

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

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

**1.1 Product identifier**

Name of the substance	<b>Iron hydroxide</b>
Trade name	<b>Phos-Out 4</b>
Registration number (REACH)	n.a.
EINECS/ELINCS number	243-746-4
CAS number	20344-49-4
<b>Other designations</b>	
Product number	PO4

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

Relevant identified uses/Uses by consumers	Filter granules for marine and freshwater aquariums
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**1.3 Details of the supplier of the safety data sheet**

ARKA Biotechnologie GmbH Mühlach 53-55 90552 Röthenbach Germany  Phone: +49 (0)911 5698610 00 Fax: +49 (0)911 5698610 29 E-mail (knowledgeable person)	info@arka-biotech.de
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**1.4 Emergency number**

Emergency information service	ARKA Biotechnology GmbH Available by phone Mon.-Fri. from 8:00-17:00 Phone: +49 (0)911 5698610 00
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### SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 (CLP)**  
 The substance is not classified as hazardous according to Regulation (EC) No 1272/2008.

**2.2 Labeling elements**

**Labeling according to Regulation (EC) No. 1272/2008 (CLP)**  
 The substance is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

**2.3 Other dangers**

None known.

### SECTION 3: Composition/information on ingredients

**3.1 Fabrics**

Substance name	Iron hydroxide
Index no.	not available
Registration number (REACH)	not available
EINECS number	243-746-4
CAS number	20344-49-4
Purity	≤100%
Sum formula	FeO
Molar mass	not available

Contains no hazardous components.  
 SVHC list (Candidate List of Substances of Very High Concern for authorization): Contains none or less than 0.1% of the listed substances. Substance(s) exempted from registration (Title II) according to REACH Regulation EC 1907/2006 (according to Article 2(7)(d), or according to Article 2(7)(b), as compliance with Annex V point 7 or point 8)

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

No special measures required.

##### After inhalation

Provide fresh air. Consult a doctor in case of complaints.

##### After contact with the skin

Wash/shower skin with soap and water. If skin irritation or allergic reactions occur, consult a doctor.

##### After contact with the eyes

Keep eyelids open and rinse thoroughly with clean, running water for at least 15 minutes. Remove any contact lenses if possible. Continue rinsing. If eye irritation occurs, consult a doctor.

##### After ingestion by swallowing

Consult a doctor immediately and show this safety data sheet. Rinse mouth and drink plenty of water.

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

No information available.

#### 4.3 Information on immediate medical assistance or special treatment

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing agent

##### Suitable extinguishing agents

Coordinate extinguishing measures with the surroundings.

##### Unsuitable extinguishing agents

None.

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

Non-flammable.

##### Hazardous combustion products

Can be released in the event of fire: Carbon dioxide (CO<sub>2</sub>), carbon monoxide

#### 5.3 Instructions for firefighting

Fight the fire with the usual precautions from an appropriate distance. Stay in the danger zone only with self-contained breathing apparatus.

### SECTION 6: Accidental release measures

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

##### Staff not trained for emergencies

No special ones required.

##### Emergency services

Respiratory protective equipment must be worn when exposed to vapors, dusts, aerosols and gases.

Personal protective equipment: see section 8.

#### 6.2 Environmental protection measures

Prevent the product from entering the sewage system or surface and ground water.

#### 6.3 Methods and material for retention and cleaning

##### Instructions on how to prevent spilled materials from spreading

Pick up mechanically.

#### 6.4 Reference to other sections

Safe handling: see section 7

### SECTION 7: Handling and storage

#### 7.1 Protective measures for safe handling

##### Recommendations

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

**Instructions for safe handling:**

Do not inhale dust. Avoid dust formation. Do not eat, drink or smoke during use. Wash hands after each use.

**Information on fire and explosion protection and the fire class:**

Non-flammable.

Fire class: LGK13 (non-combustible solids).

**7.2 Conditions for safe storage, taking into account incompatibilities**

Store in a dry place.

Keep container tightly closed.

Storage class according to TRGS 510: not available

Do not store together with food and animal feed.

**Incompatible substances or mixtures**

Observe storage instructions.

**7.3 Specific end uses**

You Section 1.2

### SECTION 8: Exposure controls/personal protective equipment

**8.1 Parameters to be monitored**

**Additional information on limit values**

Contains no substances with occupational exposure limits. Ensure adequate ventilation and extraction in the processing rooms.

**8.2 Exposure controls and monitoring**

**8.2.1 Protective and hygiene measures**

Wash hands before breaks and at the end of work. Do not eat, drink, smoke or sniff while working. Keep away from food, drink and animal feed.

**8.2.2 Individual protective measures (personal protective equipment)**

**Eye/face protection**

Safety goggles. (EN 166:2001)

**Skin protection**

Wear light protective clothing. Remove contaminated clothing and wash before reuse.

**Hand protection**

0.4mm butyl rubber > 120min (EN 374) The protective glove should always be tested for its workplace-specific suitability, e.g. mechanical resistance, product compatibility, antistatic properties. Follow the glove manufacturer's instructions and information on the use, storage, care and replacement of the gloves. The protective gloves should be replaced immediately if they are damaged or show the first signs of wear.

**Other protective measures**

Please observe the information provided by the hemp shoe supplier with regard to permeability and breakthrough time. Also take into account the specific local conditions under which the product is used, such as risk of cuts, abrasion and contact time.

**Respiratory protection**

Required if dust is present. Suitable particle filter (EN 143): P1 (filters at least 94 % of air particles, color code: white).

