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

1.1. Product identifier

Name of product SpaTime HARDNESS STABILISER / ANTI CALCARE
410383

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

Recommended intended purpose(s)
Hardness stabilizer and complexing agents for treatment of 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.eu

1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Met. Corr. 1	**H290**	
Eye Irrit. 2	**H319**	

Hazard Statements

H290	May be corrosive to metals.
H319	Causes serious eye irritation.

2.2. Label elements

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

GHS07

Signal word
Warning

Hazard Statements

H290	May be corrosive to metals.
H319	Causes serious eye irritation.

Precautionary Statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280	Wear protective gloves/eye protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards
Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances
not applicable

3.2. Mixtures
Hazardous ingredients

CAS No	EC No	Name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
37971-36-1	**253-733-5**	**2-Phosphonobutane-1,2,4-tricarboxylic acid**	**< 50**	**Met. korr. 1, H290 / Eye Irrit. 2, H319**

REACH

CAS No	Name	REACH registration number
37971-36-1	2-Phosphonobutane-1,2,4-tricarboxylic acid	01-2119436643-39-XXXX

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Remove contaminated soaked clothing immediately.

In case of inhalation
Remove the casualty into fresh air and keep him immobile.
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off immediately with plenty of water.
Consult a doctor if skin irritation persists.

In case of eye contact
Eye rinsing with water carefully while protecting unhurt eye.
Refer to medical treatment.

In case of ingestion
Seek medical advice 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.
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:
Carbon monoxide (CO)
Carbon dioxide (CO2)

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
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
Take up with absorbent material (e.g. acid binder).
Flush away residues with water.

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
No special measures necessary if used correctly.
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 with alkalies.
Do not store together with animal feedstuffs.
Do not store together with food.

Further information on storage conditions
Store at cool and aired place.

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
No information available.

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
tightly fitting goggles

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
liquid	light yellow	odourless

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 1,9	20 °C	10 g/l	potentiometric	determinated undiluted
boiling point	> 100 °C				
Melting point / Freezing point	not determined				
Flash point	> 100 °C			DIN 51758	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	1,13 g/cm3	20 °C		aerometric	
Vapour density	not determined				
Solubility in water					multimiscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

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
No information available.

10.2. Chemical stability
No information available.

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

10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
Substances to avoid
Alkali (lye)
Oxidising agent

10.6. Hazardous decomposition products
No hazardous decomposition products known.

Thermal decomposition

Remark	No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 2000 mg/kg	rat		
LD50 acute dermal	> 2000 mg/kg	rabbit		
Eye irritation	irritant - risk of strong eye injuries			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity	No data available			

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

Additional information
Toxical dates refer to base substance.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 3440 mg/l (48 h)	Oncorhynchus gorbuscha		
Daphnia	EC50 265 g/m3 (24 h)	Daphnia magna		

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				Slightly biodegradable

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to 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
The ecological figures refer to undiluted 100% pure substance.
The information to ecology refers to main component.

! SECTION 13: Disposal considerations

13.1. Waste treatment methods

! Waste code No.	Name of waste
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

Recommendations for the product
Remove in accordance with local official regulations.
Dispose of as hazardous waste.
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	3265	3265	3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-Phosphonobutane-1,2, 4-tricarboxylic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-Phosphonobutane-1,2,4-tricarboxylic acid)	Corrosive liquid, acidic, organic, n.o.s. (2-Phosphonobutane-1,2,4-tricarboxylic acid)
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	III	III	III
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 C3

SECTION 15: Regulatory information

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

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
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.

Further information
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: 1.1

Sources of key data used
Results of own researches and examinations
Literature informations
Toxicity studies, NIOSH-Tox-Data
National legislation and regulation

H290 May be corrosive to metals.
H319 Causes serious eye irritation.