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## Section 1 Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier **Wapo®Floc**
- 1.2 Relevant identified uses of the substance or the mixture and uses advised against.
- Identified use of substance Flocculant
- 1.3 Supplier TCDO Produktionsgesellschaft mbH  
Carola-Blome-Str. 7  
A-5020 Salzburg  
Tel: +43 662 434342-0  
Fax: +43 662 434342-3
- Contact Mr. G. Weiss  
Email: [office@wapotec.at](mailto:office@wapotec.at)
- 1.4 Emergency phone +43 662 43 43 42-0  
Office hours (GMT +1):  
MO - TH: 8.00 - 16.00, FR: 8.00 - 12.00
- Toxicity information centre Vienna:**  
Phone: +43 1 406 43 43  
Available: 0-24h




## Section 2 Hazards identification

- 2.1 Classification of the substance or mixture  
 according to Directive (EC) N° 1272/2008

**Corrosive to metals or mixtures cat. 1**  
**Serious eye irritation cat. 1**

H290 May be corrosive to metals.  
H318 Causes serious eye irritation.

- 2.2 Label elements  
 according to Directive (EC) 1272/2008



**Danger**

H290 May be corrosive to metals.  
H318 Causes serious eye damage.  
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.
P302 + P352	IF ON SKIN: Wash with soap and water.
P305 + P351 + P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
P332 + P313	If skin irritation occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P501	Dispose of contents/container to collection of hazardous waste.

 Danger defining components for labeling

Polyaluminum chloride (CAS: 1327-41-9)

2.3 Other hazards

Unknown.

### Section 3 Information on the ingredients

3.2 Mixtures

 Chemical characteristics

Aquaous solution containing polyaluminium chloride

 Dangerous ingredients

Name	CAS # / EC # / Index #	Con. %	Classification according to Regulation (EC) 1272/2008*	
			Met. Corr. 1 Eye Dam. 1	H290 H318
Polyaluminium-chloride	1327-41-9 / 215-477-2 --	17 - 23	Met. Corr. 1 Eye Dam. 1	H290 H318

\* For the wording of H-Phrases and danger classification see section 16.

\*\* For the substance a monitored workplace-related limit value is to be noted. (see section 8)

### Section 4 First-aid measures

4.1 Description of first-aid measures

Remove immediately all contaminated clothing.  
Consult physician if disturbances occur.  
No medication in case of unconsciousness or cramps.

 After inhalation

Move affected person immediately to fresh air. Consult physician if disturbances occur. In case of unconsciousness storage and transport in stable position

 After skin contact

After skin contact, wash with plenty of water and soap.  
Remove immediately all contaminated clothing.

Consult physician if skin irritation occurs.

☉ After eye contact

After eye contact, rinse eye for 10 to 15 minutes with water holding eye lids apart. Immediately consult physician.

☉ After ingestion

Rinse mouth with water. If victim is conscious: give plenty of water. Consult physician.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed

Depending on patient's condition, symptoms and general condition should be evaluated by a physician.

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## Section 5 Fire-fighting measures

5.1 Extinguishing media

☉ Suitable extinguishing media

Adapt extinguishing media to environment. Product itself is non flammable.

☉ Unsuitable extinguishing media for safety reasons

None.

5.2 Special hazards arising from the substance or mixture

May release small quantities of hydrogen chlorides at temperatures above boiling point.

5.3 Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus and full protective clothing. Do not allow extinguishing water to penetrate into surface or ground water. Dispose of fire residues and contaminated fire extinguishing water in accordance with official regulations.

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## Section 6 Accidental release of material

6.1 Personal precautions, protective equipment and emergency procedures

Restricted access to affected area until cleaning work is completed. Wear suitable protective clothing. Ensure sufficient ventilation. Avoid contact to product. Do not inhale vapours/aerosols.

6.2 Environmental precautions

Do not empty into drains/surface water/ground water.

If the product enters into the sewage system or aquatic environment, notify the appropriate authorities.

Inform responsible authorities if the product penetrates into the ground.

- 6.3 Methods and material for containment and cleaning up  
Bind with absorbent material (sand, diatomaceous earth, acid binder, universal binders, sawdust). Use neutralizers. Dilute with plenty of water. Dispose of absorbed material in accordance with the regulations (see point 13).
- 6.4 Reference to other sections  
Protective measures see point 8  
Disposal see point 13

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## Section 7 Handling and storage

- 7.1 Precautions for safe handling  
Avoid contact with eyes and skin. Keep container tightened.  
Ensure sufficient ventilation/exhausting of the workplace.  
Wear protective clothing. Eye rinsing flasks are mandatory near the workplace.
- 7.2 Conditions for safe storage including any incompatibilities
- ☉ Fire and explosion protection measures  
No special measures required. Do not smoke.
  - ☉ Design of storage rooms and container  
Keep container tightly closed in a dry and cold place.  
Use only tanks which are licensed for this special product.
  - ☉ Material incompatibility  
No data available
  - ☉ Recommended storage temperature      Protect from heat and frost.
  - ☉ VbF class      Not applicable.
  - ☉ Other information      Shelf life 6 months
- 7.3 Specific end uses  
Flocculant

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## Section 8 Exposure controls/personal protection

- 8.1 Control parameters  
The product does not contain relevant quantities of substances with components to be controlled with limiting values (at work).
- 8.2 Exposure controls
- ☉ General protective and hygiene measures  
Follow usual precautions when dealing with chemicals. Keep away from food and drinks. Do not eat or drink at work, wash hands before breaks and end of work. Avoid eye and skin contact.

