

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 02.11.2015

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Sodium Nitrite, Reagent

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Sodium Nitrite, Reagent

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25560

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Oxidizing

Oxidizing solids, category 3



Toxic

Acute toxicity (oral, dermal, inhalation), category 3



Irritant

Eye irritation, category 2A

Oxid. Sol 3

AcTox. Oral 3

Eye. Irrit 2A

Aq. AcTox. 1

Signal word : Danger

Hazard statements:

May intensify fire; oxidizer

Toxic if swallowed

Causes serious eye irritation

May cause cancer

Very toxic to aquatic life

Precautionary statements:

If medical advice is needed, have product container or label at hand

Keep out of reach of children

Read label before use

Use personal protective equipment as required

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Do not handle until all safety precautions have been read and understood

Keep away from heat/sparks/open flames/hot surfaces. No smoking

Keep/Store away from clothing/combustible materials

Take any precaution to avoid mixing with combustibles

Wash skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid release to the environment

Wear protective gloves/protective clothing/eye protection/face protection

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing

IF exposed or concerned: Get medical advice/attention

If eye irritation persists get medical advice/attention

In case of fire: Use agents recommended in section 5 for extinction

Collect spillage

Store locked up

Dispose of contents and container as instructed in Section 13

7632-00-0 :

The substance or mixture is classified as oxidizing with the category 3.

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	3
Flammability	0
Physical Hazard	2
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

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CAS 7632-00-0	Sodium nitrite	>95 %
Percentages are by weight		

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Seek medical attention. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position.

After skin contact: Immediately seek medical attention. Wash hands and exposed skin with soap and plenty of water. Rinse or flush skin/hair gently with water for at least 20 minutes.

After eye contact: Immediately seek medical attention. Continue rinsing eyes during transport to hospital. Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing.

After swallowing: Immediately seek medical attention. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Incoordination., Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Ingestion may cause weakness, muscular incoordination, fine tremors, loss of reflexes, convulsions and possible death from circulatory collapse. Ingestion may cause a decrease in blood pressure, rapid pulse and visual disturbances. Shortness of breath. Headache. Nausea. Dizziness. Irritation- all routes of exposure. May cause conjunctivitis. May cause permanent corneal opacification. May be absorbed through the skin; Vascular: BP lowering not characterized in autonomic section. Vascular: Regional or general arteriolar or venous dilation. Liver - Irregularities - Based on Human Evidence. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use water spray to cool unopened containers. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustible dust formation is a risk. Oxidizing hazardous materials. Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid dust generation. Remove heat, sparks, and all sources of ignition. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

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Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Sweep up and shovel. Contain spillage. Collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid dust generation. Combustible dust formation is a risk. Remove heat, sparks, and all sources of ignition. Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

No applicable occupational exposure limits

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection:

Face shield and safety glasses are appropriate eye protection. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before re-wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

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Appearance (physical state,color):	Light yellow solid	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Not Determined	Vapor pressure:	271 °C at 25 °C
Odor threshold:	Not Determined	Vapor density:	Not Determined
pH-value:	8-9 (10 g/l aq.sol)	Relative density:	2.168 g/cm3
Melting/Freezing point:	271 °C	Solubilities:	Soluble in water: 820 g/l at 20 °C
Boiling point/Boiling range:	320 °C	Partition coefficient (n-octanol/water):	log Pow: -3.7 at 25 °C
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	510°C
Evaporation rate:	Not Determined	Decomposition temperature:	> 320°C
Flammability (solid,gaseous):	Flammable	Viscosity:	a. Kinematic:Not Determined b. Dynamic: Not Determined
Density: Not Determined			
Additional property:: Hygroscopic (absorbs moisture from the air)			

SECTION 10 : Stability and reactivity

Reactivity:Hygroscopic.Oxidizing hazardous materials

Chemical stability:Stable at room temperature in closed containers under normal storage and handling conditions. Unstable if heated, may explode at temperatures greater than 533°C

Possible hazardous reactions:Combustible dust formation is a risk.Remove heat, sparks, and all sources of ignition.None under normal processing.

Conditions to avoid:Incompatible materials.Ignition sources, dust generation, exposure to air, exposure to moist air or water, temperatures above 320°C

Incompatible materials:Reducing agents, acids, amines, chlorates, permanganates, cyanides (e.g. potassium cyanide, sodium cyanide), metals as powders (e.g. hafnium, raney nickel), hypophosphites, sulfites, tannic acid, organic matter, antipyrine, ammonium salts, acetanilide, iodides, mercury salts, moisture, air, activated carbon, vegetable astringents. Ammonia, Combustible material

Hazardous decomposition products:Nitrogen oxides. Sodium oxides

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	7632-00-0	LD50 Oral - Rat - 157.9 mg/kg
Chronic Toxicity: No additional information.		
Corrosion Irritation:		
Ocular:	7632-00-0	Eyes - Rabbit Result: Eye irritation - 24 h
Sensitization:		No additional information.
Single Target Organ (STOT):		No additional information.
Numerical Measures:		No additional information.

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Carcinogenicity:	Literature: Animal studies have reported the development of tumors. Sodium nitrate may react with secondary or tertiary amines to form nitrosamines (certain nitrosamines are cancer suspect agents) NTP (National Toxicology Program): Evidence of Carcinogenicity - Equivocal Evidence (TR-495); Male Rat - No Evidence; Female Rat - No Evidence; Male Mice - No Evidence; Female Mice [Sodium nitrite 7632-00-0]
Mutagenicity:	Laboratory experiments have resulted in mutagenic effects
Reproductive Toxicity:	May cause reproductive and fetal effects

SECTION 12 : Ecological information

Ecotoxicity

7632-00-0: flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 0.94 - 1.92 mg/l - 96.0 h

7632-00-0: mortality NOEC - Oncorhynchus mykiss (rainbow trout) - 0.54 mg/l - 96.0 h

7632-00-0: EC50 - Daphnia magna (Water flea) - 12.5 mg/l - 48 h

7632-00-0 : NOEC - Desmodesmus subspicatus (green algae) - 100 mg/l - 72 h

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility in soil: No information available.

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number

1500

UN proper shipping name

Sodium nitrite

Transport hazard class(es)

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Class:

6.1 Toxic substances

Packing group:III

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

7632-00-0 Sodium nitrite (1.0 % de minimis concentration)

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

7632-00-0 Sodium nitrite 100 lbs

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

7632-00-0 Sodium nitrite

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: . The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to

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instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

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