

# MATERIAL SAFETY DATA SHEET



NFPA	HMIS	PPE	Symbol(s)
<p>Regulated</p>			
Current Issue Date: May 16, 2013		Revision Number: 0	
<b>1. PRODUCT AND COMPANY IDENTIFICATION</b>			
Product Name:	Sodium Nitrite		
Other/Generic Names:	Nitrous Acid, Sodium Salt, Sodium Nitrite (various grades)		
Recommended Use:	Food preservation, dye manufacturing, corrosion inhibitor		
Manufacturer:	General Chemical, LLC 90 East Halsey Road Parsippany, NJ 07054		
For More Information:	General Chemical Performance Products Ltd. 90 East Halsey Road Parsippany, NJ 07054 Customer Service US ONLY: 800-631-8050 (Monday – Friday 9:00AM – 4:30PM)		
Emergency Telephone Number:	Customer Service CANADA ONLY: 866-543-3896 (Monday – Friday 9:00AM – 4:30PM) US ONLY - CALL CHEMTREC: 800-424-9300 (24 Hours/Day, 7 Days/Week) CANADA ONLY - CALL CANUTEC: 613-996-6666 (24 Hours/Day, 7 Days/Week) OUTSIDE THE US - 703-527-3887		
<b>2. HAZARDS IDENTIFICATION</b>			
<b>EMERGENCY OVERVIEW:</b> White to slightly yellow crystalline solid. Toxic if swallowed or dust is inhaled. Oxidizer: may ignite organic materials and react with other materials. Can decompose if mixed with acids or exposed to fire conditions, releasing toxic nitrogen oxides.			
<b>OSHA Status:</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)		
<b><u>Potential Health Affects</u></b>			
<b>Skin:</b>	May cause skin irritation.		
<b>Eyes:</b>	May strongly irritate or burn the eyes.		
<b>Inhalation:</b>	Product mists may cause irritation to the respiratory tract.		
<b>Ingestion:</b>	May irritate the gastrointestinal tract. Although small quantities are used in food preparation, swallowing moderate amounts of sodium nitrite can result in serious toxic effects including death. Effects include nausea, weakness, cyanosis (blue skin), collapse and coma, possibly leading to death. Sodium nitrite interferes with the blood's ability to transport oxygen.		
<b>Delayed Effects:</b>	None known. If Sodium nitrite is used with amines found in certain cutting fluids, potentially carcinogenic nitrosamine compounds may be formed.		

## SODIUM NITRITE

3. COMPOSITION/INFORMATION ON INGREDIENTS		
Component	CAS No	Weight %
Sodium nitrite	7632-00-0	>98%
4. FIRST AID MEASURES		
Eye Contact	Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.	
Skin Contact	Flush with plenty of water, removing contaminated clothing. If irritation develops, get medical attention.	
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get prompt medical attention.	
Ingestion	Do not induce vomiting. Immediately give large quantities of water. Get medical attention immediately.	
Notes to Physician	Sodium nitrite forms methemoglobin in the blood stream. Treat accordingly.	
5. FIRE-FIGHTING MEASURES		
<u>Flammable Properties</u>		
FLASH POINT:	Not Flammable	
FLASH POINT METHOD:	Not Applicable	
AUTOIGNITION TEMPERATURE:	Not Applicable	
UPPER FLAME LIMIT (VOLUME % IN AIR):	Not Applicable	
LOWER FLAME LIMIT (VOLUME % IN AIR):	Not Applicable	
FLAME PROPAGATION RATE (SOLIDS):	Not Applicable	
OSHA FLAMMABILITY CLASS:	Not Applicable	
SUITABLE EXTINGUISHING MEDIA:	Use flooding amounts of water or other agents.	
UNSUITABLE EXTINGUISHING MEDIA:	Do NOT use dry chemicals containing ammonium phosphate.	
<u>Explosion Limits</u>		
Hazardous Combustion Products	No information available	
Impact sensitivity	No information available	
Sensitivity to static discharge	No information available	
Specific Hazards Arising from the Chemical	Material does not burn but is an oxidizing agent and will support combustion of other materials. Product decomposes above 608 °F releasing toxic nitrogen oxides.	
Protective Equipment and Precautions for Firefighters	Wear self-contained breathing apparatus (SCBA) and full protective equipment.	
6. ACCIDENTAL RELEASE MEASURES		
IN CASE OF SPILL OR OTHER RELEASE	Remove sources of ignition. Ventilate area. Use non-sparking tools and equipment. Sweep or shovel spilled material into containers. Dispose of material according to local, state and federal authorities. Do not allow product or residues to enter waterways and/or any source of drinking water.	
7. HANDLING AND STORAGE		
Handling	Avoid contact with skin and eyes. Do not breathe product dusts. Avoid contact with incompatible, combustible, organic or readily oxidizable materials.	
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed. Do not store on wooden floors. Isolate from combustible materials. Empty containers may contain product residues; observe all warnings and precautions listed for the product.	

