

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 1

Revised edition: 27.03.2021

Version: 12

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### 1. Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1. Product Identifier

*Product Name:* Sodium Nitrite

*Article No.:* 64111

*UFI:* --

#### 1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

*Identified uses:*  
Pharmaceutical production, chemical for research and development

*Uses advised against:*

#### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

*Company:* Kremer Pigmente GmbH & Co. KG

*Address:* Hauptstr. 41-47, 88317 Aichstetten, Germany

*Tel./Fax.:* Tel +49 7565 914480, Fax +49 7565 1606

*Internet:* www.kremer-pigmente.com

*EMail:* info@kremer-pigmente.com

*Importer:* --

#### 1.4. Emergency No.

*Emergency No.:* +49 7565 914480 (Mon-Fri 8:00 - 17:00)

#### 1.4.2 Poison Center:

### 2. Hazards Identification

#### 2.1. Classification of the Substance or Mixture

*Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)*

Oxidizing solids, hazard category 3  
Acute toxicity (oral), hazard category 3  
Eye irritation, hazard category 2  
Acute aquatic toxicity, hazard category 1

H272	May intensify fire; oxidizer.
Cat.: 3	
H301	Toxic if swallowed.
Cat.: 3	
H319	Causes serious eye irritation.
Cat.: 2	
H400	Very toxic to aquatic life.
Cat.: 1	

*Possible Environmental Effects:*

See Section 12.

#### 2.2. Label Elements

*Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)*

*Hazard designation:*

next page: 2

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 2

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021



GHS03-2



GHS06



GHS09

Signal word:

Danger

Hazard designation:

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

Safety designation:

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P220	Keep away from clothing and combustible materials.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P310	Immediately call a poison center or physician.

Hazardous components for labelling:

### 2. 3. Other Hazards

## 3. Composition/Information on Ingredients

### 3. 1. Substance

### 3. 2. Mixture

Chemical Characterization: NaNO2

Information on Components / Hazardous Ingredients:

Sodium nitrite (H272-301-319-400); REACH Reg. No. 01-2119471863-27-xxxx	100 %	CAS-Nr: 7632-00-0 EINECS-Nr: 231-555-9 EC-Nr:
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Additional information:

## 4. First Aid Measures

### 4. 1. Description of the First Aid Measures

General information:

Remove contaminated clothes immediately.

Show this safety data sheet to the doctor in attendance.

next page: 3

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 3

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

---

*After inhalation:*

*Supply fresh air.*

*After skin contact:*

*Wash off with plenty of water.*

*Remove contaminated clothing immediately.*

*After eye contact:*

*Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.*

*After ingestion:*

*Give water to drink (at the most 2 glasses). Consult a physician in case of complaints.*

*Induce vomiting only if medical help is not possible within one hour (only if the affected person is not unconscious).*

*Give active coal (20-40 g in 10% suspension).*

### 4. 2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*Irritant effects, depression of the respiratory funktion, cyanosis, unconsciousness, narcosis, nausea, vomiting, collapse, headache.*

*Effects:*

### 4. 3. Indication of any Immediate Medical Attention and special Treatment needed

*Treatment:*

*Laxans: sodium sulfate (1 spoon / 250 ml H<sub>2</sub>O).*

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## 5. Fire-Fighting Measures

### 5. 1. Extinguishing Media

*Suitable extinguishing media:*

*Use extinguishing media for surrounding fire.*

*Unsuitable extinguishing media:*

*None known.*

### 5. 2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*Product not combustible. Release of hazard fumes by surrounding fire.*

*In case of fire: formation of nitrogen oxides.*

*Is oxidizing due to oxygen release.*

### 5. 3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Wear suitable protective clothing.*

*Further information:*

*Reduce escaping gases/fumes/mist with water spray.*

*Avoid contamination of sewage system, open water ways and ground water.*

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## 6. Accidental Release Measures

next page: 4

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 4

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

---

### 6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

#### *Personal precautions:*

*Avoid contact with skin and eyes. Do not ingest or inhale.  
Avoid inhalation of dust.  
Ensure adequate ventilation.  
Evacuate the danger area, observe emergency procedures,  
consult an expert.*

### 6. 2. Environmental Precautions

#### *Environmental precautions:*

*Do not allow entering sewage system.*

### 6. 3. Methods and Material for Containment and Cleaning Up

#### *Methods and material:*

*Cover drains. Collect, bind and pump off spills.  
Observe possible material restrictions! (see sections 7.2 resp.  
10.5).  
Take up mechanically and collect in suitable container for disposal.  
Rinse spill area. Avoid dust formation.*

### 6. 4. Reference to other Sections

*See Section 13 for information on disposal.*

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## 7. Handling and Storage

### 7. 1. Precautions for Safe Handling

#### *Instructions on safe handling:*

*Avoid contact with eyes, skin and clothing.*

#### *Hygienic measures:*

*Change contaminated clothing. Preventive skin protection  
recommended. Wash hands after work.*

