

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date : 2022/09/10

Version: 7.0

Page: 1/11

(30046436/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Sodium Nitrite HQ free flowing (non-food grade)

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Unsuitable for use: Not intended for sale to or use by the general public.

Recommended use*: Raw material; Intermediate; corrosion inhibitor; Surface treatment agent

Suitable for use in industrial sector: chemical industry; metal-working

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION

100 Park Avenue

Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Molecular formula:

NANO(2)

Chemical family:

inorganic compounds

Synonyms:

Sodium Nitrite

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10

Version: 7.0

Page: 2/11

(30046436/SDS_GEN_US/EN)

Ox. Sol.	2	Oxidising solids
Acute Tox.	3 (oral)	Acute toxicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	1	Hazardous to the aquatic environment - acute

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

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

Precautionary Statements (Prevention):

P273	Avoid release to the environment.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection or face protection.
P280	Wear eye protection.
P264	Wash contaminated body parts thoroughly after handling.
P220	Keep away from clothing and other combustible materials.

Precautionary Statements (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 physician.
P330	Rinse mouth
P391	Collect spillage.
P337 + P313	If eye irritation persists: Get medical attention.
P370 + P378	In case of fire: Use water spray for extinction.

Precautionary Statements (Storage):

P405	Store locked up.
------	------------------

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
------	---

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture. No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10
Version: 7.0

Page: 3/11
(30046436/SDS_GEN_US/EN)

sodium nitrite
CAS Number: 7632-00-0
Content (W/W): ≥ 75.0 - $\leq 100.0\%$
Synonym: Sodium nitrite

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. Seek medical attention.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:

Rinse mouth and then drink 200-300 ml of water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause: vomiting, convulsions, cyanosis, death, coma, methaemoglobinaemia, nausea

Hazards: Risk of pulmonary edema. Symptoms can appear later. Danger of methaemoglobin formation after ingestion.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray

Unsuitable extinguishing media for safety reasons:
ABC powder, carbon dioxide

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10

Version: 7.0

Page: 4/11

(30046436/SDS_GEN_US/EN)

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire. Has a fire-promoting effect due to release of oxygen.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Substance/product is an oxidizing agent and can supply oxygen to stimulate or accelerate the combustion of organic or other combustible substances/products.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with eyes.

Environmental precautions

This product is regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

Spills should be contained and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Keep container tightly sealed. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Processing machines must be fitted with local exhaust ventilation. Protect against moisture. Protect against heat. Do not mix with combustible substances. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

The substance/product is non-combustible. Has a fire-promoting effect due to release of oxygen. Where required Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities

Segregate from oxidizable substances. Segregate from acids. Segregate from ammonium salts.

Suitable materials for containers: Carbon steel (Iron), Stainless steel 1.4541, Stainless steel 1.4571, High density polyethylene (HDPE), Low density polyethylene (LDPE), rubberized

Further information on storage conditions: Keep container tightly closed and in a well-ventilated place. This product is classified as a dangerous substance for storage. The authority permits and storage regulations must be observed. Keep away from food, drink and animal feeding stuffs.

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10

Version: 7.0

Page: 5/11

(30046436/SDS_GEN_US/EN)

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Advice on system design:

Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Suitable materials, polyvinylchloride (Pylox), nitrile rubber (Buna N), chloroprene rubber (Neoprene), Consult with glove manufacturer for testing data.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Avoid inhalation of dust. Wear protective clothing as necessary to prevent contact. Take off immediately all contaminated clothing.

9. Physical and Chemical Properties

Form:	crystalline
Odour:	faint odour
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	white to slightly yellow
pH value:	7 - 9 (100 g/l) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Melting point:	280 °C
Freezing point:	No data available.
Boiling point:	(1,013.25 hPa) The substance / product decomposes therefore not determined.
Flash point:	Study scientifically not justified.
Flammability:	not highly flammable not self-igniting (other)
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Vapour pressure:	Study scientifically not justified.

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10

Version: 7.0

Page: 6/11

(30046436/SDS_GEN_US/EN)

Density:	2.17 g/cm ³ (20 °C) Information based on the main component/s.	(ISO 2811-3)
Relative density:	2.17 (20 °C) Literature data.	
Bulk density:	1,100 - 1,300 kg/m ³	
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	> 320 °C nitrogen monoxide, nitrogen dioxide, disodium oxide	
Viscosity, dynamic:	Study scientifically not justified.	
Viscosity, kinematic:	No data available.	
Solubility in water:	readily soluble	
Evaporation rate:	The product is a non-volatile solid.	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated. In the presence of water or moisture metal corrosion cannot be excluded.

