



Sodium Nitrite

Safety Data Sheet

according to US HazCom 2012
Issue date: 27 October 2023

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Trade name	: Sodium Nitrite
Chemical name	: Sodium Nitrite
CAS-No.	: 7632-00-0
Product code	: B2A102
Formula	: HNO ₂ .Na
Synonyms	: Sodium Nitrite / SODIUM NITRITE / Nitrous acid, sodium salt (1:1) / Nitrous acid, sodium salt / Diazotizing salts

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Laboratory use
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1.3. Supplier

Advanced Instruments LLC
2 Technology Way
Norwood, Massachusetts 02062
1 (781) 320-9000
info@aicompanies.com

1.4. Emergency telephone number

Emergency number	: 1 (877) 740-5015
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Oxidizing solids Category 3
Acute toxicity (oral) Category 3

May intensify fire; oxidizer
Toxic if swallowed

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: May intensify fire; oxidizer
Toxic if swallowed

Precautionary statements (GHS US)

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep/Store away from clothing and other combustible materials
Take any precaution to avoid mixing with combustible materials
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye protection, face protection, protective gloves.
If swallowed: Immediately call a poison center or doctor.
Rinse mouth.
In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, Water spray or fog to extinguish.
Store locked up.

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Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Material is hygroscopic.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS US classification
Sodium Nitrite (Main constituent)	CAS-No.: 7632-00-0	100	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately. Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Wash skin with plenty of water. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if ill effect or irritation develops.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact : Dust may cause mechanical irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide. dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

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| Fire hazard | : May intensify fire; oxidizer. Not combustible but enhances combustion of other substances. On combustion forms: Nitrogen oxides. Sodium oxides (NaOx). |
| Explosion hazard | : Oxidizer. Could ignite combustibles (wood, paper, oil, clothing, etc.). May cause fire or explosion; strong oxidizer. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapors. |

5.3. Special protective equipment and precautions for fire-fighters

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| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : Evacuate unnecessary personnel. Keep away from clothing and other combustible materials. Avoid contact with spilled material. No flames, no sparks. Eliminate all sources of ignition. |
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6.1.1. For non-emergency personnel

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| Protective equipment | : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Ventilate spillage area. Keep away from combustible material. |

6.1.2. For emergency responders

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| Protective equipment | : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Eliminate ignition sources. Ventilate area. Keep away from combustible material. |

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

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| For containment | : Use non-sparking tools. Collect spillage. |
| Methods for cleaning up | : Mechanically recover the product. Keep away from clothing and other combustible materials. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose in a safe manner in accordance with local/national regulations. |

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Precautions for safe handling | : Ensure good ventilation of the work station. Take any precaution to avoid mixing with combustible materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. |
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Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.
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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Material is hygroscopic. Protect from moisture.
Storage conditions	: Keep container tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep/Store away from clothing and other combustible materials. Store locked up.
Incompatible materials	: Combustible materials. Acids. Strong reducing agents. Powdered metals. Aluminum. Hydrochloric acid. Cyanides. Urea. ammonium salts.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium Nitrite (7632-00-0)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Impermeable protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear fire/flammable resistant/retardant clothing.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protective device with a particle filter. P3

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Tablet.
Color	: White Yellowish
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: 271 °C (518 °F; decomposition)
Freezing point	: 271 °C (518 °F; decomposition)
Boiling point	: 320 °C (decomposition)

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Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 2.17 g/cm ³ (20 °C; 68°F)
Solubility	: Water: 820 g/l (20 °C; 68 °F)
Partition coefficient n-octanol/water (Log Pow)	: -3.7 (25 °C; 77 °F))
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

May cause or intensify fire; oxidizer. Contact with combustible material may cause fire. Danger of explosion on contact with : Incompatible materials. Material is hygroscopic.

10.2. Chemical stability

The product is stable at normal handling and storage conditions. Exothermic reaction on contact with : Ethylene oxide.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Protect from moisture.. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials. Acids. Strong reducing agents. Powdered metals. Aluminum. Hydrochloric acid. Cyanides. Urea. ammonium salts.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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LD50 oral rat	85 mg/kg
LC50 Inhalation - Rat	5.5 mg/l/4h

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)

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Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: Not applicable
Symptoms/effects after eye contact	: Dust may cause mechanical irritation.
Symptoms/effects after ingestion	: Toxic if swallowed.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Sodium Nitrite (7632-00-0)

LC50 - Fish [1]	0.19 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
LC50 - Fish [2]	0.092 – 0.13 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability

Sodium Nitrite (7632-00-0)

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Sodium Nitrite (7632-00-0)

Partition coefficient n-octanol/water (Log Pow)	-3.7 (25 °C; 77 °F)
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
1500	UN1500	1500	1500
14.2. Proper Shipping Name			
Sodium nitrite	SODIUM NITRITE	SODIUM NITRITE	Sodium nitrite

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DOT	TDG	IMDG	IATA
14.3. Transport hazard class(es)			
5.1 (6.1)	5.1 (6.1)	5.1 (6.1)	5.1 (6.1)
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
<p>Consult the associated transport regulations for available and applicable exceptions or exemptions.</p> <p>The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regard to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.</p> <p>This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.</p>			

SECTION 15: Regulatory information

15.1. US Federal regulations

Sodium Nitrite (7632-00-0)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ

100 lb

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S

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100%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

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100%

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15.2. International regulations

Sodium Nitrite (7632-00-0)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

15.3. US State regulations

Sodium Nitrite (7632-00-0)

State or local regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to US HazCom 2012

Revision date : 23 June 2023

Other information : None.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.