

# Safety Data Sheet

## Sodium nitrate HQ untreated (non-food grade)

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(30216100/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## Sodium nitrate HQ untreated (non-food grade)

#### Recommended use of the chemical and restriction on use

Recommended use\*: Chemical

Recommended use\*: for industrial use only

\* 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

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### 2. Hazards Identification

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

#### Classification of the product

Ox. Sol.	2	Oxidising solids
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation

#### Label elements

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Pictogram:



Signal Word:

Danger

Hazard Statement:

H272 May intensify fire; oxidizer.

H320 Causes eye irritation.

Precautionary Statements (Prevention):

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.

P220 Keep away from clothing and other combustible materials.

P264 Wash contaminated body parts thoroughly after handling.

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.

P337 + P311 If eye irritation persists: Call a POISON CENTER or physician.

P370 + P378 In case of fire: Use water spray for extinction.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

### 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.

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## 3. Composition / Information on Ingredients

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

Sodium nitrate

CAS Number: 7631-99-4

Content (W/W): >= 75.0 - <= 100.0%

Synonym: Nitric acid, sodium salt

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## 4. First-Aid Measures

### Description of first aid measures

**General advice:**

Remove contaminated clothing.

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### If inhaled:

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

### If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, 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:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

## Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause: vomiting, methaemoglobinaemia, weakness, abdominal cramps, diarrhea, headache

Hazards: 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.

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:  
water spray

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

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
nitrogen oxides

The substances/groups of substances mentioned can be released if the product is involved in a fire.

### 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.

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### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Avoid inhalation. Avoid contact with skin and eyes.

#### Environmental precautions

Do not release untreated into natural waters.

#### Methods and material for containment and cleaning up

For large amounts: Do not use saw-dust or other combustible substances as an absorbant during cleanup. Sweep/shovel up. Place into suitable container for disposal. See SDS section 10 - Stability and reactivity. Avoid raising dust.

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### 7. Handling and Storage

#### Precautions for safe handling

Keep container tightly sealed. Ensure suitable air extract/ventilation on process machinery and transportation equipment. Protect against moisture. Protect against heat. Keep away from sources of ignition - No smoking.

Protection against fire and explosion:

Warning: Bags made of polyethylene may create electrostatic discharges capable of igniting combustible dust clouds and ambient flammable gases or vapors. Do not handle in flammable atmospheres.

#### Conditions for safe storage, including any incompatibilities

Segregate from oxidizable substances. Segregate from reducing agents. Segregate from ammonium salts.

Suitable materials for containers: Stainless steel 1.4541, Stainless steel 1.4571, High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyester resin, glass reinforced (Palatal A410), glass, enamelled, Carbon steel (Iron), rubberized, Aluminium

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

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### 8. Exposure Controls/Personal Protection

No occupational exposure limits known.

#### Advice on system design:

Provide adequate exhaust ventilation to control work place concentrations.

#### Personal protective equipment

Respiratory protection:

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

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### Hand protection:

Chemical resistant protective gloves (EN ISO 374-1), Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1);, polyvinylchloride (PVC) - 0.7 mm coating thickness, nitrile rubber (NBR) - 0.4 mm coating thickness, chloroprene rubber (CR) - 0.5 mm coating thickness, butyl rubber (butyl) - 0.7 mm coating thickness, fluoroelastomer (FKM) - 0.7 mm coating thickness,

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing., Manufacturer's directions for use should be observed because of great diversity of types.

### Eye protection:

Tightly fitting safety goggles (chemical goggles).

### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

### 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. Remove contaminated clothing. Avoid all contact with the substance.

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## 9. Physical and Chemical Properties

Form:	granules
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
Colour:	white
pH value:	8 - 9 ( 100 g/l, 20 °C)
Melting point:	307 °C Literature data.
Boiling point:	( 1,013.25 hPa) The substance / product decomposes therefore not determined.
Flash point:	Study scientifically not justified.
Flammability:	not highly flammable (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:	The value has not be determined because of the high melting point.
Density:	2.26 g/cm <sup>3</sup> ( 20 °C) Literature data.
Relative density:	2.26 Literature data.
Bulk density:	approx. 1,300 kg/m <sup>3</sup>
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.

