WATER-I.D.®
WATER TESTING EQUIPMENT

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 01-08-2025 **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 01-2119495676-19-xxxx
EC No (EU Index No) 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
EHS / Compliance: lab@water-id.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670
English, Albanian, Bosnian, Bulgarian, Croatian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Spanish, Swedish, Turkish and Ukrainian.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
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 >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Call a doctor immediately. May cause allergic respiratory reaction. Move victim to fresh air. Give artificial respiration if victim is not breathing.

Eye contact 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.

Skin contact 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.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor immediately.

Self-protection of the first aider 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

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritating. Burning sensation. Difficulty in breathing. Itching. Rashes.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical 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 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/m³	-	-
Chemical name	**Cyprus**	**Czech Republic**	**Denmark**	**Estonia**	**Finland**
Potassium persulfate 7727-21-1	-	-	TWA: 2 mg/m³	-	-
Chemical name	**Ireland**	**Italy MDLPS**	**Italy AIDII**	**Latvia**	**Lithuania**
Potassium persulfate 7727-21-1	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³	-	TWA: 0.1 mg/m³	-	-
Chemical name	**Luxembourg**	**Malta**	**Netherlands**	**Norway**	**Poland**
Potassium persulfate 7727-21-1	-	-	-	STEL: 4 mg/m³	TWA: 0.1 mg/m³
Chemical name	**Portugal**	**Romania**	**Slovakia**	**Slovenia**	**Spain**
Potassium persulfate 7727-21-1	TWA: 0.1 mg/m³	-	-	-	TWA: 0.1 mg/m³

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
Appearance Powder

Colour	white
Odour	Odourless.
Odour threshold	No data available

Remarks

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

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
14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions	None
Classification code	O2

ADR

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, (E)
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	O2
Tunnel restriction code	(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 (EU) 2024/590

Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	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 any hazard and/or precautionary statements referred to under Sections 2-15
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 01-08-2025

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Disclaimer
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End of Safety Data Sheet