

Safety Data Sheet

in accordance with Regulation (EC) No. 1907/2006

aquafloc®7 3A2C

Revised on: 16.03.2023

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

1.1. Product identifier

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Substance name: aquafloc
 EuPCS: PC-TEC-OTH
 UFI: V05X-DFMN-A21W-9PN8

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

Use of the substance/mixture

Water treatment chemical for industrial applications

Uses advised against

No known uses that are not recommended

1.3. Details of the supplier providing the safety data sheet

Company name: Aquaservice Industrierwasserrecycling GmbH
 Street: Josef-BurgerStr.1
 City: D-79215 Elzach
 Telephone: +49 7682 921904 Fax: +49 7682 921905
 Email: info@aquaservice-gmbh.com
 Internet: http://www.aquaservice-gmbh.com
 Responsible department: Specialist: Dominik Wehrle
 dominik.wehrle@aquaservice-gmbh.com

1.4. Emergency number: Emergency call centre Mainz: +49(0)613119240

SECTION 2: Possible hazards

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Skin Corr. 1; H314
 Eye Dam. 1; H318
 STOT SE 3; H335

Wording of the hazard statements: see SECTION 16.

2.2. Label elements Regulation

(EC) No. 1272/2008

Hazard-determining components of labelling

Aluminium sulphate
 Calcium oxide

Signal word: Hazard

Pictograms:



Hazard warnings

Causes severe skin burns and eye damage. May irritate the respiratory tract.

Safety instructions

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 UPON CONTACT WITH THE EYES: Rinse gently with water for a few minutes.

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Remove contact lenses if possible. Continue rinsing.
 UPON CONTACT WITH THE SKIN: Wash with plenty of water.
 UPON INHALATION: Take person to an area with fresh air and ensure unobstructed breathing.
 Immediately call POISON CONTROL/physician.

Special labelling of certain mixtures

For professional users only.

2.3. Other hazards

There is no information available.

SECTION 3: Composition/Information on ingredients

3.2. Mixtures

Chemical characterisation

Reaction release agent

Hazardous ingredients

CAS No.	Substance name			Proportion
	EC No.	Index No.	REACH No.	
	Classification (Regulation (EC) No 1272/2008)			
16828-12-9	Aluminium sulphate			35 – < 45%
	233-135-0		01-2119531538-36	
	Met. Corr. 1, Eye Dam. 1; H290 H318			
1305-78-8	Calcium oxide			10 – < 20%
	Skin Corr. 1, Eye Dam. 1, STOT SE 3; H314 H318 H335			

Wording of H- and EUH-phrases: see Section 16.

Specific concentration limits, M-factors and ATE

CAS No.	EC No.	Substance name	Prop
		Specific concentration limits, M-factors and ATE	
16828-12-9	233-135-0	Aluminium sulphate	45 – < 45%
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = >5000 mg/kg	
1305-78-8		Calcium oxide	10 – < 20%
		dermal: LD50 = >2500 mg/kg; oral: LD50 = >2000 mg/kg	

SECTION 4: First aid measures

4.1. Description of the first aid measures

General notes

First responders: Pay attention to self-protection! Remove the affected person from the hazard area and lay them down. .

After inhalation

Get out into fresh air. Consult a doctor if you feel unwell

After skin contact

After contact with skin, wash immediately with plenty of soap and water. In case of skin irritation, consult a doctor.

After eye contact

In case of contact with eyes, rinse immediately with plenty of running water for 10 to 15 minutes with the eyelids open and seek medical advice.

After ingestion

Do not induce vomiting. Rinse mouth with water and drink plenty of water. Seek medical advice immediately

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

There is no information available.

4.3. Indications for necessary immediate medical help or special treatment

Symptomatic treatment.

SECTION 5: Fire fighting measures

5.1. Extinguishing agent

Suitable extinguishing agents

CO₂, extinguishing powder or water spray. Fight larger fire with water spray or alcohol-resistant foam.

Unsuitable extinguishing agents

Water in full jet

5.2. Special hazards arising from the substance or mixture

Non-flammable, sulphur oxides(SOX)

5.3. Advice for fire fighting

Wear self-contained breathing apparatus and chemical protective suit. Full protective suit.

Additional notes

Suppress gases/vapours/fog with water spray. Collect contaminated extinguishing water separately. Do not allow to enter drains or bodies of water.

SECTION 6: Measures in case of accidental spillage

6.1. Personal precautions, protective equipment and procedures to be used in case of emergency

General notes

Ensure sufficient ventilation. Avoid dust formation. Do not inhale dust.
Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Personnel not trained for emergencies

Personal protective equipment: see Section 8

Emergency personnel

Personal protective equipment: see Section 8

6.2. Environmental protection measures

Do not allow to enter drains or bodies of water.

6.3. Methods and material for retention and cleaning For cleaning

Pick up mechanically. Handle the absorbed material according to the Disposal section.

