



North Metal and Chemical Company

1. Company Identification and Product Hazard Overview:

Product Name: Sodium Nitrite

Recommended Use: Dye manufacturing, corrosion inhibition, antioxidants for synthetic polymers, heat transferring agents, stabilizers, surface active agents.

Manufactured by: **NORTH Metal and Chemical Company**
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In Case of Emergency Call CHEMTREC (24 Hours): 1-800-424-9300

2. Hazard Identification:

GHS Classification: **Oxidizing Solids (Category 2)**
Acute Oral Toxicity (Category 3)
Eye Irritation (Category 2A)
Acute Aquatic Toxicity (Category 1)

Signal Word: DANGER

Pictogram:



Hazard Statement(s):

- H272** : May intensify fire; oxidizer.
- H301** : Toxic if swallowed.
- H319** : Causes serious eye irritation.
- H400** : Very toxic to aquatic life.

Precautionary Statement(s):

Prevention:

- P210 + P220** : Keep away from heat and store away from clothing/combustible and organic materials.
- P280** : Wear protective gloves/protective clothing such as apron, boots and safety glasses with side shields.
- P261** : Avoid breathing dust and/or mist.
- P264** : Wash all affected body parts thoroughly after handling.
- P270** : Do not eat, drink, or smoke when using this product.
- P273** : Avoid release to the environment.

Response:

- P305 + P351 + P338** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P301 + P310** : IF SWALLOWED: Immediately call a POISON CENTER or a doctor/physician.
- P312** : Call a POISON CENTER/doctor if you feel unwell.
- P391 + P501** : Collect Spillage. Dispose of contents/container in accordance with local/state/federal regulations.

3. Composition/Information on Ingredient:

Common Name: Sodium Nitrite; Nitrous Acid, sodium salt

Chemical Formula: NaNO₂

CAS Number: 7632-00-0

Substance:	CAS Number:	Compo. (%)
Sodium Nitrite	7632-00-0	> 99.0

4. First Aid Measures:

General recommendation : If victim is unconscious, get medical attention immediately. Place the unconscious victim in recovery position and maintain an open airway. Loosen tight clothing.

Eyes : Flush skin with running water for at least 15 minutes, periodically lifting upper and lower lids. Remove any contact lenses if safe to do so and while rinsing. Get medical attention immediately.

Skin : Wash skin with plenty of running water. Remove contaminated clothing. Get medical attention immediately. Clean and dry contaminated clothing thoroughly before reuse.

Ingestion : If the product is swallowed, call doctor/physician and get medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation : If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has stopped give artificial respiration. Get medical attention/consult a physician.

PPE for first responders : Gloves, safety goggles, boots and dust/vapor respirator.

Note to Physician : Absorption of this product into the body may cause cyanosis and or methemoglobinemia. Treat symptomatically. Moderate degree of cyanosis needs to be treated by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body is of utmost importance.

5. Fire Fighting Measures:

General Hazard (s) : Evacuate personnel downwind in-order to avoid inhalation of irritating and/or harmful fumes and smoke.

Specific Hazard (s) : Material does not burn. It is an oxidizing agent. It has fire promoting properties due to release of oxygen when combined with incompatible materials. May ignite or explode in contact with combustible materials. CONTAINERS MAY EXPLODE IN FIRE

Extinguishing Media : Water spray, Water. Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents. Appropriate for the surrounding area.

Hazardous Combustion

Products : Fire may cause evolution of nitrogen oxides. Has a fire promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapors.

Fire Fighting Procedures: Evacuate area and fight fire from safe distance or a protected location. Move fire-exposed containers, if allowable without risk and without sacrificing the safety of the firefighters and others. Cool exposed containers with water spray (only water) to prevent over heating from a safe distance. Keep the fire exposed area isolated. If possible, firefighters should control run-off water to prevent environmental contamination. Hazardous decomposition and combustion products such as nitrogen and sodium oxides can be formed if product is burning.

Fire Fighting Equipment: Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (bunker gear) and self-contained breathing apparatus (SCBA) should be used for all fires.

6. Accidental Release Measures:

Protective Gear for Personnel:

For Small Spill : Safety glasses or chemical splash goggles, chemically resistant gloves, chemically resistant boots, and any appropriate body protection to minimize direct contact to the skin. Wear respiratory protection. Avoid dust formation. Avoid breathing dust.

For Large Spill : Triple gloves (rubber and nitrile over latex), chemical resistant suit, boots, hard hat, full face mask/an air purifying respirator (NIOSH approved). Self contained breathing apparatus must be worn in situations where fumigant gas generation and low oxygen levels are a consequence of contamination from the leak.

General Procedure : Remove all sources of ignition from spill area. Ventilate area. Do not let chemicals/waste enter land or water environment.

