

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 30.10.2023

Version number 12 (replaces version 11)

Revision: 30.10.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Product name:** DPD Nitrite

· **Catalog number:** 00512691, 56T002350, 502691, 00502691

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

· **Application of the substance / the preparation:** Reagent for water analysis

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH
Schleefstraße 8-12
44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 (0)231 94510-0
e-mail: sales@lovibond.com

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom

phone : +44 1980 664800
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670
Languages: English

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS09

· **Signal word** Warning

· **Hazard statements**

H400 Very toxic to aquatic life.

· **Precautionary statements**

P273 Avoid release to the environment.

P391 Collect spillage.

· **2.3 Other hazards** No further relevant information available.

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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

Determination of endocrine-disrupting properties





The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of inorganic compounds.

Dangerous components:

CAS: 7632-00-0	sodium nitrite	2.5–5%
EINECS: 231-555-9	 Ox. Sol. 3, H272;  Acute Tox. 3, H301;  Aquatic Acute 1, H400 (M=10);	
Index No: 007-010-00-4	 Eye Irrit. 2, H319	
Reg.nr.: 01-2119471863-27-XXXX		

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After inhalation Supply fresh air; consult doctor in case of symptoms.

After skin contact Instantly wash with water and soap and rinse thoroughly.

After eye contact

Rinse opened eye for several minutes under running water (at least 15 min). If symptoms persist, consult doctor.

After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

Induce vomiting.

Administer medicinal carbon

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

irritating effects possible

after inhalation:

mucosal irritations, cough, shortness of breath

after swallowing of large amounts:

absorption

sickness

vomiting

cyanosis

headache

methaemoglobinaemia

drop in blood pressure

cardiovascular disorders

unconsciousness

Danger

Danger of system failure.

Danger of disturbed cardiac rhythm.

4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents Use fire fighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture

The product is not combustible.

Formation of toxic gases is possible during heating or in case of fire.

Can be released in case of fire:

Hydrogen chloride (HCl)

Nitrogen oxides (NO_x)

Dipotassium oxide

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- **5.3 Advice for firefighters**

- **Protective equipment:**

- Wear self-contained breathing apparatus.

- Wear full protective suit.

- **Additional information**

- Collect contaminated fire fighting water separately. It must not enter drains.

- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

- Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

- **Advice for non-emergency personnel:**

- Wear protective equipment. Keep unprotected persons away.

- Ensure adequate ventilation

- Avoid causing dust.

- **Advice for emergency responders:** Protective equipment: see section 8

- **6.2 Environmental precautions:**

- Do not allow product to reach sewage system or water bodies.

- Inform respective authorities in case product reaches water or sewage system.

- **6.3 Methods and material for containment and cleaning up:**

- Ensure adequate ventilation.

- Collect mechanically.

- Dispose of contaminated material as waste according to item 13.

- **6.4 Reference to other sections**

- See Section 8 for information on personal protection equipment.

- See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

- **Advice on safe handling:** No special precautions necessary if used correctly.

- **Hygiene measures:**

- Take off immediately all contaminated clothing.

- Wash hands during breaks and at the end of the work.

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

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Requirements to be met by storerooms and containers:** Store in cool location.

- **Information about storage in one common storage facility:**

- Do not store together with acids.

- Store away from flammable substances.

- Store away from oxidising agents.

- **Further information about storage conditions:**

- Protect from heat and direct sunlight.

- Protect from the effects of light.

- Store under dry conditions.

- Protect from humidity and keep away from water.

- **Recommended storage temperature:** 20°C +/- 5°C

- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Components with limit values that require monitoring at the workplace:**

- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Engineering measures:**

- Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

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See item 7.

- **Individual protection measures, such as personal protective equipment**
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- **Eye/face protection**
Safety glasses
use against the effects of fumes / dust
Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.
- **Hand protection**
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
- **Penetration time of glove material**
Value for the permeation: Level = 1 (< 10 min)
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Other skin protection (body protection):** Protective work clothing.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P3
- **Environmental exposure controls** Do not allow product to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **Physical state** Solid.
- **Form:** Tablets
- **Colour:** White
- **Odour:** Odourless
- **Odour threshold:** Not applicable.
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** Not determined.
- **Flammability** The product is not combustible.
- **Explosive properties:** Product is not explosive.
- **Lower and upper explosion limit**
- **Lower:** Not applicable.
- **Upper:** Not applicable.
- **Flash point:** Not applicable.
- **Auto-ignition temperature:** Not applicable (solid).
- **Decomposition temperature:** Not determined.
- **pH (12 g/l) at 20°C** 6.1
- **Kinematic viscosity** Not applicable (solid).
- **Solubility**
- **Water:** Soluble
- **Partition coefficient n-octanol/water (log value)** Not applicable (mixture).
- **Vapour pressure:** Not applicable.
- **Density and/or relative density**
- **Density at 20°C:** 1.99 g/cm³
- **Relative density:** Not determined.
- **Relative gas density** Not applicable (solid).
- **Particle characteristics** Not determined.

