

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

NYOS® NITRATE REEFER

Date of issue: 11.05.2021

Version: 1.03

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## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier: NYOS® NITRATE REEFER

Aquarium test kit for analytical use

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0

The exposure scenario is integrated into sections 1-16.

#### Uses advised against:

None known

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

Nyos Aquatics GmbH  
Daimlerstraße 27  
70825 Korntal-Münchingen / GERMANY  
Phone +49 (0) 711-50875454  
Fax +49 (0) 711-50875494  
Email: [info@nyos.info](mailto:info@nyos.info)

#### Address enquiries to

**Technical information:** [info@nyos.info](mailto:info@nyos.info)

**Safety Data Sheet:** [info@nyos.info](mailto:info@nyos.info)

### 1.4 EMERGENCY TELEPHONE NUMBER:

DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.

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## 2. Hazards identification

### 2.0 Classification of the complete product

#### Directive 1999/45/EC

Symbols -

R -

#### CLP Directive 1272/2008/EC

GHS pictograms -

#### Hazard identification

H411

#### Hazard classes/categories

Hazardous to the aquatic environment - chronic cat. 2

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## 2.1 Classification of the substance or mixture

### 10 ml NO3-1

Directive 1999/45/EC

Symbols

-  
do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms  
Signal word

do not need labelling as hazardous  
-

No hazard class

### 2 g NO3-2

Directive 1999/45/EC

Symbols

-  
do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms  
Signal word

do not need labelling as hazardous  
-

### Hazard identification

H411

### Hazard classes/categories

Hazardous to the aquatic environment - chronic cat. 2

## 2.2 Label elements

### 10 ml NO3-1

Directive 1999/45/EC

Symbols:

-  
-

CLP Directive 1272/2008/EC

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

### 2 g NO3-2

Directive 1999/45/EC

Symbols:

-  
-

CLP Directive 1272/2008/EC

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

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## 2.3 Other hazards

### Possible Hazards from physicochemical Properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

### Information pertaining to particular Risks to Human and possible Symptoms

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### Information pertaining to particular Risks to the Environment

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### Other Hazards

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## 3. Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 10 ml NO3 -1

Chemical:	<i>m -phenylenediamonium dichloride</i>	CAS No.:	541-69-5
Concentration:	< 1,00 %		
Formula:	C 6 H 10 Cl 2 N 2		
Pseudonym:	1,3-benzenediamine, dihydrochloride		
EC No.:	208-790-0	Indice No.:	612-148-00-9
RTECS:	SS9800000	MFCD:	00012975
TSCA Inventory:	listed		
KE No.:	KE-05-1004, >25% Toxic 97-1-334		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

Chemical:	<i>citric acid</i>	CAS No.:	77-92-9
Concentration:	1 - 10 %		
Formula:	C 6 H 8 O 7		
Pseudonym:	2-hydroxy-1,2,3-propanetricarboxylic acid		
REACH Reg. No.:	01-2119457026-42-xxxx		
EC No.:	201-069-1		
RTECS:	GE7350000/GE7810000		
TSCA Inventory:	listed		
KE No.:	KE-20831		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

#### 2 g NO3-2

Chemical:	<i>zinc powder (stabilized)</i>	CAS No.:	7440-66-6
Concentration:	2,5 - 25 %		
Formula:	Zn		
REACH Reg. No.:	01-2119467174-37-xxxx		
EC No.:	231-175-3	Indice No.:	030-002-01-9
RTECS:	ZG8600000		
TSCA Inventory:	Inventory: listed		
KE No.:	KE-35518		
acc. 1999/45/EC:	R 51/53	acc. CLP (GHS):	H411

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## 4. First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

**General information:**

No special measures required.

**Following inhalation:**

Ensure supply of fresh air. In the event of symptoms seek for medical treatment.

**Following skin contact:**

When in contact with the skin, clean with soap and water.

**Following eye contact:**

In case of contact with eyes, rinse thoroughly with water. In the event of symptoms seek for medical treatment.

**Following ingestion:**

Rinse out mouth. If symptoms persist consult doctor.

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

None known.

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

Treat symptomatically.

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## 5. Firefighting measures

### 5.1 Extinguishing media:

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

### 5.2 Special hazards arising from the substance or mixture

none

### 5.3 Advice for fire-fighters

No, for listed product. Product package burns like paper or plastic.

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## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Not necessary.

### 6.2 Environmental precautions:

none

### 6.3 Methods and material for containment and cleaning up

Clean working area with water. Flush used water into drains.

### 6.4 Reference to other sections

none

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## 7. Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

### 7.2 Conditions for safe storage, including any incompatibilities

The original product package of NYOS® allows a safe storage.  
Storage class (German chemical industry): see SECTION 12.1

#### **Requirements for Stock Rooms and Containers**

Keep original product packages tightly closed during handling and storage.

