SAFETY DATA SHEET	In accordance with Regulation 1907/2006 (REACH), amended by Regulation 2020/878
POTASSIUM NITRITE	3.00 / 20260528

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Product identifier

Name:	Potassium Nitrite.
Synonyms :	Nitrous acid, potassium salt.
CLP Annex VI, part 3, index nr.	007-011-00-X, Potassium nitrite
EC/EINECS No. :	231-832-4
CAS No.	7758-09-0
Registration nr :	01-2120763964-40-0003.
Nano particles	n.a.

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Intended use :	See 'exposure scenarios'
1.2.2 Uses advised against	no additional information

1.3 Details of the supplier of the safety datasheet

Supplier :	**GENTROCHEMA BV** **Lage Ham 190, NL-5102AE Dongen, The Netherlands** **Tel. : +31.162.249020** **E-mail :info@gentrochema.nl Website : www.gentrochema.nl**
Emergency telephone nr :	during office hours (08:30 - 17:00) : +31.162.249020 After office hours (*only for health professionals*) : +44.870.600.6266

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance

2.1.1. Classification according to Regulation 1272/2008 EC

Ox. solid, 2	H272
Acute tox., 3	H301
Aqua, acute,1	H400

2.2 Label elements

2.2.1. Labelling according to Regulation 1272/2008 EC

Product identifier : Potassium Nitrite

Index Nr : 007-011-00-X, potassium nitrite

Hazard Pictogram(s):



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Signal word : Danger

Hazard Statement(s):

H272	May intensify fire; oxidiser
H301	Toxic if swallowed
H400	Very toxic to aquatic life

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P273	Avoid release to the environment.

2.3. Other hazards

No additional information

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical characterization: Potassium nitrite, min. 97 % KNO_2, with non hazardous additions

Composition/information on ingredients :

EINECS nr : 231-832-4
CAS nr : 7758-09-0
Index No. 007-011-00-X, potassium nitrite

Ox. solid, 2	H272
Acute tox., 3	H301
Aqua, acute,1	H400

4. FIRST AID MEASURES

4.1 Description of first aid measures

- General information : Toxic if swallowed
- After inhalation : Remove to fresh air.
If not breathing give artificial respiration.
If breathing is difficult, give oxygen.
Call a physician.
- After skin contact : Immediately flush skin with copious amounts of water for at least 15 minutes.

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- After eye contact : Immediately flush eyes with copious amounts of water for at least 15 minutes, keeping eyelids open.

- After swallowing : Drink plenty of water, provided person is conscious and rinse mouth with water. Call a physician.

4.2. Most important symptoms and effects, both acute and delayed

Toxic if swallowed. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

Laxans: Sodiumsulfate (1 Tablespoon/ ¼ Liter water)

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Non-suitable extinguishing media : Not known

5.2 Special hazards arising from the substance

Nitrogen oxides (NOx), Potassium oxides

5.3 Advice for fire-fighters

Contact with combustible material may cause fire. Oxidiser
Wear self contained breathing apparatus if necessary.
Avoid release of the extinguishing media to the environment.

5.4 Further information

Product itself does not burn

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid causing dust.

6.2 Environmental precautions

This material and its container must be disposed of as hazardous waste.
Avoid release to the environment. Refer to special instructions/safety data sheets.

6.3 Methods and materials for containment and cleaning up

Pick up spilled product, keep in a closed container and hold for waste.

6.4 Reference to other sections

For safe use : refer to section 7
For personal protection : refer to section 8.

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For disposal : refer to section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid causing dust. Do not breathe dust.
Handle and open container with care.
Wash thoroughly after handling.
When using, do not eat, drink or smoke.
Avoid exposure - obtain special instructions before use.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.
Keep away from combustible materials, heat, sparks and open flame.
Other information: For quality reasons; Store in a cool dry place.

7.3 Specific end uses

No additional information

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits for this substance can be found in 'Exposure 'Scenarios'

8.2 Exposure controls

Do not breathe dust.
Avoid contact with skin, eyes or clothes.
Wash thoroughly after handling.
Only use in a well-ventilated place.
Safety shower and eye bath should be present.

Personal protection :

- Hand protection :	Use chemical resistant gloves. See standard : EN-374-3:2003.
- Eye/face protection :	Use tight fitting goggles. See standard: EN 166:2001.
- Skin/body protection :	Wear appropriate protective clothing.
- Respiratory protection :	Wear appropriate respirator, Filter P3 (white).

Other information :

After handling, take a shower. Working clothes should not be taken home.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 information on basic physical and chemical properties

Appearance:	solid,light white/yellow crystals
Odour:	odourless

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Odour threshold:	Not available
PH-value :	6.65. (1 % solution at 27 °C)
Alkalinity or acidity :	Not available.
Boiling point :	Not available.
Melting point :	441 °C
Flash point:	Not available
Evaporation rate:	Not relevant
Flammability :	Not available.
Vapour pressure :	Not available
Vapour density :	Not available.
Specific gravity/Density :	0.834 (at 0 °C), OECD
Solubility in water :	718,8 g/l - 740 g/l (at 20 °C)
Solubility in other solvents :	Not available.
Partition coefficient n-octanol/water:	Not available.
Auto ignition temperature:	Not available.
Decomposition temperature :	> 530 °C
Viscosity :	Not available.
Granulometry	53 – 150 micron
Explosive properties	> 530 °C
Oxidising properties :	strong oxidiser. May intensify fire

9.2. other information

Due to its hygroscopic properties, this product will cake rapidly (in case an anti-caking agent is not used).

