

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.2  
Creation Date: July 15, 2019  
Revision Date: August 08, 2025

## SECTION 1: Identification

### 1.1 GHS Product identifier

Product name Sodium Nitrite Standard Solution

### 1.2 Other means of identification

Product number CPRM2936

Other names Sodium,nitrite;sodium nitrite;Filmerine

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses For laboratory and Industrial use only.

Uses advised against no data available

### 1.4 Supplier's details

Company CATO Research Chemicals Inc.

Address 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou

Telephone +86-20-81960175

### 1.5 Emergency phone number

Emergency phone number +86-20-81960175

Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Oxidizing solids, Category 3

Acute toxicity - Category 3, Oral

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H272 May intensify fire; oxidizer

H301 Toxic if swallowed

H400 Very toxic to aquatic life

Precautionary statement(s)

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep away from clothing and other combustible materials.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response

P370+P378 In case of fire: Use ... to extinguish.

P301+P316 IF SWALLOWED: Get emergency medical help immediately.

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

## 2.3 Other hazards which do not result in classification

no data available

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

| Chemical name                    | Common names and synonyms | CAS number | EC number | Concentration |
|----------------------------------|---------------------------|------------|-----------|---------------|
| Sodium Nitrite Standard Solution | Sodium nitrite            | 7632-00-0  | 231-555-9 | 100%          |

# SECTION 4: First-aid measures

## 4.1 Description of necessary first-aid measures

### If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

### Following skin contact

First rinse with plenty of water for at least 15 minutes, then remove contaminated clothes and rinse again.

### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

### Following ingestion

Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give one or two glasses of water to drink. Refer for medical attention .

## 4.2 Most important symptoms/effects, acute and delayed

no data available

## 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

# SECTION 5: Fire-fighting measures

## 5.1 Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

## 5.2 Specific hazards arising from the chemical

Not combustible but enhances combustion of other substances. Many reactions may cause fire or explosion. Gives off irritating or toxic fumes (or gases) in a fire.

## 5.3 Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: P3 filter respirator for toxic particles. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

## 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

NO contact with combustible substances. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

## 7.2 Conditions for safe storage, including any incompatibilities

Separated from combustible substances, reducing agents and acids. Dry. Well closed.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### Occupational Exposure limit values

no data available

### Biological limit values

no data available

## 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

## 8.3 Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear safety spectacles.

### Skin protection

Protective gloves.

### Respiratory protection

Use local exhaust or breathing protection.

### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

|                                                          |                                                                                                          |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Physical state                                           | Solid. Fine crystalline powder, homogeneous.                                                             |
| Colour                                                   | White, slightly yellowish.                                                                               |
| Odour                                                    | no data available                                                                                        |
| Melting point/freezing point                             | 271 °C.                                                                                                  |
| Boiling point or initial boiling point and boiling range | 320 (broken down)                                                                                        |
| Flammability                                             | no data available                                                                                        |
| Lower and upper explosion limit/flammability limit       | no data available                                                                                        |
| Flash point                                              | no data available                                                                                        |
| Auto-ignition temperature                                | 914°F                                                                                                    |
| Decomposition temperature                                | no data available                                                                                        |
| pH                                                       | no data available                                                                                        |
| Kinematic viscosity                                      | no data available                                                                                        |
| Solubility                                               | Miscible with water                                                                                      |
| Partition coefficient n-octanol/water                    | log Pow = -3.7. Temperature:25 °C.                                                                       |
| Vapour pressure                                          | 0.12 mm Hg. Temperature:524.85 °C.;0.37 mm Hg. Temperature:549.85 °C.;0.65 mm Hg. Temperature:574.85 °C. |
| Density and/or relative density                          | 2.17 g/cm <sup>3</sup> ;1 000 - 1 200 kg/m <sup>3</sup> .                                                |
| Relative vapour density                                  | no data available                                                                                        |
| Particle characteristics                                 | no data available                                                                                        |

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

May explode on heating above 530°C. Decomposes on contact with acids. This produces toxic fumes of nitrogen oxides. The substance is a strong oxidant. It reacts with combustible and reducing materials. This generates fire and explosion hazard. The solution in water is a weak base. Reacts with aluminium, ammonium compounds and amines.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

## 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 - rat (male) - 180 mg/kg bw.
- Inhalation: LC0 - rat (male/female) - 0.095 mg/L air.
- Dermal: no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

The substance is irritating to the eyes. The substance may cause effects on the cardiovascular system and blood. This may result in lower blood pressure and the formation of methaemoglobin. Exposure could cause death. The effects may be delayed. Medical observation is indicated.

### STOT-repeated exposure

no data available

### Aspiration hazard

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: LC50 - *Oncorhynchus mykiss* (previous name: *Salmo gairdneri*) - 0.54 - 26.3 mg/L - 96 h.
- Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* - 15.4 mg/L - 48 h.
- Toxicity to algae: EC50 - *Desmodesmus subspicatus* (previous name: *Scenedesmus subspicatus*) - > 100 mg/L - 72 h.
- Toxicity to microorganisms: EC10 - activated sludge, domestic - 210 mg/L - 180 min. Remarks:Respiration rate.

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport information

### 14.1 UN Number

ADR/RID: UN3287 (For reference only, please check.) IMDG: UN3287 (For reference only, please check.) IATA: UN3287 (For reference only, please check.)

### 14.2 UN Proper Shipping Name

ADR/RID: TOXIC LIQUID, INORGANIC, N.O.S. (For reference only, please check.) IMDG: TOXIC LIQUID, INORGANIC, N.O.S. (For reference only, please check.) IATA: TOXIC LIQUID, INORGANIC, N.O.S. (For reference only, please check.)

### 14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.) IMDG: 6.1 (For reference only, please check.) IATA: 6.1 (For reference only, please check.)

### 14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.) IMDG: I (For reference only, please check.) IATA: I (For reference only, please check.)

### 14.5 Environmental hazards

ADR/RID: Yes IMDG: Yes IATA: Yes

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to IMO instruments

no data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name                                                            | Common names and synonyms | CAS number | EC number |
|--------------------------------------------------------------------------|---------------------------|------------|-----------|
| Sodium nitrite                                                           | Sodium nitrite            | 7632-00-0  | 231-555-9 |
| European Inventory of Existing Commercial Chemical Substances (EINECS)   |                           |            | Listed.   |
| EC Inventory                                                             |                           |            | Listed.   |
| United States Toxic Substances Control Act (TSCA) Inventory              |                           |            | Listed.   |
| China Catalog of Hazardous chemicals 2015                                |                           |            | Listed.   |
| New Zealand Inventory of Chemicals (NZIoC)                               |                           |            | Listed.   |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       |                           |            | Listed.   |
| Vietnam National Chemical Inventory                                      |                           |            | Listed.   |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) |                           |            | Listed.   |
| Korea Existing Chemicals List (KECL)                                     |                           |            | Listed.   |

## SECTION 16: Other information

#### Information on revision

Creation Date July 15, 2019  
Revision Date August 08, 2025

#### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

#### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)



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- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
  - ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
  - ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
  - Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
  - ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

#### Other Information

Rinse contaminated clothing with plenty of water because of fire hazard. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available. Depending on the degree of exposure, periodic medical examination is indicated.

**Any questions regarding this SDS, Please send your inquiry to [info@cato-chem.com](mailto:info@cato-chem.com)**

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