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Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting. Study scientifically not justified.
Thermal decomposition:	> 600 °C Oxygen, nitrogen, disodium oxide
Viscosity, dynamic:	Study scientifically not justified.
Solubility in water:	874 g/l ( 20 °C)
Evaporation rate:	The product is a non-volatile solid.

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## 10. Stability and Reactivity

### Reactivity

Corrosion to metals:  
No data available.

Oxidizing properties:  
Oxidizing. (Directive 92/69/EEC, A.17)

### Chemical stability

Peroxides: The product does not contain peroxides. The product/the substance has not a tendency towards the formation of peroxide.

### Possibility of hazardous reactions

Reacts with reducing agents. Reacts with oxidizing agents.

### Conditions to avoid

See SDS section 7 - Handling and storage. Avoid heating while in contact with easily oxidizable materials.

### Incompatible materials

reducing agents, oxidizable substances, ammonium compound

### Hazardous decomposition products

Decomposition products:  
Hazardous decomposition products: disodium oxide

Thermal decomposition:  
> 600 °C  
Possible thermal decomposition products:  
Oxygen, nitrogen, disodium oxide

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## 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.

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### Acute Toxicity/Effects

#### Acute toxicity

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

#### Oral

Type of value: LD50

Species: rat

Value: 3,430 mg/kg (OECD Guideline 401)

#### Inhalation

Study does not need to be conducted.

#### Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg (OECD Guideline 402)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### 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. May cause slight irritation to the eyes.

#### Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Eye

Species: rabbit

Result: Slightly irritating.

Method: OECD Guideline 405

#### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: Non-sensitizing.

Method: OECD Guideline 429

#### Aspiration Hazard

Study does not need to be conducted.

### Chronic Toxicity/Effects

#### Repeated dose toxicity

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Assessment of repeated dose toxicity: The substance may cause damage to the hematological system after repeated ingestion.

### Genetic toxicity

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

### Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. Under certain conditions the substance can form nitrosamines. 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. The results were determined in a Screening test (OECD 421/422). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The results were determined in a Screening test (OECD 421/422). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful 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) 7,950 mg/l, *Oncorhynchus tshawytscha* (static)  
Literature data. Nominal concentration.

#### Aquatic invertebrates

EC50 (24 h) 8,609 mg/l, *Daphnia magna* (*Daphnia* test acute, static)

#### Aquatic plants

EC50 (10 d) > 1,700 mg/l (chlorophyll content), algae (static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Chronic toxicity to fish

Study scientifically not justified.

#### Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

#### Assessment of terrestrial toxicity

No data available.



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### Microorganisms/Effect on activated sludge

#### Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge, domestic/EC10 (3 h): 180 mg/l

### Persistence and degradability

#### Assessment biodegradation and elimination (H<sub>2</sub>O)

Not applicable for inorganic substances. 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.

Study scientifically not justified.

### Bioaccumulative potential

#### Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

#### Bioaccumulation potential

Study scientifically not justified.

### 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:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

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## 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.

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## 14. Transport Information

### Land transport

USDOT

Hazard class: 5.1

Packing group: III

ID number: UN 1498

Hazard label: 5.1

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Proper shipping name: SODIUM NITRATE

### Sea transport IMDG

Hazard class: 5.1  
Packing group: III  
ID number: UN 1498  
Hazard label: 5.1  
Marine pollutant: NO  
Proper shipping name: SODIUM NITRATE

### Air transport IATA/ICAO

Hazard class: 5.1  
Packing group: III  
ID number: UN 1498  
Hazard label: 5.1  
Proper shipping name: SODIUM NITRATE

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

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

#### EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
7631-99-4	Sodium nitrate

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
100 LBS	7632-00-0	sodium nitrite

#### 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
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation
Acute Tox.	5 (oral)	Acute toxicity

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### 16. Other Information

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

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