· 9.2 Other information

- **Information with regard to physical hazard classes**
- **Corrosive to metals** Void
- **Other safety characteristics**
- **Oxidising properties:** CAS 7632-00-0: is classified as oxidising.
Oxidising potential

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Additional information	
Solids content:	100.0 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
Reacts with acids and oxidising agents.
--> forms heat
Reacts with reducing agents
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:**
combustible substances
Ammonia (NH₃)
aluminium
- **10.6 Hazardous decomposition products:** see section 5

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

CAS: 7632-00-0 sodium nitrite		
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Oral	LD50	85 mg/kg (rat) (IUCLID)
	LDLo	71 mg/kg (human) (RTECS)
Inhalative	LC50/4h	5.5 mg/l (rat) (RTECS)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

Information on components:

CAS: 7632-00-0 sodium nitrite		
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Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 405	(rabbit: irritation)

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Information on components:**
CAS 7632-00-0: Did not show carcinogenic effects in animal experiments (IUCLID).
CAS 7632-00-0: No impairment of reproductive performance in animal experiments (IUCLID).
- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Nitrites in general: Possibility of formation of nitrosamines with secondary or tertiary amines.
Nitrosamines have shown themselves to be carcinogenic in animal experiments.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

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Other information

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity**Aquatic toxicity:****CAS: 7632-00-0 sodium nitrite**

EC50	12.5–100 mg/l/48h (Daphnia magna) (OECD 202)
EC50	>100 mg/l/72h (Desmodesmus subspicatus) (OECD 201)
LC50	0.09–0.13 mg/l/96h (rainbow trout) (ECOTOX)

Bacterial toxicity:**CAS: 7632-00-0 sodium nitrite**

EC50	510 mg/l /3h (activated sludge) (OECD 209)
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12.2 Persistence and degradability .**Other information:**

Mixture of inorganic compounds.
Methods for the determination of biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential**CAS: 7632-00-0 sodium nitrite**

log Pow	-3.7 (.) (OECD 107) (Merck)
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12.4 Mobility in soil No further relevant information available.**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.**12.7 Other adverse effects** Avoid transfer into the environment.**Water hazard:**

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.

SECTION 13: Disposal considerations

13.1 Waste treatment methods**Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

European waste catalogue

16 05 07*	discarded inorganic chemicals consisting of or containing hazardous substances
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Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA UN3077

14.2 UN proper shipping name

ADR 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(SODIUM NITRITE)

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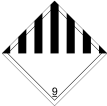

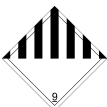

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<ul style="list-style-type: none"> · IMDG · IATA 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM NITRITE), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM NITRITE)
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR 	
 	
<ul style="list-style-type: none"> · Class · Label 	9 (M7) Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> · IMDG, IATA 	
 	
<ul style="list-style-type: none"> · Class · Label 	9 Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Kemler Number: · EMS Number: · Segregation groups · Stowage Category · Stowage Code 	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F (SGG12) Nitrites and their mixtures A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	3 (-)
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

SECTION 15: Regulatory information

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

- **Poisons Act UK**

- **Regulated explosives precursors**

None of the ingredients is listed.

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· Regulated poisons		
None of the ingredients is listed.		
· Reportable explosives precursors		
None of the ingredients is listed.		
· Reportable poisons		
CAS: 7632-00-0	sodium nitrite	Listed
· Regulation (EU) 2019/1148 on the marketing and use of explosives precursors not regulated		
· Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)		
None of the ingredients is listed.		
· Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:		
None of the ingredients is listed.		
· Regulation (EC) No 273/2004 on drug precursors		
None of the ingredients is listed.		
· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors		
None of the ingredients is listed.		
· Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:		
None of the ingredients is listed.		
· REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)		
None of the ingredients is listed.		
· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)		
None of the ingredients is listed.		
· Substances of very high concern (SVHC) according to REACH, Article 57		
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).		
· Substances of very high concern (SVHC) according to UK REACH		
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).		
· Directive 2012/18/EU (SEVESO III):		
· Named dangerous substances - ANNEX I None of the ingredients is listed.		
· Seveso category E1 Hazardous to the Aquatic Environment		
· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t		
· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t		
· Information about limitation of use: Not required.		
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Relevant phrases**

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

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development
STOT: specific target organ toxicity
SE: single exposure
RE: repeated exposure
EC50: half maximal effective concentration
IC50: half maximal inhibitory concentration
NOEL or NOEC: No Observed Effect Level or Concentration
ADR: Accord relatif au transport international 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

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 3: Oxidizing solids – Category 3
Acute Tox. 3: Acute toxicity – Category 3
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Sources

Data arise from safety data sheets, reference works and literature.
ECOTOX Database
IUCLID (International Uniform Chemical Information Database)
RTECS (Registry of Toxic Effects of Chemical Substances)

· * **Data compared to the previous version altered.**

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