10. STABILITY AND REACTIVITY

10.1 Reactivity

Contact with combustible material may cause fire.
Reacts violently with reducing substances.

10.2 Chemical stability

May explode upon heating > 530 °C.
Stable under circumstances as advised in section 7.

10.3 Possibility of hazardous reactions

Do not mix with reducing substances, acids and organic substances.

10.4 Conditions to avoid

Keep away from combustible materials, heat, sparks and open flames. Keep away from sources of ignition - No smoking.

10.5 Incompatible materials

Do not mix with reducing substances, acids and organic substances.

10.6. Hazardous decomposition products

Poisonous NOx

11. TOXICOLOGICAL INFORMATION

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11.1 Information on toxicological effects

Endpoint Route Dose descriptor or qualitative effect characterisation; test type
Acute toxicity oral adverse effect observed
(LD50): 300mg/kg bw

Acute toxicity dermal no adverse effect observed
(LD50): 5000mg/kg bw

Acute toxicity inhalation no adverse effect observed
(LC50): 85000mg/m³

Irritation / Corrosivity skin no adverse effect observed (not irritating)

Irritation / Corrosivity eye adverse effect observed (irritating)

Irritation / Corrosivity resp. tract no study available

Sensitisation skin no adverse effect observed (not sensitising)

Sensitisation resp. tract no study available

Repeated dose toxicity oral adverse effect observed
(NOAEL): 300mg/kg bw/day (subchronic; rat [common rodent species])
Target system/organs:urinary

Mutagenicity in vitro / in vivo In vitro: no adverse effect observed (negative)
In vivo:

Reproductive toxicity:
effects on fertility
oral no adverse effect observed
(NOAEL): 75mg/kg bw/day (subchronic; rat [common rodent species])

Reproductive toxicity:
developmental toxicity
oral no study available

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Compartment / Hazard conclusion /Remarks/Justification

Freshwater PNEC aqua **(freshwater):**
0.971µg/L

Intermittent releases:
9.71µg/L
Assessment factor: 1000
Extrapolation method: assessment factor
PNEC aqua (freshwater)

Freshwater: Default (PNEC calculator plug-in)

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Freshwater intermittent: Default (PNEC calculator plug-in)

Marine water PNEC aqua (marine water): 97.1ng/L
Intermittent releases:
0.971µg/L
Assessment factor: 10000
Extrapolation method: assessment factor
PNEC aqua (marine water)
Marine water: Default (PNEC calculator plug-in)
Marine water intermittent**:** Default (PNEC calculator plug-in)

Sediments freshwater) PNEC sediment Extrapolation method: equilibrium partitioning method ((freshwater): 21µg/kg PNEC sediment (freshwater)
sediment dw
Default (PNEC calculator plug-in)

Sediments (marine water) PNEC sediment (marine water): 2.1µg/kg sediment
dw
Extrapolation method: equilibrium partitioning method
PNEC sediment (marine water)
Default (PNEC calculator plug-in)

Sewage treatment plant
no hazard identified:

Soil PNEC soil: 3.64µg/kg soil
dw
Extrapolation method: equilibrium partitioning method
PNEC soil
Default (PNEC calculator plug-in)

Air no hazard identified:

Secondary poisoning
no potential for bioaccumulation:

13. DISPOSAL CONSIDERATIONS

Product/packing :

Observe all federal, state and local environmental regulations.
See directives 75/442/EEC and 2006/12/EC.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment. Refer to special instructions/ Safety data sheets.

14. TRANSPORT INFORMATION

Landtransport (RID/ADR) :





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ADR/GGVSEB class:	Potassium nitrite, ADR 5.1
GEVI Nr.:	50
Label :	flame / fish and tree
Packing group:	II
UN nr. :	1488
Tunnel restriction code	E

Sea transport (IMDG) :





IMDG class:	5.1
UN nr. :	1488
Label :	5.1
Packing group :	II
EMS:	F-A, S-Q
Segregation group:	12, NITRITES AND THEIR MIXTURES
Marine Pollutant :	yes

POTASSIUM NITRITE.

Air transport (ICAO-IATA):





ICAO/IATA class:	5.1
UN/ID Number:	1488
Label:	5.1
Packing group:	II POTASSIUM NITRITE
UN nr. :	1488

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National and European legislation

in accordance with regional regulatory requirements.
REACH (substances of very high concern, SVHC): No
CLP Annex VI, Part 3, Index No: 007-011-00-X, Potassium nitrite
Maternity Protection Directive: Observe EC 92/85/EEC for pregnant or breastfeeding mothers
Youth Employment Protection Directive: Observe 94/33/EC
Major Accidents Ordinance (Störfallverordnung): -
Technical Instructions on Air Quality Control (TA Luft): -
Water Hazard Class: WGK 2 obviously hazardous to water
Storage Class VCI: 5.1 B Oxidizing substances

Other regulations, restrictions and prohibition ordinances

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15.2. Chemical safety assessment

A chemical safety assessment has been carried out for this product.

16. OTHER INFORMATION

relevant H& R Phrases

H272	May intensify fire; oxidiser
H301	Toxic if swallowed.
H400	Very toxic to aquatic life.

Consulted literature:	-
Version :	Nr. 3.00 of 28.05.2026. (Replaces all preceding versions.)
Changes per section compared to last version :	General update
Name of composer and manager in charge :	Mr W. van Loon. (wl@gentrochema.nl./tel +31 162 249020)
Printing date :	29-05-2026

Used abbreviations

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA : International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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