



NFPA



Material Safety Data Sheet

HMIS

Health Hazard	3
Fire Hazard	0
Reactivity	1

Personal Protective Equipment



See Section 15.

Section 1. Chemical Product and Company Identification

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Common Name/ Trade Name	Adamsite Test	Part #	RE2124
Manufacturer	HazTech Systems, Inc. PO Box 929 Mariposa, CA 95338	CAS#	7632-00-0
Commercial Name(s)	Not available.	RTECS	RA1225000
Synonym	Not available.	TSCA	TSCA 8(b) inventory: Sodium nitrite
Chemical Name	Sodium Nitrite	CI#	Not available.
Chemical Family	Not available.	<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u>	
Chemical Formula	NaNO ₂	CALL (310) 516-8000	
Supplier	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 ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Sodium nitrite	7632-00-0				100

Toxicological Data on Ingredients	Sodium nitrite ORAL (LD50):	Acute: 180 mg/kg [Rat]. 175 mg/kg [Mouse].
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Section 3. Hazards Identification

Potential Acute Health Effects Very hazardous in case of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (irritant). 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. Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Classified POSSIBLE for human.

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/ male [POSSIBLE]. 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.

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Section 4. First Aid Measures

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

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of shocks, of heat.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	When in contact with organic matter, it will ignite by friction. May ignite combustibles.
Special Remarks on Explosion Hazards	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 irsk of explosion. Interaction of nitrites when heated with metal amidosulfates (sulfamates) may become explosively violent <input type="checkbox"/> owing to liberation of nitrogen and steam mixed with ammonium sulfamate form. Violent explosion occurs if <input type="checkbox"/> an ammonium salt is melted with nitrite salt. Shock may explode nitrites.

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Section 6. Accidental Release Measures

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

Section 7. Handling and Storage

Precautions	Keep locked up.. Keep away from heat. Keep away from sources of ignition. Keep away from <input type="checkbox"/> combustible disposal. equipment. If ingested, seek medical advice immediately and show the container or <input type="checkbox"/> the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, <input type="checkbox"/> combustible materials, organic materials, metals, acids.
Storage	Oxidizer. Hygroscopic. Air sensitive. Keep container tightly closed. Keep container in a cool, well- <input type="checkbox"/> ventilated area. Separate from acids, alkalis, reducing agents and combustibles. See NFPA 43A, Code <input type="checkbox"/> for the Storage of Liquid and Solid Oxidizers. Do not store above 23°C (73.4°F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep <input type="checkbox"/> exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Synthetic apron. Gloves (impervious).
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; <input type="checkbox"/> consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

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

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Solubility 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

Stability The product is stable.

Instability Temperature Not available.

Conditions of Instability Excess heat, dust generation, ignition sources, exposure to air, combustible materials, incompatible materials, exposure to moist air or water.

Incompatibility with various substances Highly reactive with combustible materials, organic materials.
Reactive with reducing agents, metals, acids.
Slightly reactive to reactive with moisture.

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 anhydride, 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 **WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.**
Acute oral toxicity (LD50): 175 mg/kg [Mouse].
Acute toxicity of the dust (LC50): 5.5 4 hours [Rat].

Chronic Effects on Humans **MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Classified POSSIBLE for human.
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/ male [POSSIBLE].
May cause damage to the following organs: blood, cardiovascular system, Smooth Muscle.

Other Toxic Effects on Humans Very hazardous in case of ingestion, of inhalation.
Hazardous in case of skin contact (irritant).
Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans May cause cancer (tumorigen), affect genetic material (mutagen), cause adverse reproductive effects (fertility, fetotoxicity) and birth defects based on animal data. Passes through the placental barrier in animal.

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. May affect behavior, brain, nervous system (change in motor activity, muscular in coordination, loss of reflexes, convulsions, coma), blood (methemoglobinemia), liver, metabolism, cardiovascular system (decrease in blood pressure, rapid pulse) and urinary system. May also cause weakness.
Inhalation: May be fatal if inhaled. May cause respiratory tract irritation, cyanosis, dyspnea, 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).


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Chronic Potential Health Effects:
 May cause reproductive and fetal effects as well as mutagenic effects based on laboratory animal experiments. Animal studies has also reported development of tumors.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

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

DOT Classification	CLASS 5.1: Oxidizing material. CLASS 6.1: Poisonous material.
Identification	: Sodium nitrite UNNA: 1500 PG: III
Special Provisions for Transport	Marine Pollutant
DOT (Pictograms)	


Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	New York release reporting list: Sodium nitrite Pennsylvania RTK: Sodium nitrite Massachusetts RTK: Sodium nitrite New Jersey: 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)
California Proposition 65 Warnings	
Other Regulations	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.
Other Classifications	WHMIS (Canada) CLASS C: Oxidizing material. CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY 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.

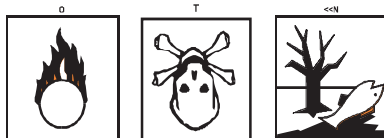
HMIS (U.S.A.)

Health Hazard	3
Fire Hazard	0
Reactivity	0
Personal Protection	C

**WHMIS (Canada)
(Pictograms)**



**DSCL (Europe)
(Pictograms)**



**TDG (Canada)
(Pictograms)**



**ADR (Europe)
(Pictograms)**



Protective Equipment



Gloves (impervious).



Synthetic apron.

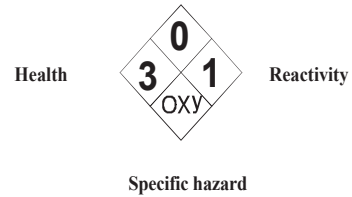
Wear appropriate respirator when ventilation is inadequate.



Safety glasses.

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

Flammability



**Adamsite Test****Page Number: 7****Section 16. Other Information**

MSDS Code **S4240**

References Not available.

Other Special Not available.
Considerations

Validated by R. Turkington

Verified by R. Turkington

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 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.