



Fisher Scientific

Part of Thermo Fisher Scientific

Material Safety Data Sheet

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Sodium nitrite
Cat No.	S338-3; S347-3; S347-10; S347-250; S347-500
Synonyms	Nitrous acid, sodium salt (Flakes/Crystalline/USP/FCC/Certified ACS)
Recommended Use	Laboratory chemicals
Company	Emergency Telephone Number
Fisher Scientific	CHEMTREC®, Inside the USA: 800-
One Reagent Lane	424-9300
Fair Lawn, NJ 07410	CHEMTREC®, Outside the USA: 703-
Tel: (201) 796-7100	527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Oxidizer: Contact with combustible/organic material may cause fire. Toxic if swallowed. May cause central nervous system effects. May cause cyanosis. May cause methemoglobinemia. May cause skin, eye, and respiratory tract irritation. Very toxic to aquatic organisms.

Appearance Light yellow

Physical State Solid

odor No information available

Target Organs Blood, Cardiovascular system, Central nervous system (CNS), Liver, Kidney

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

May cause irritation.

Skin

May cause irritation. May be harmful in contact with skin.

Inhalation

May cause irritation of respiratory tract. May be harmful if inhaled.

Ingestion

Toxic if swallowed. May cause central nervous system effects. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood).. May cause methemoglobinemia. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Tumorigenic effects have been reported in experimental animals.. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Sodium nitrite	7632-00-0	>95

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point No information available.
Method No information available.

Autoignition Temperature 510°C / 950°F

Explosion Limits
Upper No data available
Lower No data available

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.
Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health 3** **Flammability 0** **Instability 2** **Physical hazards OX**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Keep people away from and upwind of spill/leak.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Keep combustibles (wood, paper, oil, etc) away from spilled material. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Handling	Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Keep away from clothing and other combustible materials.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Store under an inert atmosphere.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Light yellow
odor	No information available
Odor Threshold	No information available.
pH	8-9 (10 g/l aq.sol)
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point/Range	320°C / 608°F
Melting Point/Range	271°C / 519.8°F
Decomposition temperature	> 320°C
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	No information available.
log Pow	No data available
Molecular Weight	69
Molecular Formula	N Na O2

10. STABILITY AND REACTIVITY

Stability	Oxidizer: Contact with combustible/organic material may cause fire.
Conditions to Avoid	Incompatible products. Excess heat. Combustible material. Avoid dust formation. Exposure to moist air or water.
Incompatible Materials	Acids, Amines, Reducing agents, Oxidizing agents, Combustible material
Hazardous Decomposition Products	Nitrogen oxides (NOx), Sodium oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium nitrite	85 mg/kg (Rat)	Not listed	5.5 mg/L (Rat) 4 h

Irritation	No information available.
Toxicologically Synergistic Products	No information available.

Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Sodium nitrite	Not listed	Group 2A	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects	Developmental effects have occurred in experimental animals.
Teratogenicity	Teratogenic effects have occurred in experimental animals..
Other Adverse Effects	Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium nitrite	Not listed	Oncorhynchus mykiss: LC50 = 0.09-0.13 mg/L 96h	Not listed	12.5-100 mg/L 48h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

Component	log Pow
Sodium nitrite	-3.7

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods 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 to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No	UN1500
Proper Shipping Name	SODIUM NITRITE
Hazard Class	5.1

14. TRANSPORT INFORMATION

Subsidiary Hazard Class 6.1
Packing Group III

TDG

UN-No UN1500
Proper Shipping Name SODIUM NITRITE
Hazard Class 5.1
Subsidiary Hazard Class 6.1
Packing Group III

IATA

UN-No UN1500
Proper Shipping Name Sodium nitrite
Hazard Class 5.1
Subsidiary Hazard Class 6.1
Packing Group III

IMDG/IMO

UN-No UN1500
Proper Shipping Name Sodium nitrite
Hazard Class 5.1
Subsidiary Hazard Class 6.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Sodium nitrite	X	X	-	231-555-9	-		X	X	X	X	KE-31546 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Sodium nitrite	7632-00-0	>95	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Sodium nitrite	X	100 lb	-	-

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium nitrite	100 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium nitrite	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade 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.

WHMIS Hazard Class

C Oxidizing materials

D1B Toxic materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS