

## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

### Nitrogen No.1

Revision date 01-12-2024

Revision Number 1

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

##### 1.1. Product identifier

Product Code(s)	PPPNitro1
Product Name	Nitrogen No.1
REACH registration number EC No (EU Index No)	01-2119495676-19-xxxx 231-781-8
CAS No	7727-21-1
Unique Formula Identifier (UFI)	CWS7-Q3NX-JU1W-5PD5
Contains Potassium persulfate	
Formula	K2S2O8
Molecular weight	270.32

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

Recommended use	Reagent for water analysis
Uses advised against	Others

##### 1.3. Details of the supplier of the safety data sheet

###### Manufacturer

Water-i.d. GmbH  
Daimlerstr. 20  
76344 Eggenstein, Germany  
Tel.: +49 (0) 721 78 20 29 0, Fax: +49 (0) 721 78 20 29 11  
Website: [www.water-id.com](http://www.water-id.com)  
EHS / Compliance: [lab@water-id.com](mailto:lab@water-id.com)

##### 1.4. Emergency telephone number

Emergency Telephone	Poison Control Centre Munich Tel.: +49 (0) 89 19 24 0 Germany 24 hours service Languages: German, English
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#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
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Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Respiratory sensitisation	Category 1 - (H334)
Skin sensitisation	Category 1 - (H317)
Specific target organ toxicity — single exposure	Category 3 - (H335)
Category 3 Respiratory irritation	
Oxidising solids	Category 3 - (H272)

**2.2. Label elements**

Contains Potassium persulfate



**Signal word**  
Danger

**Hazard statements**

- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H319 - Causes serious eye irritation
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335 - May cause respiratory irritation
- H272 - May intensify fire; oxidiser

**Precautionary Statements - EU (§28, 1272/2008)**

- 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
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
- P370 + P378 - In case of fire: Use water spray to extinguish

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Potassium persulfate 7727-21-1	100	No data available	231-781-8	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) STOT SE 3 (H335) Ox. Sol. 3 (H272)			

**Full text of H- and EUH-phrases: see section 16**

Acute Toxicity Estimate

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Potassium persulfate 7727-21-1	802	10000			

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Call a doctor immediately. May cause allergic respiratory reaction. Move victim to fresh air. Give artificial respiration if victim is not breathing.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a doctor immediately.
<b>Skin contact</b>	In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. Take off contaminated clothing.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor immediately.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

<b>Symptoms</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritating. Burning sensation. Difficulty in breathing. Itching. Rashes.
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**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	No information available.

**5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	Containers may explode when heated. These substances will accelerate burning when involved in a fire. Thermal decomposition can lead to release of irritating gases and
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vapours.

**Hazardous combustion products** Oxides of sulphur.

**5.3. Advice for firefighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**SECTION 6: Accidental release measures**

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

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

**For emergency responders** Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Prevent dust cloud.

**Methods for cleaning up** Avoid generation of dust. Pick up and transfer to properly labelled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling** Avoid breathing vapours or mists. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothing and wash it before reuse. Use personal protection equipment. Keep away from open flames, hot surfaces and sources of ignition.

**General hygiene considerations** Avoid breathing dust/fume/gas/mist/vapours/spray. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

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

**Storage Conditions** Do not store near combustible materials.

**7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Potassium persulfate 7727-21-1	-	-	TWA: 0.1 mg/m <sup>3</sup>	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Potassium persulfate 7727-21-1	-	-	TWA: 2 mg/m <sup>3</sup>	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Potassium persulfate 7727-21-1	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	-	TWA: 0.1 mg/m <sup>3</sup>	-	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Potassium persulfate 7727-21-1	-	-	-	STEL: 4 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Potassium persulfate 7727-21-1	TWA: 0.1 mg/m <sup>3</sup>	-	-	-	TWA: 0.1 mg/m <sup>3</sup>

**Biological occupational exposure limits**

**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)**

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/face protection**

Tight sealing safety goggles. Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Short term	Wear protective nitrile rubber gloves	0.20 mm	>30 minutes

**Skin and body protection**

Long sleeved clothing. Wear suitable protective clothing.

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**

Avoid breathing dust/fume/gas/mist/vapours/spray. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

**Environmental exposure controls**

Do not allow into any sewer, on the ground or into any body of water.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Physical state** Solid

<b>Appearance</b>	Powder
<b>Colour</b>	white
<b>Odour</b>	Odourless.
<b>Odour threshold</b>	No data available

**Remarks**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Melting point / freezing point</b>	30°C	
<b>Boiling point / boiling range</b>	No data available	
<b>Flammability (solid, gas)</b>	No data available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	
<b>Autoignition temperature</b>	>600°C	
<b>Decomposition temperature</b>	170°C	
<b>pH</b>	2.5 - 4.5	@ 25 °C
<b>pH (as aqueous solution)</b>	No data available	
<b>Kinematic viscosity</b>	No data available	
<b>Dynamic viscosity</b>	No data available	
<b>Water solubility</b>	Soluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	
<b>Vapour pressure</b>	No data available	
<b>Relative density</b>	No data available	
<b>Bulk density</b>	No data available	
<b>Liquid Density</b>	No data available	
<b>Relative vapour density</b>	No data available	
<b>Particle characteristics</b>		
<b>Particle Size</b>		
<b>Particle Size Distribution</b>		

**9.2. Other information**

**Molecular weight** 270.32

9.2.1. Information with regards to physical hazard classes

170°C

**Oxidising properties** These substances will accelerate burning when involved in a fire

170°C

9.2.2. Other safety characteristics

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity** No information available.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** Can vigorously react with alkalis (lyes) - danger of explosion. Contact with water generates heat.