6.4. Reference to other sections

For safe handling: see Section 7
Personal protective equipment: see Section 8
Disposal: see Section 13

SECTION 7: Handling and storage

7.1. Protective measures for safe handling

Notes on safe handling

In case of exposed handling, use equipment with local exhaust ventilation. Avoid dust formation.
Do not inhale dust.

Notes on fire and explosion protection

No special fire protection measures are required.

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Notes on general hygiene measures in the workplace

Immediately remove soiled, saturated clothing. Create and follow the skin protection plan! Wash hands and face thoroughly before breaks and at the end of work; shower if necessary. Do not eat, drink, smoke or snort at the workplace.

7.2. Conditions for safe storage with consideration of incompatibilities Requirements for storage rooms

and containers

Keep container tightly closed. Keep under lock and key. Store in a place accessible only to authorised personnel. Ensure sufficient ventilation and selective extraction at critical points.

Combined storage instructions

No special precautions required.

Storage class according to TRGS 510: 13 (Non-flammable solids that cannot be assigned to any of the above storage classes)

7.3. Specific end uses

Water treatment chemical for industrial applications

SECTION 8: Exposure controls/personal protective equipment

8.1. Parameters to be monitored

Occupational exposure limits

CAS No.	Designation	ppm	mg/m ³	F/m ³	Peak limit	Type
-	General dust limit, alveolar fraction		1.25 A			
-	General dust limit, inhalable fraction		10 E		2(II)	
1305-78-8	Calcium oxide		1 E		2(I)	

DNEL/DMEL values

CAS No.	Designation	Exposure route	Effect	Value
16828-12-9	Aluminium sulphate			
	Employee DNEL, long-term	inhalation	systemic	13.4 mg/m ³
	Employee DNEL, long-term	dermal	systemic	3.8 mg/kg bw/d
1305-78-8	Calcium oxide			
	Employee DNEL, acute	inhalation	local	4 mg/m ³

8.2. Exposure controls and monitoring



Suitable technical control equipment

In case of exposed handling, use equipment with local exhaust ventilation. Do not inhale dust.

Individual protective measures, for example personal protective equipment

eye/face protection

Suitable eye protection: Safety goggles.

Hand protection

When handling chemical agents, only chemical protective gloves with a CE mark may be used

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including a four-digit test number. The design of chemical protective gloves must be selected specifically for the workplace, depending on the concentration and quantity of hazardous substances. It is recommended to check the chemical resistance of the above mentioned protective gloves for specific applications with the glove manufacturer.

Body protection

Personal protective equipment

Respiratory protection

Wear respiratory protection in case of insufficient ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on the basic physical and chemical properties

State of aggregation:	solid	
Colour:	beige	
Odour:	Characteristic	
		Test standard
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	Data not available, 0°C	
Flammability:	not determined	
Lower explosion limit:	not determined	DIN 51649
Upper explosion limit:	not determined	DIN 51649
Flash point:	Data not available	
Ignition temperature:	not determined	ASTM D 1929
Decomposition temperature:	not determined	ASTM D 2879-86
pH value (at 20°C):	7.5–8.0	ASTM D 1287:2011
Water solubility: (at 20°C)	easily soluble	
Solubility in other solvents not determined		
Partition coefficient n-octanol/water:	not determined	OECD (TG) 117
Vapour pressure:	not determined	OECD 104
Density:	Data not available	
Bulk density:	650–500 kg/m ³	
Relative vapour density:	not determined	
Particle properties:	not determined	

9.2. Other information

Information on physical hazard classes

Explosion hazards

The product is not: Explosive.

Oxidising properties

The product is not: oxidising.

Other safety-related parameters

Evaporation rate:	not determined
Solids content:	not determined
Expiry date:	not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions will occur if handled and stored as directed.

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10.2. Chemical stability

The product is stable when stored at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No dangerous reactions are known.

10.4. Conditions to avoid

See Handling and Storage

10.5. Incompatible materials

Oxidising agents, strong acids and alkalis

10.6. Hazardous decomposition products

Upon fire: Sulphur oxides

SECTION 11: Toxicological data

11.1. Information on hazard classes in accordance with Regulation (EC) No 1272/2008

Acute toxicity

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

CAS No.	Designation				
	Exposure route	Dose	Species	Source	Method
16828-12-9	Aluminium sulphate				
	oral	LD50 >5000 mg/kg	Rat	ECHA	OECD 401
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA	OECD 402
1305-78-8	Calcium oxide				
	oral	LD50 >2000 mg/kg	Rat	ECHA	OECD 425
	dermal	LD50 >2500 mg/kg	Rabbit	RCHA	OECD 402

Irritant and corrosive effect

- Causes severe skin burns and eye damage. (Based on test data)
- Causes serious eye damage. (Based on test data)
- Causes serious eye damage
- Causes skin irritation

Sensitising effects

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

Carcinogenic, mutagenic and toxic for reproduction effects

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

Specific target organ toxicity for single exposure

May irritate the respiratory tract. (Based on test data)

Specific target organ toxicity in case of repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

Not applicable.