Spill Clean-up Procedures:

For Small Spill : In the event of a small spill, the spill should be swept up or contained with an absorbent pad and placed in a properly labeled waste container immediately. Wash the spill area and contain the waste in a labeled waste container without letting the wash enter the sewer/environment. Dispose the spill/waste according to state, federal, and local hazardous waste regulation.

For Large Spill : In the event of a large spill, contain the spill immediately and dispose the spill/waste according to state, federal, and local hazardous waste regulation. Do not let chemical/waste enter the environment.

Environmental

Precaution : Water spill - use appropriate containment to avoid run off or release to sewer or other waterways.
Land spill - use appropriate containment to avoid run off or release to ground.

General precaution : Remove containers of strong acid, alkali and incompatible materials from the release area. See section 10 for more information on incompatible materials.

Release Notes : If spill could potentially enter any waterway, including intermittent dry creeks, contact local authorities.

7. Handling and Storage:

Handling : Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle in a manner consistent with good industrial/manufacturing techniques and practices. Avoid formation of dust and aerosols. Keep away from sources of ignition. Keep away from combustible materials. Avoid contact with skin and eyes. Remove contaminated clothing and protective equipment before entering eating areas.

Storage : Store in a cool, dry well-ventilated area. Keep containers closed when not in use. Keep product isolated from incompatible materials/conditions

8. Exposure Controls and Personal Protection:

Engineering Controls : Use appropriate engineering controls to minimize exposure to vapors/dust generated via routine use. Maintain adequate ventilation of workplace and storage areas.

Personal Protective Equipment

Eyes and face: Wear NIOSH approved safety glasses with side shields or goggles when handling this material.

Skin: Avoid direct contact with skin. Wear chemically resistant gloves (rubber), apron, boots or whole bodysuit to prevent skin contact.

Respiratory: Avoid breathing vapor or mist. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) as a back up to engineering controls. Use NIOSH approved respiratory protection equipment. If used, full face-piece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.

Work Hygienic Practices : Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal hygiene practices should always be followed.

Exposure Limits:

Substance	CAS No.	OSHA STEL	OSHA PEL	ACGIH TLV	ACGIH STEL
Sodium Nitrite	7632-00-0	N/A	N/A	N/A	N/A

9. Chemical and Physical Properties:

Appearance	: Solid	Vapor Pressure	: 9.9 x 10 ⁻¹⁷ hPa @ 25 °C
Odor	: Odorless	Vapor Density	: Not available
Odor threshold	: Not available	Density	: 2.168 g/cm ³
Color	: White to Slightly Yellow	Bulk Density	: 1200 kg/m ³
pH	: 9.0 (100g/L H ₂ O, 20 °C)	Solubility	: Soluble in water
Melting Point	: 280 °C (decomposition)	Partition Coefficient	
Freezing Point	: Not available	n-octanol/water	: Log Pow : -3.7
Boiling Range	: 320 °C @760 mmHg (decomp.)	Molecular Wt. (g/mol)	: 69.00
Flash Point	: No data available	Auto Ignition Temp.	: Not available
Evaporation Rate	: Not available	Viscosity	: Not available

10. Stability and Reactivity:

Stability : The product is stable under recommended storage conditions.

Hazardous

Decomposition Products : Under Fire Conditions: Nitrogen Oxides (NO_x), Sodium Oxides

Hazardous

Polymerization : Will not occur

Incompatible Materials : Strong reducing agents, strong acids, amines, chlorates, powdered metals, hydrazine, liquid ammonia, amides, cyanides, permanganates, hypophosphites, sulfites, activated carbon, antipyrine, sodium thiosulfate, ammonium salts, cellulose, acetanilide, iodides, mercury salts.

Conditions to Avoid : Avoid exposure to extreme temperatures, incompatible materials, exposure to air, combustible materials, organic material, exposure to moist air or water.

11. Toxicological Information:

Acute Oral Toxicity:

LD50 Oral - Rat: 85 mg/kg

LD50 Oral - Mouse: 175 mg/kg

Remarks - Vascular: BP lowering not characterized in autonomic section. Vascular: Regional or general arteriolar or venous dilation.

LD50 Oral - Rabbit: 175 mg/kg

LDLo Oral - Human: 71 mg/kg (RTECS)

Acute Inhalation Toxicity:

LC50 Inhalation - Rat: 5.5 mg/m³ (4 Hours)

Acute Dermal Toxicity: No data available

Corrosion/Irritation:

Skin : No Irritation - Rabbit [Method: OECD Test Guideline 404]

Eyes : Mild Irritation - Rabbit, 24 Hours [Method: OCED Test Guideline 405]

Carcinogenicity : No data available.

Sensitization : No data available.

Mutagenicity : No data available.

Reproductive Effects : No data available.

Teratogenic Effects : No data available.

Routes of Exposure: Eyes, Skin, Inhalation, Ingestion

Potential Health Effects:

Eyes : Causes eye irritation

Skin : May be harmful if absorbed through skin. Causes skin irritation.