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION					
Component	ACGIH TLV	OSHA PEL	Ontario TWA EV	Mexico OEL (TWA)	NIOSH IDLH
Sodium Nitrite				TWA: 2 mg/m <sup>3</sup>	
<b>Engineering Measures</b> Use local exhaust to keep airborne concentrations below the permissible exposure limits.					
<b>Personal Protective Equipment</b>					
<b>Eye/Face Protection</b>	Wear chemical safety goggles. Do not wear contact lenses.				
<b>Skin Protection</b>	Wear appropriate personal protective clothing to prevent skin contact. If prolonged or repeated contact is anticipated, all clothing should be impervious to liquid.				
<b>Respiratory Protection</b>	A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.				
<b>General Hygiene Considerations</b>	To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29 CFR 1910.132) be conducted before using this product. Eyewash and safety showers are recommended.				
9. PHYSICAL AND CHEMICAL PROPERTIES					
<b>Appearance</b>	Crystals				
<b>Color</b>	White to slightly yellow				
<b>Chemical Formula</b>	NaNO <sub>2</sub>				
<b>Odor</b>	None				
<b>Odor Threshold</b>	No information available				
<b>Physical State</b>	Solid				
<b>pH</b>	~9.0 (for aqueous solution)				
<b>Flash Point</b>	Not flammable				
<b>Autoignition Temperature</b>	Not applicable				
<b>Boiling Point/Range</b>	Decomposes above 608°F				
<b>Melting Point/Range</b>	520°F				
<b>Flammability Limits in Air</b>	No information available				
<b>Explosive Properties</b>	No information available				
<b>Oxidizing Properties</b>	No information available				
<b>Evaporation Rate</b>	Not determined				
<b>Vapor Pressure</b>	Not applicable				
<b>Vapor Density</b>	Not applicable				
<b>Specific Gravity</b>	2.17				
<b>Partition Coefficient (n-octano/water)</b>	No information available				
<b>Viscosity</b>	No information available				
<b>Molecular Weight</b>	69.0				
<b>Water Solubility</b>	80.8 g/100 g at 68°F				
<b>VOC Content (%)</b>	0				


## SODIUM NITRITE

10. STABILITY AND REACTIVITY				
Chemical Stability	Normally stable.			
Conditions to Avoid	Material slowly oxidizes to sodium nitrate when exposed to air. Avoid heat, flame, ignition sources, shock, friction and incompatibilities.			
Incompatible Products	Hazardous reactions can occur with acids, ammonium compounds, reducing agents (particularly cyanides, thiocyanates and thiosulfates). May ignite organic compounds and other combustible materials.			
Hazardous Decomposition Products	Oxides of nitrogen (toxic and irritating)			
Possibility of Hazardous Reactions	Will not occur.			
11. TOXICOLOGICAL INFORMATION				
<u>Acute Toxicity</u>				
<u>Component Information</u>				
Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Sodium nitrite	88 mg/kg (rat)		5.5 mg/m <sup>3</sup> /4hr (rat)	
Irritation	No information available			
Corrosivity	No information available			
Sensitization	No information available			
<u>Chronic Toxicity</u>				
Carcinogenicity	There are no known carcinogenic chemicals in this product.			
Mutagenic Effects	No information available			
Reproductive Effects	No information available			
Developmental Effects	No information available			
Teratogenicity	Multiple reproductive tests indicate that sodium nitrite is not teratogenic.			
Target Organ Effects	No information available			
Other Adverse Effects	Fetal toxicity has been demonstrated in pregnant animals fed toxic doses of sodium nitrite. This is due to the formation of methemoglobin.			
Endocrine Disruptor Information	No information available			
12. ECOLOGICAL INFORMATION				
<u>Ecotoxicity</u>				
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.				
Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium nitrite		LC50 = 0.19 mg/L Oncorhynchus mykiss 96 h		
Persistence and Degradability	No information available			
Bioaccumulation	No information available			
Mobility in Environmental Media	No information available			
Component		Log Pow		
Sodium nitrite		-3.7		
13. DISPOSAL CONSIDERATIONS				
Waste Disposal Methods	Dispose of waste in accordance with all federal, state, and local regulations.			
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal.			

