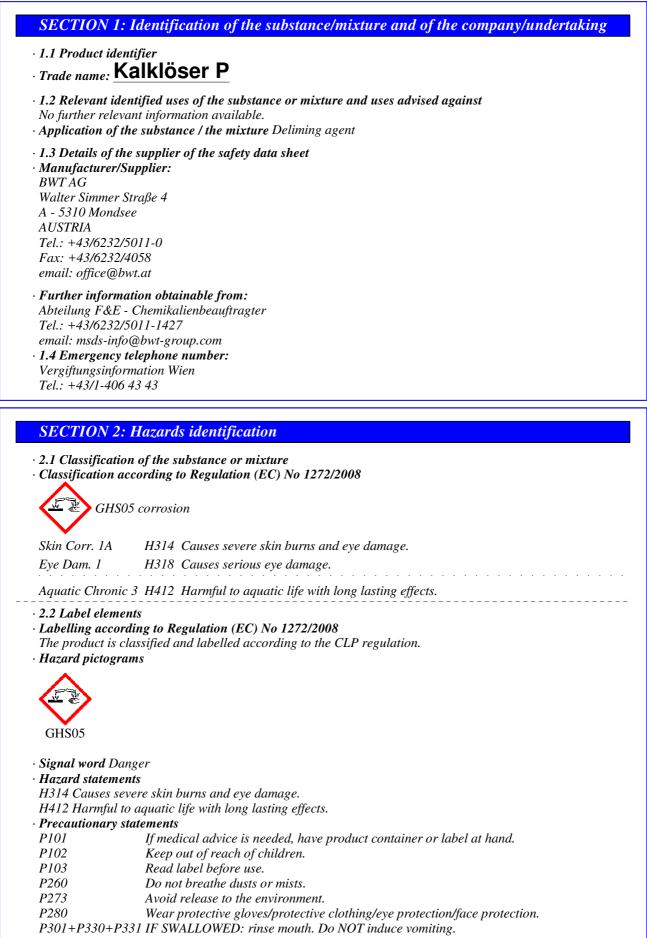


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P303+P361+P	2353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with
	water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+F	P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
2204 1	

· 2.3 Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous compone	ents:	
CAS: 5329-14-6	sulphamic acid	50-100%
EINECS: 226-218-8	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319 Aquatic Chronic 3, H412	
	Aquatic Chronic 3, H412	
CAS: 77-92-9	citric acid	25-50%
EINECS: 201-069-1	� Eye Irrit. 2, H319	
CAS: 95-14-7	Benzotriazol (in nicht atembarer Form)	<i>≤</i> 2.5%
EINECS: 202-394-1	♦ Acute Tox. 4, H302	

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- \cdot 5.2 Special hazards arising from the substance or mixture
- In case of fire, the following can be released:
- Nitrogen oxides (NOx)
- Sulphur dioxide (SO2)
- Sulphur trioxide (SO3) or SO3-mist
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

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BEST WATER TECHNOLOGY

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· Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

- Inform respective authorities in case of seepage into water course or sewage system.
- 6.3 Methods and material for containment and cleaning up: Pick up mechanically.
 Dispose contaminated material as waste according to item 13.
- 6.4 Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

• 7.1 Precautions for safe handling Prevent formation of dust.

- *Information about fire and explosion protection:* No special measures required. The product is not flammable.
- \cdot 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

- Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
- Keep container tightly sealed.
- Store in dry conditions.
- Protect from heat and direct sunlight.
- Protect from frost.
- Storage class: 8B
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

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· Protection of hands:



Protective gloves

Acid resistant gloves

- · Material of gloves Nitrile rubber, NBR
- · Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- · Eye protection:



Tightly sealed goggles

· Body protection: Acid resistant protective clothing

SECTION 9: Physical and chem	nical properties
9.1 Information on basic physical and	chemical properties
General Information	
Appearance:	
Form:	Solid
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.
pH-value at 20 °C:	< 1.2
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling rang	ge: Undetermined.
Flash point:	71 °C
Flammability (solid, gas):	Not determined.
Ignition temperature:	485 °C
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density at 20 °C:	1.0 - 1.2 g/cm ³ (Schüttdichte)
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
water at 20 °C:	250 g/l
Partition coefficient: n-octanol/water:	Not determined.

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· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
Solids content:	100.0 %	
· 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

• 10.3 Possibility of hazardous reactions Reaction with chlorproducts.

Reacts with alkali (lyes).

- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

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

· LD/LC50 values relevant for classification:

5329-14-6 sulphamic acid

Oral LD50 3160 mg/kg (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation
- Causes severe skin burns and eye damage.
- · Serious eye damage/irritation
- Causes serious eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- Remark: Harmful to fish
- \cdot Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

16 03 05* organic wastes containing dangerous substances

· Uncleaned packaging:

- · Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14.1 UN-Number		
ADR, IMDG, IATA	2967	
14.2 UN proper shipping name		
ADR	2967 SULPHAMIC ACID	
IMDG, IATA	SULPHAMIC ACID	
14.3 Transport hazard class(es)		
ADR, IMDG, IATA		
, , ,		
W. S.		
8		
Class	8 Corrosive substances.	
Label	8	
14.4 Packing group		
ADR, IMDG, IATA	III	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Warning: Corrosive substances.	
Danger code (Kemler):	80	
EMS Number:	F- A , S - B	
14.7 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
Transport/Additional information:		
ADR		
Limited quantities (LQ)	5 kg	



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 • Transport category
 3

 • Tunnel restriction code
 E

 • UN "Model Regulation":
 UN2967, SULPHAMIC ACID, 8, III

SECTION 15: Regulatory information

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects. · Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 \cdot * Data compared to the previous version altered.