Inhalation : May be harmful if inhaled. Causes respiratory tract irritation - can irritate nose and throat.

Ingestion : Toxic if swallowed.

11. Toxicological Information Cont.:

Symptoms of Exposure:

Nausea, headache, incoordination, narcosis, Cyanosis. Prolonged exposure/absorption leads to vomiting, unconsciousness/coma, drop in blood pressure, depressed respiration, and methemoglobinemia.

Other Information:

The following applies to nitrites in general:

Risk of methemoglobin formation. Possibility of formation of nitrosamines with secondary and tertiary amines.

Nitrosamines have shown themselves to be carcinogenic in animal experiments.

RTECS: RA1225000 (CAS No.: 7632-00-0)

12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination.

Biodegradability : No data available.

Bioaccumulative Potential : No data available.

Terrestrial Ecotoxicity : This material can be harmful or fatal to contaminated plants or animals, especially if large volumes are released into the environments.

Aquatic Ecotoxicity (Acute)

Fish Toxicity : Oncorhynchus mykiss (rainbow trout) LC₅₀ (96h) - 0.94 - 1.92 mg/L [Flow Through]

: Oncorhynchus mykiss (rainbow trout) LC₅₀ (96h) - 0.19 mg/L [Juvenile]

Aquatic Invertebrates : Daphnia magna (Crustacea) EC₅₀ (48h) - 12.5 mg/L

Aquatic Plants : No data available

Mobility in Soil : No data available.

Other Adverse Effects : No data available.

13. Disposal Considerations:

Disposal Method : Dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations.

For Large Spills : Contain material and call local authorities for emergency assistance.

Product Disposal : Dispose of at a supervised incineration facility or an appropriate waste disposal facility according to current applicable local, state and federal laws, regulations and product characteristics at time of disposal.

Empty Container : Contaminated container should be labeled and disposed in accordance to local, state and federal laws and regulations.

General Comments : Refer to section 6, accidental release measures for additional information.

14. Transport Information:

Regulatory Information	UN No.	Proper Shipping Name	Hazard Class, Subsidiary Hazard	Packing Group
US DOT	1500	Sodium Nitrite	5.1, 6.1	III
IMDG	1500	Sodium Nitrite	5.1, 6.1	III EMS No.: F-A, S-Q
IATA	1500	Sodium Nitrite	5.1, 6.1	III

15. Regulatory Information:

U.S. FEDERAL REGULATIONS:

TSCA: All components of this product are listed on the TSCA inventory.

CERCLA: Sodium Nitrite - Reportable quantity: 100 Lbs.

SARA TITLE III (EPCRA) Section 313: The following components are subject to reporting requirements set forth by 40 CFR part 372:

Substance:	CAS No:	Weight %:
Sodium Nitrite	7632-00-0	>99.0

SARA TITLE III Section 311/312:

Acute health hazard - Yes
 Chronic health hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - Yes

STATE REGULATIONS:

STATE RIGHT TO KNOW:

Massachusetts - Sodium Nitrite (CAS No. 7632-00-0)
 Pennsylvania - Sodium Nitrite (CAS No. 7632-00-0)
 New Jersey - Sodium Nitrite (CAS No. 7632-00-0)

16. Other Information:

HMIS Rating:*

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	J

RATING	HEALTH	FIRE HAZARD	PHYSICAL HAZARD
0	No significant risk to health	Will not burn	Product stable under ambient temperature and condition.
1	Can cause irritation or minor reversible injury.	Must be preheated to burn	Product can become unstable at high temperatures and pressures.
2	Can cause temporary or residual injury	Ignites when moderately heated	Product can become unstable and cause violent chemical reaction at normal pressures and temperatures
3	Can cause serious injury	Ignition occurs at normal temperature	Product capable of forming explosive mixtures and is capable of detonation in presence of strong initiating source.
4	Can be lethal from single or repeated exposure.	Extremely flammable	Product is highly explosive and unstable. Exothermic reactions possible with decomposition, polymerization, reaction with water or self reaction

Personal Protection J - Gloves + Safety Goggles + Chemical Apron + Dust and Vapor Respirator

16. Other Information Cont.:

NFPA Rating:*



RATING	HEALTH	FIRE HAZARD	REACTIVITY
0	Minimal Hazard	Will not burn	Normally Stable
1	Can cause significant irritation	Must be preheated to burn	Unstable at high temperatures
2	Can cause temporary incapacitation or residual injury	Ignites when moderately heated	Normally unstable. Can readily go under violent chemical reaction but do not detonate.
3	Can cause permanent injury.	Ignition occurs at normal temperature	Capable of detonation, or of explosive reaction, but requires a strong ignition source.
4	Can be lethal.	Extremely flammable	May explode at normal temperatures and pressures

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