemia (the formation of methemoglobin in the blood which causes deficient oxygenation of the blood due to decreased available hemoglobin). Other effects or symptoms may include flushed skin, sweating, muscular weakness, dizziness, lightheadness, fatigue, throbbing headache, mental impairment, incoordination, loss of reflexes, change in motor activity, seizures convulsions, coma, rapid pulse, bradycardia or tachyrdardia (slow or fast heart beat), dysrhythmias, visual disturbances, dyspnea. Furthermore, methemoglobinemia due to inadequate oxygenation of the blood can lead to progressive cyanosis, and coma. Cyanosis is first visible as a bluish discoloration of the mucous membranes and unpigmented areas of the body. May also affect the liver, urinary system, brain Inhalation: May cause respiratory tract irritation, cyanosis, dyspena, pulmonary edema, asphyxia, chemical pneumonitis, upper airway obstruction caused by edema and possible death. May cause biochemical changes. May affect the blood (methemoglobinemia), and the cardiovascular system (tachycardia). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may cause nausea, vomiting, dizziness, rapid or slow heart beat, irregular breathing, convulsions. Repeated or prolonged ingestion may also affect the liver and cause anorexia (weight loss).



**Section 12. Ecological Information**

<b>Ecotoxicity</b>	Ecotoxicity in water (LC50): 0.092-1 mg/l 96 hours [Fish (Oncorhynchus mykiss)]. 2.3 mg/l 96 hours [Fish (Pimephales promelas)]. 20 mg/l 96 hours [Fish (Pimephales promelas)]. 0.19 mg/l 96 hours [Fish (Oncorhynchus mykiss)].
<b>BOD5 and COD</b>	Not available.
<b>Products of Biodegradation</b>	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	The products of degradation are less toxic than the product itself.
<b>Special Remarks on the Products of Biodegradation</b>	Not available.

**Section 13. Disposal Considerations**

<b>Waste Disposal</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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**Section 14. Transport Information**

<b>DOT Classification</b>	CLASS 5.1: Oxidizing material. CLASS 6.1: Poisonous material.
<b>Identification</b>	UNNA: 1500 : Sodium nitrite PG: III
<b>Special Provisions for Transport</b>	Not available.
<b>DOT (Pictograms)</b>	 

**Section 15. Other Regulatory Information and Pictograms**

<b>Federal and State Regulations</b>	New York release reporting list: Sodium nitrite Pennsylvania RTK: Sodium nitrite Massachusetts RTK: Sodium nitrite Massachusetts spill list: Sodium nitrite New Jersey: Sodium nitrite New Jersey spill list: Sodium nitrite Louisiana spill reporting: Sodium nitrite California Director's List of Hazardous Substances: Sodium nitrite TSCA 8(b) inventory: Sodium nitrite TSCA 12(b) one time export: Sodium nitrite SARA 313 toxic chemical notification and release reporting: Sodium nitrite CERCLA: Hazardous substances.: Sodium nitrite: 100 lbs. (45.36 kg)
<b>California Proposition 65 Warnings</b>	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
<b>Other Regulations</b>	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-555-9). Canada: Listed on Canadian Domestic Substance List (DSL). China: Listed on National Inventory. Japan: Listed on National Inventory (ENCS). Korea: Listed on National Inventory (KECI). Philippines: Listed on National Inventory (PICCS). Australia: Listed on AICS.

**Other Classifications**

**WHMIS (Canada)** CLASS C: Oxidizing material.  
CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).  
CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC)** R8- Contact with combustible material may cause fire. R25- Toxic if swallowed. R50- Very toxic to aquatic organisms. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

**HMIS (U.S.A.)**

Health Hazard	3
Fire Hazard	0
Reactivity	0
Personal Protection	E

**National Fire Protection Association (U.S.A.)**

Health  Flammability  
Reactivity  
Specific hazard

**WHMIS (Canada) (Pictograms)**



**DSCL (Europe) (Pictograms)**



**TDG (Canada) (Pictograms)**



**ADR (Europe) (Pictograms)**



**Protective Equipment**



Gloves (impervious).



Synthetic apron.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

**Section 16. Other Information****MSDS Code** S4240**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 12/16/2011.

Verified by Sonia Owen.

Printed 12/16/2011.

CALL (310) 516-8000

**Notice to Reader**

*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. 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 Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.*