### 7. 2. Conditions for Safe Storage, including any Incompatibilities

#### *Storage conditions:*

*Store in tightly sealed containers in a dry room.  
Keep product shut away or kept in a manner so as to ensure that  
only qualified persons may have access.*

#### *Requirements for storage areas and containers:*

#### *Information on fire and explosion protection:*

*Keep away from sources of ignition - do not smoke.  
Do not store together with flammable products.*

#### *Storage class:*

*5.1 B; Oxidizing substances (TRGS 510)*

#### *Further Information:*

### 7. 3. Specific End Use(s)

#### *Further information:*

*See Section 1.2.; no other uses provided*

---

next page: 5

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 5

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

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### 8. Exposure Controls/Personal Protection

#### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*Does not contain any components with workplace limit values.*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*Predicted No-Effect Concentration (PNEC):*

*Additional Information:*

#### 8.2. Exposure Controls

*Technical protective measures:*

*Technical protective measures have priority to personal protective measures.*

*Personal Protection*

*General protective measures:*

*The usual precautionary measures are to be adhered to when handling chemicals.*

*Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.*

*Respiratory protection:*

*Dust mask recommended when very dusty (with particle filter P3).*

*Hand protection:*

*Chemical protective gloves (EN 374 (Europe), F739 (US)).*

*Protective glove material:*

*For short-term exposure: nitrile rubber (> 480 min, 0.11 mm).*

*For long-term exposure: nitrile rubber (BTT>480 min, 0.11 mm).*

*Eye protection:*

*Safety glasses (EN 166)*

*Body protection:*

*Protective clothing, chemical resistant.*

*Environmental precautions:*

*Do not allow entering sewerage system.*

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### 9. Physical and Chemical Properties

#### 9.1. Information on Basic Physical and Chemical Properties

*Form:* *solid*

*Color:* *white*

*Odor:* *odorless*

*Odor threshold:*  
*no information available*

*pH-Value:* *9 (100 g/l; 20°C)*

next page: 6

## Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



### 64111 Sodium Nitrite

Page 6

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

---

Melting temperature:	271°C (ECHA)
Boiling temperature:	not available
Flash point:	not applicable
Evaporation rate:	No information available.
Flammability (solid, gas):	not available
Upper explosion limit:	no information available
Lower explosion limit:	no information available
Vapor pressure:	not applicable
Vapor density:	No information available.
Density:	2.1 g/cm <sup>3</sup> (20°C)
Solubility in water:	820 g/l (20°C)
Coefficient of variation (n-Octanol/Water):	-3.7 logPOW
Auto-ignition temperature:	No information available.
Decomposition temperature:	> 320°C
Viscosity, dynamic:	not available
Explosive properties:	not explosive
Oxidizing properties:	Product or mixture is classified as oxidizing, category 3.
Bulk density:	1200 kg/m <sup>3</sup>

#### 9. 2. Further Information

Solubility in solvents:  
Viscosity, kinematic:  
Burning class:  
Solvent content:  
Solid content:  
Particle size:  
Other information:

next page: 7

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 7

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

*No further information.*

### 10. Stability and Reactivity

#### 10.1. Reactivity

*Stable if used according to specifications.*

#### 10.2. Chemical Stability

*Stable at room temperature.*

#### 10.3. Possibility of Hazardous Reactions

*Risk of explosion with aluminium, sulfides, cyanides, potassium cyanide, urea, hydrazine and its derivatives, oxidizing agents, unsaturated hydrocarbons, sodium amide, phenol, ethylene oxide, strong reducing agents, ammonium salts, amides, hydrochloric acid, potassium hexacyanoferrate (II).*

*Risk of explosion and/or formation of toxic gases with: acids; amines: release of nitrosamines.*

*Ignition hazard and formation of inflammable gases or vapors with: butadiene*

*Exothermic reaction with ethylene oxide.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Thermal decomposition:*

*Avoid overheating (decomposition).*

#### 10.5. Incompatible Materials

*No information available.*

#### 10.6. Hazardous Decomposition Products

*In the event of fire: see part 5.*

#### 10.7. Further Information

### 11. Toxicological Information

#### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral: 186 mg/kg (rat; RTECS)*

