

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

1.1. Product identifier

Name of product pH-Minus flüssig / pH-Minus liquide
414906

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

Recommended intended purpose(s)

pH regulator for swimming pool water

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor BAYROL Deutschland GmbH
Robert-Koch-Str. 4, D-82152 Planegg
Phone +49 (0) 89 85701-0

Advice

E-mail (competent person):
ASchwarzenboeck@bayrol.de

1.4. Emergency telephone number

Emergency advice Giftnotruf München (oder jedes andere Giftinformationszentrum)
Phone +49 (0) 89 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

C; R35

R-phrases

35 Causes severe burns.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Met. Corr. 1	H290
Skin Corr. 1A	H314

Hazard Statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

2.2. Label elements

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



GHS05

Signal word

Danger

Hazard Statements

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.

Precautionary Statements

P102 Keep out of reach of children.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients for labeling

sulphuric-acid

2.3. Other hazards
Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/ information on ingredients
3.1. Substances

not applicable

3.2. Mixtures
Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
7664-93-9	231-639-5	sulphuric acid ... %	< 50	C R35

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7664-93-9	231-639-5	sulphuric acid ... %	< 50	Skin Corr. 1A, H314

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

Remove contaminated soaked clothing immediately and dispose it safely.
 Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.
 Adhere to personal protective measures when giving first aid.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.
 Refer for medical treatment.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.
Seek medical treatment immediately.

In case of eye contact

Eye rinsing with water carefully while protecting unhurt eye.
Call for a doctor immediately.

In case of ingestion

Do not give neutralising liquids.
Do not induce vomiting.
Call for a doctor immediately.
Rinse out mouth and give plenty of water to drink.

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

No information available.

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

Treatment (Advice to doctor)

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

Foam

Dry powder

Carbon dioxide

Water spray jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Sulfur oxide

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Wear full protective clothing.

Additional information

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No information available.

For non-emergency personnel

Use personal protective clothing.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dilute with plenty of water.
Neutralize with sodium carbonate or slaked lime.
Flush away residues with water.
Do not take up with sawdust or other combustible materials.

6.4. Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When diluting, always stir product into water.
Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin

Hygiene measures

Do not eat or drink when working.
Keep away from food and drink.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

The product is not combustible.
No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Do not store together with food.

Further information on storage conditions

Keep container tightly closed.

Information on storage stability

Storage time: 5 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

See section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
7664-93-9	Sulphuric acid (mist)	8 hours	0,05		

8.2. Exposure controls
Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.

Hand protection

chemical-resistant gloves

Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)

Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness

Butyl rubber (butyl) - 0.7mm layer thickness

In view of the many different types, the manufacturers' directions for use must be followed

Eye protection

Safety goggles

Other protection measures

protective clothing

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Appearance

liquid

Colour

colourless

Odour

odourless

Odour threshold

No information available.

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	< 1	20 °C	200 g/l		
Boiling temperature / boiling range	No information available.				
Melting point / Freezing point	No information available.				
Flash point	No flash point below 100°C.				
Vapourisation rate	No information available.				
Flammable (solid)	No information available.				
Flammability (gas)	No information available.				
Ignition temperature	No information available.				
Self ignition temperature	No information available.				
Lower explosion limit	No information available.				

	Value	Temperature	at	Method	Remark
Upper explosion limit	No information available.				
Vapour pressure	No information available.				
Relative density	1,35 g/cm ³	20 °C		aerometric	
Vapour density	No information available.				
Solubility in water					multimiscible
Solubility/other	No information available.				
Partition coefficient n-octanol/water (log P O/W)	No information available.				
Decomposition temperature	No information available.				
Viscosity	No information available.				

Oxidising properties
 No information available.

Explosive properties
 No information available.

9.2. Other information
 No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
 Corrosive to metals.

10.2. Chemical stability
 No information available.

10.3. Possibility of hazardous reactions
 Reactions with organic substances.
 Reactions with metals, with evolution of hydrogen.
 Reactions with alkalies.

10.4. Conditions to avoid
 If diluting put acid in water, not reverse.

10.5. Incompatible materials
Materials to avoid
 Alkali (lye)

10.6. Hazardous decomposition products
 Sulphur trioxide (SO₃) - mist

Thermal decomposition

Remark No decomposition if used as directed.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	2140 mg/kg	rat		
LC50 acute inhalation	0,51 mg/l (2 h)	rat		
Irritability skin	strong corrosive			
Irritability eye	risk of strong eye injuries			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity	No data available			
Reproduction-Toxicity	No data available			
Carcinogenicity	No data available			

Experiences made from practice

After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

SECTION 12: Ecological information
12.1. Toxicity
Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 16 - 28 g/m ³ (96 h)	Lepomis macrochirus		
Daphnia	EC50 29 g/m ³ (24 h)	Daphnia magna		

12.2. Persistence and degradability
Biological degradability

Inorganic product, cannot be eliminated from the water by biological purification processes.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

Behaviour in sewage plant

The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

General regulation

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

Remove in accordance with local official regulations.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

Recommendations for packaging

Uncontaminated packaging may be taken for recycling.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	2796	2796	2796
14.2. UN proper shipping name	SULPHURIC ACID	SULPHURIC ACID	Sulphuric acid
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	II	II	II
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

No information available.

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

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 8

tunnel restriction code E

Classification code C1

SECTION 15: Regulatory information

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

Other regulations (EU)

Please note:

Observe regulation 98/24/EC for employee health protection against the threat of chemical substances in the workplace.

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

Refer to product information paper.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 2.8

Sources of key data used

Results of own researches and examinations

Literature informations

Toxicity studies, NIOSH-Tox-Data

National legislation and regulation

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

R 35 Causes severe burns.

H314 Causes severe skin burns and eye damage.