**8.2.3 Limiting and monitoring environmental exposure**

Comply with the applicable environmental directives that limit discharges to air, water and soil

### SECTION 9: Physical and chemical properties

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

Physical state	solid (granules)
color	reddish brown
odor	odorless

**Other physical and chemical parameters**

pH value (1%)	7 - 8
Melting point/freezing point	not available
Spontaneous combustion	not spontaneously flammable
Flash point	not available

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

Evaporation ratenot	available
Flammability (solid, gaseous)	not flammable
Explosion limits of dust/air mixtures	not determined
Vapor pressurennot	determined
Density	not determined
Bulk density	550-700 kg/m <sup>3</sup> (90%TS)
Solubility(ies)	
Water solubility	Practically insoluble
Partition coefficient	
n-octanol/water (log KOW) Auto-ignition	No information available
temperature Viscosity	not determined
Explosive properties	not relevant (solid) none
Oxidizing properties	none

### 9.2 Other information

No data is available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

No information available.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known if handled as directed.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

No information available.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Classification according to GHS (1272/2008/EC,

#### CLP) Acute toxicity

Iron hydroxide, CAS: 20344-49-4 - LD50, oral, rat: > 10000 mg/kg (IUCLID)

#### Irritant and corrosive effect

Not irritating.

#### Sensitizing effects

Not sensitizing.

#### Carcinogenic, mutagenic and reprotoxic effects

No information available.

#### Specific target organ toxicity at single exposure

Based on available data, the classification criteria are not met.

#### Specific target organ toxicity with repeated exposure.

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Other information

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

Further hazardous properties cannot be excluded.

### SECTION 12: Environmental information

- 12.1 Toxicity**  
**(Acute) aquatic toxicity**  
 LC0, (48h), Leuciscus idus: > 1000 mg/l (IUCLID).  
 EC0, Pseudomonas fluorescens: > 1000 mg/l (IUCLID).
- 12.2 Persistence and degradability**  
 Not applicable.
- 12.3 Bioaccumulative potential**  
 No data is available.
- 12.4 Mobility in soil**  
 No data is available.
- 12.5 Results of the PBT and vPvB assessment**  
 No data is available.
- 12.6 Other harmful effects**  
 No data is available.

### SECTION 13: Disposal instructions

- 13.1 Waste treatment processes**  
 Product residues must be disposed of in accordance with the Waste Directive 2008/98/EC and national and regional regulations .  
**Information relevant for waste treatment**  
 Store only in the original container.  
**Information relevant for disposal via wastewater**  
 Do not allow to enter drains.  
**Waste treatment of containers/packaging**  
 Completely emptied packaging can be recycled.  
 Contaminated packaging must be treated in the same way as the substance.  
**Notes**  
 Please observe the relevant national or regional regulations. Waste must be separated in such a way that it can be treated separately by the municipal or national waste disposal facilities.

### SECTION 14: Transport information

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|--|--|
| <b>14.1 UN number</b>  | No dangerous goods as defined by national and international transport regulations (not subject to transport regulations) |
| <b>14.2 UN proper shipping name</b>  | not relevant   |
| <b>14.3 Transport hazard classes</b>   |  |
| Class  | not relevant   |
| <b>14.4 Packaging group</b>  | not relevant   |
| <b>14.5 Environmental hazards</b>  | none (not hazardous to the environment according to dangerous goods regulations)   |
| <b>14.6 Special precautions for the user</b>                                   | No additional information is available.  |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | No information available.  |

### SECTION 15: Legislation

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

## Phos-Out 4 / phosphate adsorber

Version number: GHS 1.0

Date of creation: 07.08.2018

The substance is not classified as hazardous according to the regulation (EC) No. 1272/2008 [CLP].

### National regulations (Germany)

- **Ordinance on Installations for the Handling of Substances Hazardous to Water**

(AwSV) Water hazard class (WGK): (not hazardous to water)

- **Storage**

Storage class (LGK): 13 (non-combustible solids)

### 15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this substance.

## SECTION 16: Other information

### Abbreviations and acronyms

Abbr.	Descriptions of the abbreviations used
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Occupational exposure limit
CAS	Chemical Abstracts Service (database of chemical compounds and their unique key, the CAS Registry Number)
CLP	Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction (carcinogenic, mutagenic or toxic for reproduction)
DFG	German Research Foundation List of MAK and BAT values, Senate Commission for the Examination of Health Hazardous Substances, Wiley-VCH, Weinheim
DMEL	Derived minimal effect level (derived exposure level with minimal impairment)
DNEL	Derived No-Effect Level (derived exposure level without impairment)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
Index no.	The index number is the identification code given in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
KZW	Short-term value
LGK	Storage class according to TRGS 510, Germany
MARPOL	International Convention for the Prevention of Pollution from Ships (abbreviation of "Marine Pollu- tant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration (estimated no-effect concentration)
ppm	Parts per million (parts per million)
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals (Registration, Evaluation, Authorization and Restriction of Chemicals)
SMW	Shift average
TRGS	Technical Rules for Hazardous Substances (Germany)
TRGS 900	Occupational exposure limits (TRGS 900)
VbF	Ordinance on flammable liquids (Austria)
vPvB	Very Persistent and very Bioaccumulative (very persistent and very bioaccumulative)

## Phos-Out 4 / phosphate adsorber

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### Important literature and data sources

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU-GHS)

### Disclaimer

This information is based on our current state of knowledge. This SDS has been compiled exclusively for this product and is intended solely for this product.