

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

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

### 1.1 Product identifier: NYOS® PHOSI-EX

**IUPAC:** Iron hydroxide oxide

**EINECS/ELINCS:** 234-746-4

**CAS No.:** 20344-49-4

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

**Relevant identified uses:** Granular iron hydroxide for effective removal of water contaminants.

**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

**Safety Data Sheet:** 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.

---

## 2. Hazards identification

### 2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 [CLP]: No classification.

Classification according to 67/548/EEC or 1999/45/EC: No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with EC-directives.

**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

**Hazard pictograms:** none

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

**Hazard statements:** none

## 2.3 Other hazards

**Environmental hazards:** Does not contain any PBT or vPvB substances.

**Other hazards:** none

---

## 3. Composition/information on ingredients

### 3.1 Substances

The product is a substance

100% Iron hydroxide oxide

**EINECS/ELINCS:** 234-746-4

**CAS No.:** 20344-49-4

**IUPAC:** Iron hydroxide oxide

**Comment on component parts:** No dangerous components.

---

## 4. First aid measures

### 4.1 Description of first aid measures

**General information:** Change powdered clothing.

**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:** Seek medical advice immediately.

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

None known.

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

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

Treat symptomatically.

---

## 5. Firefighting measures

### 5.1 Extinguishing media:

**Suitable extinguishing media:** Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

**Unsuitable extinguishing media:** none

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

none

### 5.3 Advice for fire-fighters

Use self-contained breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

## 6. Accidental release measures

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

No special measures necessary.

### 6.2 Environmental precautions:

Do not discharge into the drains/surface waters/groundwater.

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

Take up mechanically.

Avoid raising dust.

Dispose of adsorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

## 7. Handling and storage

### 7.1 Precautions for safe handling

Avoid the formation of deposition of dust.  
Provide vacuuming if dust raised.  
The product is not combustible.  
Wash hands before breaks and after work.  
Use barrier skin cream.  
Do not eat, drink smoke or take drugs at work.

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

Do not store together with food and animal food/diet.  
Store in a dry place.

### 7.3 Specific end uses:

See product use, Section 1.2

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limits:

Not applicable

### 8.2 Exposure controls

**Additional advice on system design:** not applicable

**Eye protection:** Safety glasses

**Hand protection:** butyl rubber, >120min (EN 374). The details concerned are recommendations. Please contact the glove supplier for further information.

**Skin protection:** light protective clothing

**Other:** Avoid contact with eyes and skin. Do not inhale dust

**Respiratory protection:** Not required under normal conditions.

**Thermal hazards:** no

**Delimitation and monitoring of the environmental exposition:** See SECTION 6+7

---

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form: granules

Color: red-brown

Odor: odourless

Odour threshold: not applicable

pH-Value: not applicable

# Safety Data Sheet

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

NYOS® PHOSI-EX

**Date of issue: 11.05.2021**

**Version: 1.03**

---

pH-Value [1%]: 7-8  
Boiling point [°C]: not applicable  
Flash point [°C]: not applicable  
Flammability [°C]: not applicable  
Lower explosion limit: not applicable  
Upper explosion limit: not applicable  
Oxidizing properties: no  
Vapour pressure/gas pressure [kPa]: not applicable  
Density [g/ml]: not determined  
Bulk density [kg/m<sup>3</sup>]: 600-700  
Solubility in water: virtually insoluble  
Partition coefficient [n-octanol/water]: not determined  
Viscosity: not applicable  
Relative vapor density determined in air: not applicable  
Evaporation speed: not applicable  
Melting point [°C]: not determined  
Autoignition temperature [°C]: not applicable  
Decomposition temperature [°C]: not applicable

## 9.2 Other information:

none

---

## 10. Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

See SECTION 7.2

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

## 10.5 Incompatible materials:

Not applicable

## 10.6 Hazardous decomposition products:

No hazardous decomposition products known.

---

## 11. Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity:** 100% Iron hydroxide oxide, CAS: 20344-49-4, LD50, oral, Rat: >10000mg/kg (IUCLID)

**Serious eye damage/irritation:** Non-irritant.

**Skin corrosion/irritation:** Non-irritant.

**Specific target organ toxicity – single exposure:** none

**Specific target organ toxicity – repeated exposure:** none

**Mutagenicity:** There is no evidence of any mutagenic effects.

**Reproduction toxicity:** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity:** There is no evidence of any carcinogenic effects.

**General remarks:** none

---

## 12. Ecological information

### 12.1 Toxicity:

100% Iron hydroxide oxide, CAS: 20344-49-4  
LC0 (48h), *Leuciscus idus*: > 1000mg/l (IUCLID).  
EC0, *Pseudomonas fluorescens*: >1000mg/l (IUCLID).

### 12.2 Persistence and degradability

**Behaviour in environment compartments:** not applicable

**Behaviour in sewage plant:** Iron hydroxide oxide to adsorb nutrient, specially phosphate.

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

## 12.3 Bioaccumulative potential

Product has having no bioaccumulation potential.

## 12.4 Mobility in soil

Not applicable

## 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

## 12.6 Other adverse effects:

None known.

---

## 13. Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### **Product:**

For recycling, consult manufacturer.

Waste no. (recommended): 060316

#### **Contaminated packaging:**

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended): 150102

---

## 14. Transport information

### 14.1 UN No.

See SECTION 14.2 in accordance with UN shipping name

### 14.2 UN Proper shipping name

# Safety Data Sheet

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

NYOS® PHOSI-EX

Date of issue: 11.05.2021

Version: 1.03

---

**Transport by land according to ADR/RID:** NO DANGEROUS GOODS

**Inland navigation (ADN):** No DANGEROUS GOODS

**Marine transport in accordance with IMDG:** NOT CLASSIFIED AS "DANGEROUS GOODS"

**Air transport in accordance with IATA:** NOT CLASSIFIED AS "DANGEROUS GOODS"

## 14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

## 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

## 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

## 14.6 Special precautions for user+

Relevant information under SECTION 6 to 8

## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

---

## 15. Regulatory information

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

**EEC-REGULATIONS:** 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

**TRANSPORT-REGULATIONS:** DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

**-Observe employment restrictions for people:** no

- **VOC (1999/13/CE):** 0%

# Safety Data Sheet

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

NYOS® PHOSI-EX

**Date of issue: 11.05.2021**

**Version: 1.03**

---

## 15.2 Chemical Safety Assessment:

For this substance a chemical safety assessment is not required.

---

## 16. Other information

### 16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises Dangereuses par voie de navigation intérieure  
CAS = Chemical Abstract Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective Concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition Concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal Concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very persistent and very Bioaccumulative

### 16.2 Other information

**Classification procedure:** None

**Modified position:** None

# Safety Data Sheet

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

NYOS® PHOSI-EX

**Date of issue: 11.05.2021**

**Version: 1.03**

---

---