**10.4. Conditions to avoid**

**Conditions to avoid** To avoid thermal decomposition, do not overheat. Heat, flames and sparks.

**10.5. Incompatible materials**

**Incompatible materials** Strong reducing agents. Combustible material. Strong bases.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** Thermal decomposition can lead to release of irritating and toxic gases and vapours.

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Information on likely routes of exposure**

**Product Information**

- Inhalation** Specific test data for the substance or mixture is not available.
- Eye contact** Specific test data for the substance or mixture is not available.
- Skin contact** Specific test data for the substance or mixture is not available.
- Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Numerical measures of toxicity**

No information available

**Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

- ATEmix (oral)** 802.00 mg/kg
- ATEmix (dermal)** 10,000.00 mg/kg

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium persulfate	= 802 mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42.9 mg/L ( Rat ) 1 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- Skin corrosion/irritation** No information available.
- Serious eye damage/eye irritation** Causes serious eye irritation. Classification based on data available for ingredients.
- Respiratory or skin sensitisation** May cause sensitisation by inhalation and skin contact.

Method	Species	Exposure route	Results
OECD 406	Mouse	Inhalation Dermal	Sensitising

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

Method	Species	Results
OECD 474	in vivo	Not mutagenic

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** No information available.

**Aspiration hazard** Based on available data, the classification criteria are not met. No information available.

**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties**

**11.2.2. Other information**

**Other adverse effects** None known.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	>=76.3 >=76.3 mg/L	96 hours	
	Daphnia magna	EC50	120 120 mg/L	hours 48	
	Algae	ErC50	320 mg/L 320	hours	
	Bacteria toxicity	EC50	36 mg/L 36	hours 18	

**12.2. Persistence and degradability**

**Persistence and degradability** None known.

**12.3. Bioaccumulative potential**

**Bioaccumulation** No information available.

**12.4. Mobility in soil**

**Mobility in soil** Not expected to adsorb on soil.



**12.5. Results of PBT and vPvB assessment**

**PBT and vPvB assessment** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

Chemical name	PBT and vPvB assessment
Potassium persulfate	The substance is not PBT / vPvB PBT assessment does not apply

**12.6. None known**

**Endocrine disrupting properties**

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**Other information** Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information**

**IATA**

14.1 UN number or ID number UN1492  
 14.2 UN proper shipping name Potassium persulphate  
 14.3 Transport hazard class(es) 5.1  
 14.4 Packing group III  
 Description UN1492, Potassium persulphate, 5.1, III  
 14.5 Environmental hazards Not applicable  
 14.6 Special precautions for user  
 Special Provisions A803  
 ERG Code 5L

**IMDG**

14.1 UN number or ID number UN1492  
 14.2 UN proper shipping name Potassium persulphate  
 14.3 Transport hazard class(es) 5.1  
 14.4 Packing group III  
 Description UN1492, Potassium persulphate, 5.1, III  
 14.5 Marine pollutant NP  
 14.6 Special precautions for user  
 Special Provisions None  
 EmS-No F-A, S-Q  
 14.7 Maritime transport in bulk according to IMO instruments

**RID**

14.1 UN number or ID number UN1492  
 14.2 UN proper shipping name Potassium persulphate  
 14.3 Transport hazard class(es) 5.1  
 14.4 Packing group III  
 Description UN1492, Potassium persulphate, 5.1, III

<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special precautions for user</b>	
<b>Special Provisions</b>	None
<b>Classification code</b>	O2
<b>ADR</b>	
<b>14.1 UN number or ID number</b>	UN1492
<b>14.2 UN proper shipping name</b>	Potassium persulphate
<b>14.3 Transport hazard class(es)</b>	5.1
<b>14.4 Packing group</b>	III
<b>Description</b>	UN1492, Potassium persulphate, 5.1, III, (E)
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special precautions for user</b>	
<b>Special Provisions</b>	None
<b>Classification code</b>	O2
<b>Tunnel restriction code</b>	(E)

**SECTION 15: Regulatory information**

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

Chemical name	French RG number	Title
Potassium persulfate 7727-21-1	RG 65, RG 66	-

**Water hazard class (WGK)**      slightly hazardous to water (WGK 1)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)**

P8 - OXIDISING LIQUIDS AND SOLIDS

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report** A Chemical Safety Assessment is not required for this substance

**SECTION 16: Other information**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Full text of H-Statements referred to under section 3**

H272 - May intensify fire; oxidiser  
 H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 - May cause respiratory irritation

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: Exposure controls/personal protection**

TWA                      TWA (time-weighted average)                      STEL                      STEL (Short Term Exposure Limit)  
 Ceiling                      Maximum limit value                      \*                      Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

Revision date 01-12-2024

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**