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## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### 10 ml NO3-1

Chemical: *m -phenylenediammonium dichloride*  
TRGS 900 (DE): - (0.1E alt ) mg/m<sup>3</sup>  
E /e respirable

CAS No.: 541-69-5

Short-term exposure factor: 2 (II)

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

EU carcinogen: mut. 3

TRGS 905 (DE): K3B, M3

TRGS 907 (DE): Sh

Korea Exist.Chem.Inventory: KE-05-1004, >25% Toxic 97-1-334

TSCA Inventory: listed

Chemical: *citric acid*

CAS No.: 77-92-9

Korea Exist.Chem.Inventory: KE-20831

TSCA Inventory: listed

#### 2 g NO 3-2

Chemical: *zinc powder (stabilized)*

CAS No.: 7440-66-6

DNEL: 1 inh mg/m<sup>3</sup>

D NEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 0.1A / 2E mg/m<sup>3</sup>

E /e respirable

Korea Exist.Chem.Inventory: KE-35518

TSCA Inventory: listed

### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

#### **Respiratory Protection:**

Not necessary.

#### **Eye protection:**

Not necessary.

#### **Hand protection:**

Not necessary.

#### **Skin protection:**

Not necessary.

#### **Personal Hygiene:**

Information not necessary.

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## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 10 ml NO 3-1

Appearance : liquid

pH: 2-3

Color : rose

Odor : odorless

#### 2 g NO 3-2

Appearance : powder (solid)

pH: 6,5-7,5

Color : slightly grey

Odor : odorless

### 9.2 Other information:

Relevant Properties of Substance Group

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

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## 10. Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Not necessary. When indicated in packing insert.

### 10.5 Incompatible materials:

Not necessary.

### 10.6 Hazardous decomposition products:

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

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## 11. Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 10 ml NO3-1

Chemical:	<i>m -phenylenediammonium dichloride</i>	CAS No.: 541-69-5
LD50 orl rat :	280 mg/kg	
Chemical:	<i>citric acid</i>	CAS No.: 77-92-9
LD50 orl rat :	>3000 mg/kg	
LC50 ihl rat :	5800 mg/m <sup>3</sup>	
LD50 drm rat :	>2000 mg/kg	
LD50 orl mus :	5400 mg/kg	
LD50 scu rat :	5500 mg/kg	

#### 2 g NO3 -2

Chemical:	<i>zinc powder (stabilized)</i>	CAS No.: 7440-66-6
LD50 orl rat :	>2000 mg/kg	
LC_Low inh hmn :	124 50min mg/m <sup>3</sup>	
LC50 ihl rat :	>5.4 4h mg/m <sup>3</sup>	

## 12. Ecological information

### 12.1 Toxicity:

Following information is valid for pure substances.

#### 10 ml NO3 -1

Chemical:	<i>m -phenylenediammonium dichloride</i>	CAS No.: 541-69-5
WGK (DE):	3	WGK No.: 1312
Storage class (VCI):	6.1 D	

Chemical:	<i>citric acid</i>	CAS No.: 77-92-9
PNEC (sweet water) :	440 mg/L	
P NEC = Predicted No Effect Concentration		
LC50 leuciscus idus/96h :	440-760 mg/L	
EC50 daphnia/48h :	1535 24h mg/L	
IC50 scenedesmus quadricauda/72h : 7d:	425-640 mg/L	
EC10 pseudomonas putida/16h : ECO:	>10 g/L	
WGK (DE):	1	WGK No.: 0057
Dispersion coefficient (o-w):	-1.72	
Storage class (VCI):	12-13	

#### 2 g NO3-2

Chemical:	<i>zinc powder (stabilized)</i>	CAS No.: 7440-66-6
LC50 fish/96h :	2.01 mg/L	
EC50 daphnia/48h :	0.131 mg/L	
EC50 pseudokirchneriella subcapitata/72h :	IC50: 0.713 mg/L	
WGK (DE):	2	WGK No.: 7325
Storage class (VCI):	13	

### 12.2 Persistence and degradability

no data available



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## 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Results of PBT and vPvB assessment

no data available

## 12.6 Other adverse effects:

no data available

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## 13. Disposal considerations

not necessary

### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

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## 14. Transport information

No dangerous goods according the transport regulations.

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## 15. Regulatory information

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

### 15.2 Chemical Safety Assessment:

not necessary for these small amounts

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## 16. Other information

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## 16.1 List of R and H phrases

### 16.1.1. List of relevant R phrases

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 16.1.2 List of relevant H phrases

H411 Toxic to aquatic life with long lasting effects.

## 16.2 Training Advice

Regular safety training.

## 16.3 Recommended Restriction on Use

An individual package of this product or test kit has a moderate hazardous potential.

## 16.4 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4 th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2014

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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