General remarks

The mixture is classified as dangerous according to Regulation (EC) No 1272/2008 [CLP].

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SECTION 12: Environmental information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No.	Designation					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
16828-12-9	Aluminium sulphate					
	Acute fish toxicity	LC50 > 87.5 mg/L	96 h	Danio rerio	ECHA	OECD 203
	Acute algal toxicity	ErC50 14 mg/L	72 h	Pseudokirchneri	ECHA	OECD 201
	Acute crustacean toxicity	EC50 >200 mg/L	48 h	Daphnia magna	ECHA	OECD 202
	Crustacean toxicity	NOEC 3.8 mg/L	8 d	Cerodaphnia dubia	ECHA	EPA 6004- 89/001
	Acute bacterial toxicity	(EC50 > 1000 mg/L)	3 h		ECHA	OECD
1305-78-8	Calcium oxide					
	Acute fish toxicity	LC50 50.6 mg/L	96 h	Freshwater fish	ECHA	
	Acute crustacean toxicity	EC50 41.1 mg/L	48 h	Freshwater organisms	ECHA	
	Algal toxicity	NOEC 1080 mg/L	14 d		ECHA	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

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. The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain any substance that exhibits endocrine disrupting properties towards non-target organisms as no ingredient meets the criteria.

12.7. Other adverse effects

There is no information available.

Additional notes

Do not allow to enter drains or bodies of water. Do not allow to enter the subsoil/soil.

SECTION 13: Notes on disposal

13.1. Waste treatment process

Recommendations for disposal

Do not allow to enter drains or bodies of water. Do not allow to enter the subsoil/soil. Dispose of in accordance with official regulations.

Waste code – unused product

060314 WASTES FROM ANORGANIC CHEMICAL PROCESSES; wastes from MFSU of salts, Saline solutions and metal oxides; solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

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Disposal of uncleaned packaging and recommended cleaning agents

Non-contaminated and residue-emptied packaging can be recycled. Contaminated packaging must be treated in the same way as the substance.

SECTION 14: Transport details

14.6. Special precautions for the user

There is no information available.

14.7. Carriage of bulk cargoes by sea in accordance with IMO instruments

inapplicable

SECTION 15: Legislation

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

EU regulations

Information on the SEVESO III Directive 2012/18/EU:	Not subject to SEVESO III directive
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National regulations

Employment Restriction:	Observe employment restrictions for young people (§ 22 German Health and Safety at Work Act (JArbSchG)).
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Technical Instructions on Air I: Proportion:	Does not fall under the "TA-Luft"
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Water hazard class:	awg - generally hazardous to water
Status:	water hazard class self-classification
Identification number according to the catalog of substances hazardous to water:	1

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture have not been performed.

SECTION 16: Other information

Abbreviations and acronyms

- CLP: Classification, labelling and packaging
- REACH: Registration, Evaluation and Authorization of Chemicals
- GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
- UN: United Nations
- CAS: Chemical Abstracts Service
- DNEL: Derived No Effect Level
- DMEL: Derived Minimal Effect Level
- PNEC: Predicted No Effect Concentration
- ATE: Acute toxicity estimate
- LC50: Lethal concentration, 50%
- LD50: Lethal dose, 50%
- LL50: Lethal loading, 50%
- EL50: Effect loading, 50%
- EC50: Effective Concentration 50%
- ErC50: Effective Concentration 50%, growth rate
- NOEC: No Observed Effect Concentration
- BCF: Bio-concentration factor
- PBT: persistent, bioaccumulative, toxic
- vPvB: very persistent, very bioaccumulative
- MARPOL: International Convention for the Prevention of Marine Pollution from Ships
- IBC: Intermediate Bulk Container
- SVHC: Substance of Very High Concern

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Classification of mixtures and assessment method used according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Corr. 1; H314	Based on test data
Eye Dam. 1; H318	Based on test data
STOT SE 3; H335	Based on test data

Wording of H- and EUH-phrases (number and full text)

May be corrosive to metals.
 Causes severe skin burns and eye damage. Causes serious eye damage.
 May irritate the respiratory tract.

More details

The information is based on the current state of our knowledge, but does not constitute a guarantee of product characteristics and does not establish a contractual legal relationship. The recipient of our products is responsible for complying with existing laws and regulations.

Data sheet issuing area: See point 1
 Contact : Dominik Wehrle

This Safety Data Sheet has been prepared in accordance with the following guidelines:
 Regulation (EC) No.1907/2006
 Regulation (EC) No.1272/2008

(The data of the hazardous ingredients were taken from the latest safety data sheet of the supplier)