Oxidizing properties:

Oxidizing.

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

The product is stable if stored and handled as prescribed/indicated. Reacts with organic substances. Hazardous reactions in presence of mentioned substances to avoid.

Conditions to avoid

Avoid heating while in contact with easily oxidizable materials.

Incompatible materials

reducing agents, oxidizable substances, ammonium salts, amines, amine compounds, acids

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: disodium oxide, nitrogen oxides

Thermal decomposition:

> 320 °C

Possible thermal decomposition products:

nitrogen monoxide, nitrogen dioxide, disodium oxide

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10
Version: 7.0

Page: 7/11
(30046436/SDS_GEN_US/EN)

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of high toxicity after single ingestion. There is a risk of damage to the blood (methemoglobinemia) after a single uptake.

Oral

Type of value: LD50
Species: rat
Value: 180 mg/kg

Inhalation

Study scientifically not justified.

Dermal

Study scientifically not justified.

Assessment other acute effects

Assessment of STOT single:

There is a risk of damage to the blood (methemoglobinemia) after a single uptake.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Skin

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye

Species: rabbit
Result: Irritant.
Method: OECD Guideline 405

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Study scientifically not justified.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: After repeated administration the prominent effect is damage of the blood (methemoglobin formation).

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10

Version: 7.0

Page: 8/11

(30046436/SDS_GEN_US/EN)

Genetic toxicity

Information on: sodium nitrite

Assessment of mutagenicity: The data available on mutagenic action are not consistent.

Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by drinking-water, a carcinogenic effect was not observed. Under certain conditions nitrites can enhance the formation of nitrosamines in vivo. Nitrosamines are carcinogenic in animal studies.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: In animal studies the substance did not cause malformations. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. After the uptake of small doses toxicity to development will not be expected in humans.

Other Information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) 0.54 - 26.3 mg/l, *Salmo gairdneri*, syn. *O. mykiss* (other, Flow through.)

Aquatic invertebrates

LC50 (96 h) 4.93 mg/l, aquatic crustacea (static)

Literature data.

EC50 (48 h) 15.4 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) > 100 mg/l (growth rate), *Scenedesmus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

No observed effect concentration (31 d) 6.16 mg/l, *Ictalurus punctatus*, syn: *I. robustus* (other, Flow through.)

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10
Version: 7.0

Page: 9/11
(30046436/SDS_GEN_US/EN)

Chronic toxicity to aquatic invertebrates

No observed effect concentration (80 d) 9.86 mg/l, aquatic crustacea (Daphnia test chronic, static)

Assessment of terrestrial toxicity

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 static

activated sludge, domestic/EC10 (3 h): 210 mg/l

The details of the toxic effect relate to the nominal concentration.

other static

other protozoa/EC50 (48 h): 421 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or be reduced to nitrogen, by microorganisms.

Elimination information

not applicable

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)

not applicable

Bioaccumulative potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

Bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Do not release untreated into natural waters. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10
Version: 7.0

Page: 10/11
(30046436/SDS_GEN_US/EN)

13. Disposal considerations

Waste disposal of substance:

Do not discharge substance/product into sewer system. Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Hazard class: 5.1
Packing group: III
ID number: UN 1500
Hazard label: 5.1, 6.1, EHSM
Proper shipping name: SODIUM NITRITE

Sea transport

IMDG

Hazard class: 5.1
Packing group: III
ID number: UN 1500
Hazard label: 5.1, 6.1, EHSM
Marine pollutant: YES
Proper shipping name: SODIUM NITRITE

Air transport

IATA/ICAO

Hazard class: 5.1
Packing group: III
ID number: UN 1500
Hazard label: 5.1, 6.1
Proper shipping name: SODIUM NITRITE

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released; restriction on use / listed

TSCA § 5(a) final Significant New Use Restriction (SNUR)
40 CFR 721.4740

Safety Data Sheet

Sodium Nitrite HQ free flowing (non-food grade)

Revision date: 2022/09/10
Version: 7.0

Page: 11/11
(30046436/SDS_GEN_US/EN)

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

NFPA Hazard codes:

Health: 2 Fire: 0 Reactivity: 1 Special:

HMIS III rating

Health: 2 Flammability: 0 Physical hazard: 1

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Ox. Sol.	2	Oxidising solids
Acute Tox.	3 (oral)	Acute toxicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	1	Hazardous to the aquatic environment - acute

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2022/09/10

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use.

Any other intended applications should be discussed with the manufacturer.

END OF DATA SHEET