

SAFETY DATA SHEET

SODIUM NITRITE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	7632-00-0
EC number:	231-555-9
1.2 SYNONYMS:	• Sodium nitrite • Nitrous acid • sodium salt • Sodium nitroxide

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Oxidizing Solid (Category 3) Acute Toxicity, Oral (Category 3) Skin Irritation (Category 2) Eye Irritation (Category 2A) Specific Target Organ Toxicity - Single Exposure (Category 3) Carcinogenicity (Category 2)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H272: May intensify fire; oxidizer. H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H351: Suspected of causing cancer. H400: Very toxic to aquatic life.

	H410: Very toxic to aquatic life with long-lasting effects
Precautionary Statements:	P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. P220: Keep/Store away from clothing/combustible materials. P280: Wear protective gloves, protective clothing, eye protection, and face protection. P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, leading to symptoms such as coughing, shortness of breath, and difficulty breathing.
Ingestion:	can be toxic, causing symptoms such as nausea, vomiting, dizziness, headache, and potentially leading to methemoglobinemia, which impairs the blood's ability to carry oxygen.

Skin Contact:	can cause irritation, resulting in redness, itching, and potential inflammation.
Eye contact:	can cause serious irritation, leading to redness, tearing, and discomfort.
Chronic Exposure:	can potentially lead to long-term health effects, including an increased risk of cancer due to the formation of nitrosamines, as well as potential damage to the blood and respiratory system.
Aggravation of pre-existing conditions:	may aggravate pre-existing conditions such as respiratory disorders (e.g., asthma), blood disorders (e.g., methemoglobinemia), and cardiovascular diseases, as it can impair oxygen transport and irritate the respiratory system.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 7632-00-0 SODIUM NITRITE
Identification number(s):	EC number: 231-555-9

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Immediately administer a corticosteroid from a controlled/metered dose inhaler. Consult a physician.

After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Acute exposure include acute toxicity (e.g., nausea, vomiting, dizziness, and headache) after ingestion, respiratory irritation after inhalation, skin and eye irritation, and delayed effects such as methemoglobinemia, which impairs oxygen delivery to tissues.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam.
5.2 Special hazards arising from the substance or mixture:	Special hazards arising include its potential to release toxic nitrogen oxides (NOx) when heated, its oxidizing nature that can intensify fires, and the formation of carcinogenic nitrosamines when it reacts with amines, especially in food under high temperatures.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.

5.4 further information:	no data available
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
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7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.

Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Crystalline powder
Colour:	White to pale yellow
Odour:	Odourless
pH-value:	Alkaline
Melting point/Melting range:	271°C
Boiling point/Boiling range:	Not applicable
Flammability (solid, gaseous):	Non-flammable
Ignition temperature:	Not applicable
Decomposition temperature:	300°C
Self-igniting:	Not applicable
Flash point:	Not applicable
Danger of explosion:	Not applicable
Explosion limits: Lower:	Not applicable
Explosion limits: Upper:	Not applicable
Vapour pressure:	Not applicable
Density at 20 °C:	2.17 g/cm ³
Relative density:	2.17
Vapour density:	Not applicable
Evaporation rate:	Not applicable

Solubility in / Miscibility with- water at 20 °C:	Highly soluble
Partition coefficient:(n- octanol/water)	Not applicable
Viscosity:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity	can react with a variety of substances, including flammable materials and reducing agents, potentially leading to dangerous reactions. ng fires as it is a strong oxidizer.
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	Combustible materials, Reducing agents, acids, amines.
10.4 Conditions to avoid	High temperature, moisture, Heat, sparks, or open flames.
10.5 Incompatible materials	Flammable materials, strong reducing agents, acids, amines
10.6 Hazardous decomposition products	Nitrogen oxides, oxygen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): no data available LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	Causes skin irritation.
Serious eye damage/irritation:	Causes eye irritation.
Respiratory damage/irritation:	Causes respiratory irritation upon inhalation.

Ingestion:	Can lead to nausea, vomiting, dizziness, and methemoglobinemia.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	Causes respiratory irritation and methemoglobinemia.
Specific target organ toxicity - repeated exposure:	can lead to blood disorders and cancer risks.
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	not biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish):no data available EC50(daphnia): no data available EC50(algae): no data available
12.2 Persistence and degradability:	Not biodegradable and persistent
12.3 Bioaccumulative potential:	low bioaccumulative
12.4 Mobility in soil:	High mobility
12.5 Other adverse effects:	Contributes to nitrogen oxide pollution and acidification, harming aquatic ecosystems and contributing to air pollution.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water, sodium bicarbonate, Mild detergents.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	1500
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	SODIUM NITRITE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	5.1
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	Yes, harmful for aquatic life.
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is not classified in listed substance.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.