# SODIUM NITRITE

14. TRANSPORT INFORMATION				
<b>DOT</b>	Regulated			
<b>Proper Shipping Name</b>	Sodium nitrite			
<b>Hazard Class</b>	5.1			
<b>Subsidiary Hazard Class</b>	6.1			
<b>UN-No</b>	UN1500			
<b>Packing Group</b>	PGIII			
<b>TDG</b>	Regulated			
<b>Hazard Class</b>	5.1			
<b>Subsidiary Hazard Class</b>	6.1			
<b>UN-No</b>	UN1500			
<b>Packing Group</b>	PGIII			
<b>IMDG</b>	Product is a marine pollutant if shipped overseas			
15. REGULATORY INFORMATION				
<b><u>International Inventories</u></b>				
TSCA	Yes			
DSL	Yes			
ELINCS	No			
EINECS	Yes			
ENCS	Yes			
CHIINA	Yes			
KECL	Yes			
PICCS	Yes			
AICS	Yes			
<b><u>U.S. Federal Regulations</u></b>				
<b><u>SARA 313</u></b>				
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:				
<b><u>Component</u></b>	<b><u>CAS-No</u></b>	<b><u>Weight %</u></b>	<b><u>SARA 13 - Threshold Values</u></b>	
Sodium nitrite	7632-00-0	>98	1.0	
<b><u>SARA 311/312 Hazardous Categorization</u></b>				
Chronic Health Hazard	No			
Acute Health Hazard	Yes			
Fire Hazard	No			
Sudden Release of Pressure Hazard	No			
Reactive Hazard	Yes			
<b><u>Clean Water Act</u></b>				
<b><u>Component</u></b>	<b><u>CWA – Reportable Quantities</u></b>	<b><u>CWA – Toxic Pollutants</u></b>	<b><u>CWA – Priority Pollutants</u></b>	<b><u>CWA – Hazardous Substances</u></b>
Sodium nitrite	100 lb			X
<b><u>CERCLA</u></b>				
<b><u>Component</u></b>	<b><u>CERCLA RQ (lb)</u></b>	<b><u>SARA TPQ (lb)</u></b>		
Sodium nitrite	100 lb			
<b><u>U.S. State Regulations</u></b>				
<b><u>California Proposition 65</u></b>				
This product does not contain any Proposition 65 chemicals.				

## SODIUM NITRITE

<b>State Right-to-Know</b>					
<b>Component</b>	<b>Massachusetts</b>	<b>New Jersey</b>	<b>Pennsylvania</b>	<b>Illinois</b>	<b>Rhode Island</b>
Sodium nitrite	X	X	X		
<b>Other International Regulations</b>					
Mexico	No information available				
Canada	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.				
<b>WHMIS Hazard Class</b>					
C Oxidizing materials					
D1B Toxic materials					
D2B Toxic materials					
<b>16. OTHER INFORMATION</b>					
Current Issue Date:	May 16, 2013				
Previous Issue Date:	November 26, 2012				
Revision Summary:	Change to section 1				
<p><b>Disclaimer:</b></p> <p><i>All information, statements, data, service and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as "information") are believed to be accurate and reliable. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. General Chemical, LLC is not engaged in the business of providing technical, operational, engineering or safety information for a fee, and therefore; any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill and experience in the chemical industry. General Chemical, LLC shall not be responsible or liable for the use, application or implementation of the information, provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion, of such persons, their employees, advisors and agents.</i></p> <p style="text-align: center;">End of MSDS</p>					