*LD50, dermal: No information available.*

*LC50, inhalation: No information available.*

*Primary effects*

*Irritant effect on skin: Non irritating (rabbit; OECD 404)*

*Irritant effect on eyes: Slight irritant effect (rabbit; OECD 405).*

*Inhalation: No information available.*

*Ingestion: No information available*

next page: 8

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 8

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

---

### *Sensitization:*

*No relevant data found.*

### *Mutagenicity:*

*No relevant data found.*

### *Reproductive toxicity:*

*No impairment of the fertility in animal studies (IUCRID).*

### *Carcinogenicity:*

*No cancerogenic effect (in animal studies).*

### *Teratogenicity:*

*Did not show any teratogenic effects in animal studies (IUCRID).*

### *Specific target organ toxicity (STOT):*

*Single exposure: no information available.*

*Repeated exposure: no information available.*

### *Additional toxicological information:*

*Aspiration hazard: not applicable*

*Handle in accordance with good industrial hygiene and safety practice.*

*Absorption: nausea, narcosis, cyanosis.*

*After resorption of large amounts:*

*Headache, vomiting, unconsciousness, drop in blood pressure, impaired respirations, collapse, methaemoglobinaemia.*

*General effects of nitrates: risk of formation of methemoglobin.*

*Possible formation of nitrosamines, which have proven to be cancerogenic in animal studies.*

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

#### *Fish toxicity:*

*LC50: 0.54 - 26.3 mg/l (96h, Oncorhynchus mykiss; ECHA)*

#### *Daphnia toxicity:*

*EC50: 15.4 mg/l (48h, Daphnia magna; OECD 202)*

#### *Bacteria toxicity:*

*EC50: 510 mg/l (3h; active sludge; OECD 209)*

#### *Algae toxicity:*

*ErC50: > 100 mg/l (72h, Desmodesmus subspicatus; OECD 201)*

*No information available.*

### 12.2. Persistency and Degradability

*Methods for the evaluation of the biological degradability are not applicable for inorganic substances.*

### 12.3. Bioaccumulation

*No bioaccumulation expected.*

### 12.4. Mobility

*No information available.*

### 12.5. Results of PBT- und vPvP Assessment

*PBT/vPvB assessment not available as a chemical safety*

next page: 9



# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 9

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

*assessment is not required / not conducted.*

### 12. 6. Other Adverse Effects

*Water hazard class:*

*2 (German Regulation) (Assessment by list): hazardous.*

*Do not let run into surface waters, waste water or soil.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*AOX Value:*

### 13. Disposal Considerations

#### 13. 1. Waste Treatment Methods

*Product:*

*Dispose of product residues according to the waste disposal guidelines 2008/98/EC as well as according to official national and local regulations.*

*Leave chemical in original containers. Do not mix with other waste.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Contaminated packaging must be disposed like the substance.*

*Waste Code No.:*

### 14. Transport Information

#### 14. 1. UN Number

*ADR, IMDG, IATA* 1500

#### 14. 2. UN Proper Shipping Name

*ADR/RID:* NATRIUMNITRIT

*IMDG/IATA:* SODIUM NITRITE

#### 14. 3. Transport Hazard Classes

*ADR Class:* 5.1 (6.1)

*Hazard no.:* 5.1

*Classification code:* OT2

*Tunnel restriction code:* E

*IMDG Class (sea):* 5.1 (6.1)

*Hazard no.:* 5.1

*EmS No.:* F-A, S-Q

*IATA Class:* 5.1 (6.1)

*Hazard no.:* 5.1

#### 14. 4. Packaging Group

*ADR/RID:* III

*IMDG:* III

next page: 10

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 10

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

IATA: III

### 14.5. Environmental Hazards

Labelling according 5.2.1.8 ADR/RID: fish and tree  
Labelling according 5.2.1.6.3 IMDG: fish and tree  
Classification as environmentally hazardous according 2.9.3  
IMDG: yes

### 14.6. Special Precautions for User

none known

### 14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

not applicable

### 14.8. Further Information

Special Provision: 802

## 15. Regulatory Information

### 15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

3, very hazardous for water (according to the German Regulation AwSV)

Local regulations on chemical accidents:

Seveso-III Directive (2012/18/EU):  
Acute toxic (H2): Amount 1: 50 t; Amount 2: 200 t  
Oxidizing liquids and solids (P8): Amount 1: 50 t; Amount 2: 200 t  
Environmentally hazardous (9a); Amount 1: 100 t; Amount 2: 200 t

Employment restrictions:

The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.  
The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline are to be observed.

Restriction and prohibition of application:

Restricted to professional users.

Technical instructions on air quality:

### 15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.  
EC SVHC-List: This product does not contain a substance in the candidate list for substances of very high concern above the legal limit value (> 0.1 % (w/w) REACH Regulation (EC) 1907/2006, Article 57).

### 15.3. Further Information

Regulation (EC) 2037/2000 - Substances that Deplete the Ozone Layer: not regulated / not applicable  
Regulation (EC) 850/2004 - Persistent organic pollutants and amending Directive 79/117/EEC: not regulated / not applicable  
Regulation (EC) 689/2008 concerning the export and import of dangerous chemicals: not regulated / not applicable

## 16. Other Information

This product should be stored, handled and used in accordance with the next page. 11

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64111 Sodium Nitrite

Page 11

Revised edition: 27.03.2021

Version: 12

Printed: 16.06.2021

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*with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.*