

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 19.02.2016


Version number 1

Revision: 19.02.2016

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

- **1.1 Product identifier**
 - **Trade name: ACA270**
 - **Article number:** 96802051594
 - **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - **Application of the substance / the mixture** Water treatment
 - **1.3 Details of the supplier of the safety data sheet**
 - **Supplier:**
Alfa Laval Copenhagen A/S
Maskinvej 5
DK-2860 Soeborg
Denmark
info.dk@alfalaval.com
Tel: +45 39 53 6000
 - **Further information obtainable from:**
For further questions regarding the safety data sheet, please contact your local Alfa Laval Sales Company which you find at www.alfalaval.com or in section 16 "Other Information" in the end of the safety data sheet
 - **1.4 Emergency telephone number:**
For immediate, life-threatening emergencies, call 999
For health advice and information (24h) dial 111 (NHS direct).
- In Europe: Call 112 and ask for poison information.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Met. Corr.1 H290 May be corrosive to metals.
Eye Dam. 1 H318 Causes serious eye damage.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS05
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Poly aluminium chloride
- **Hazard statements**
H290 May be corrosive to metals.
H318 Causes serious eye damage.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P264 Wash thoroughly after handling.
 P305+P351+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.

- **Additional information:**

- EUH066 Repeated exposure may cause skin dryness or cracking.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 1327-41-9	Poly aluminium chloride	Met. Corr.1, H290; Eye Dam. 1, H318	25-50%
EINECS: 215-477-2			

- **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 if symptoms persists.

- **After skin contact:**

Take off immediately all contaminated clothing.

Immediately wash with water and soap and rinse thoroughly.

If symptoms persist consult doctor.

- **After eye contact:**

IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Seek medical treatment.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do NOT induce vomiting.

If symptoms persist consult doctor.

- **4.2 Most important symptoms and effects, both acute and delayed** Refer to section 11.1

- **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:** Use fire extinguishing methods suitable to surrounding conditions.

- **For safety reasons unsuitable extinguishing agents:** Not applicable.

- **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Hydrogen chloride (HCl)

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Do not breathe vapour.
Do not get in eyes, on skin, or on clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
When using do not eat, drink or smoke.
See Section 8 for information on personal protection equipment.
Avoid contact with skin and eyes.
Ensure that washing facilities are available at the work place.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Unsuitable materials for containers:
metals
Store in a well-ventilated place. Keep container tightly closed.
Store at -30 - 30 °C
- **Information about storage in one common storage facility:**
Do not store together with alkalis (caustic solutions).
Store away from oxidising agents.
Store away from reducing agents.
- **Further information about storage conditions:**
Do not refill residue into storage receptacles.
Keep container tightly sealed.
- **7.3 Specific end use(s)** Professional use only.

SECTION 8: Exposure controls/personal protection

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

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· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

CAS: 1327-41-9 Poly aluminium chloride

TVA Long-term value: 2 mg/m³

· **DNELs**

CAS: 1327-41-9 Poly aluminium chloride

Oral	DNEL: Long term exposure systemic	1.8 mg/m ³ /day (Worker) Calculated for as Al.
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Inhalative	DNEL: Long term exposure systemic	0.5 mg/kg/day (Worker) Calculated as AL.
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· **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.

Use only in well-ventilated areas.

In case of insufficient ventilation, wear suitable respiratory equipment.

· **Respiratory protection:**

Filter B-P2



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

Neoprene gloves

· **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.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing· **Limitation and supervision of exposure into the environment**

Do not allow to enter sewers/ surface or ground water.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Fluid
· Colour:	Light yellow
· Odour:	Odourless
· Odour threshold:	Not determined.

· **pH-value at 20 °C:** > 2· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	110 °C
· Crystallisation temperature / range:	-30 °C

· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:**· **Decomposition temperature:** >200 °C· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure:** Not determined.

· Density at 20 °C:	1.27 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Not determined.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**· **Dynamic at 20 °C:** 30 mPas

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Kinematic:	Not determined.
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· Solvent content:	
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Organic solvents:	0.0 %
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· 9.2 Other information	No further relevant information available.
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SECTION 10: Stability and reactivity

- **10.1 Reactivity** Reacts with various metals.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with metals forming hydrogen.
- **10.4 Conditions to avoid**
Do not store together with alkalis (caustic solutions).
Protect from frost.
Avoid temperatures above 200 ° C without adequate ventilation.
- **10.5 Incompatible materials:**
Store away from oxidising agents.
Store away from reducing agents.
- **10.6 Hazardous decomposition products:** Hydrogen chloride (HCl)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

· Acute toxicity	
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CAS: 1327-41-9 Poly aluminium chloride	
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Oral	LD50	>2000 mg/kg (rat) Calculated as Al.
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Based on available data, the classification criteria are not met.

- **Primary irritant effect:**
- **Skin corrosion/irritation** Prolonged and / or repeated skin contact may cause irritation
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, 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.

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SECTION 12: Ecological information

· 12.1 Toxicity

CAS: 1327-41-9 Poly aluminium chlorideLC50 98 mg/L (daphnia) (OECD Test Guideline 202)
Calculated as Al.

· Aquatic toxicity:

CAS: 1327-41-9 Poly aluminium chloride

LC50 (96h) >1000 mg/L (Fish) (OECD Test Guideline 203)

· **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.

· Additional ecological information:

· General notes:

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

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

The low pH value can have harmful effects on aquatic organisms.

Al-salts can have harmful effects on salmon if pH is below 5,5.

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

The European Waste Catalogue (EWC) waste codes do not refer to product but to origin. The manufacturer is therefore unable to quote a waste code for products which are used in various industries. Any codes shown should be regarded as a recommendation to the user.

· Uncleaned packaging:

· Recommendation:

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, IMDG	UN3264
· IATA	Void
· 14.2 UN proper shipping name	
· ADR	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
· IMDG	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
· IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, IMDG	
· Class	8 Corrosive substances.
· IATA	
· Class	Void
· 14.4 Packing group	
· IMDG	III
· IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Acids
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Tunnel restriction code	(E)
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
EU Regulation (EC) no.1907/2006 (REACH)
- **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.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.

Please contact your local Alfa Laval Sales Company for further questions:

www.alfalaval.com

- **Relevant phrases**
H290 May be corrosive to metals.
H318 Causes serious eye damage.
- **Department issuing MSDS:**
Alfa Laval Materials and Chemistry Centre (MACC)
MACC -Materials & Chemistry Centre
- **Contact:**
Please contact your local Alfa Laval Sales Company for further questions:
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South Africa: info.sa@alfalaval.com
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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)
DNEL: Derived No-Effect Level (REACH)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

* **Data compared to the previous version altered.**