Avoid inhaling of steam/aerosols. Change contaminated work wear and clean it before the next wearing. Preventive skin protection.

Protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

☉ Respiratory protection

In case of vapour/aerosol use respiratory filter device.

☉ Hand protection

Protective gloves (gum, PVC, nitrile) are recommended to avoid skin contact. 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. The glove must be impermeable and resistant to the product. Choose glove material in consideration of the respective break through times, permeation rates and degradation.

☉ Eye protection

Tightly sealed goggles.

☉ Personal protection

Protective work wear. Choose protective clothing in consideration of concentration or rather quantity of the mixture used.

☉ Environmental exposure controls

Do not allow undiluted to be released into the canalization /groundwater/surface water. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.



## Section 9

### Physical and chemical properties

9.1	Information on basic physical and chemical properties	
☉	Appearance	liquid
☉	Color	colorless to yellowish
☉	Odor	odorless
☉	Odor threshold	No data available.
☉	pH	4 – 4.4
☉	Melting point	No data available.
☉	Initial boiling point / boiling range	100 – 120 °C
☉	Flash point	Not applicable.
☉	Evaporation rate	No data available.
☉	Flammability	No data available.
☉	Upper explosion limit	No data available.

Lower explosion limit	No data available.
Vapor pressure (20°C)	No data available.
Density (20°C)	1.17 – 1.20 g/cm <sup>3</sup>
Water solubility (20°C)	Fully miscible
Partition coefficient: n-octanol-water	No data available.
Auto ignition temperature	No data available.
Decomposition temperature	> 200 °C
Viscosity (20 °C)	No data available.
Explosive properties	The product is none-explosive
Oxidizing properties	No data available.

9.2 Other data  
None.

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## Section 10 Stability and reactivity

10.1	Reactivity No hazardous reaction when using according to intended purpose.
10.2	Chemical stability No decomposition when using according to intended purpose. Protect from frost. To avoid thermic decomposition do not overheat.
10.3	Possibility of hazardous reactions No dangerous reactions known.
10.4	Conditions to avoid Avoid extreme temperatures.
10.5	Incompatible materials Chlorite/Hypochlorite/sulfite, galvanized surfaces, Iron
10.6	Hazardous decomposition products Can release small amounts of hydrogen chlorides at temperatures above boiling point.

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## Section 11 Toxicological information

11.1	Information on toxicological effects The product is not subject to toxicological examinations. Classification relevant LD/LC50-values of individual components (values in literature)
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Name	CAS-Number	
Polyaluminium chloride	1327-41-9	LD <sub>50</sub> (oral/rat) > 2000mg/kg

 Primary irritations

Skin: slight irritation is possible  
 Eye: risk of irreversible eye damage

 Sensitization

No sensitizing effects known.

 Cancerogenity

The product does not contain any ingredients at a concentration equal or higher than 0,1%, being listed as carcinogen at the International Agency for Cancer Research (IARC) or the American Conference for Governmental Industrial Hygienic (ACGIH).

 Mutagenicity

The product does not contain any ingredients at a concentration equal or higher than 0,1%, being listed as mutagen.

 Reproductive toxicity

The product does not contain any ingredients at a concentration equal or higher than 0,1%, being listed as toxic for reproduction.

 Further information

Classification of preparation according to CLP-Regulation (EC) 1272/2008 Annex I and to Dangerous Preparations Directive 1999/45/EC.



## Section 12 Ecological information

12.1

Toxicity

No eco-toxicological tests carried out on the total mixture. Classification of preparation according to CLP-Regulation (EC) 1272/2008 Annex VI.

Polyaluminium chloride:  
 EC<sub>50</sub> (48h/daphnia) = 98 mg/l  
 LC<sub>50</sub> (96h/danio rerio) > 1000 mg/l

12.2

Persistence and degradability

No data available.

12.3

Bioaccumulation potential

No data available.

12.4

Mobility in soil

No data available for the product itself.

12.5

Results of PBT- and vPvB-assessment

No data available.

## 12.6 Other adverse effects

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow undiluted or un-neutralized product to reach sewage system or on-site preflooder.

Rinse off of bigger amounts into drains or water bodies may lead to decreased pH values. A low pH-value harms aquatic organisms. As the pH-value is considerably increased in the dilution of the applicable concentration, the aqueous waste, emptied into drains after the use of the product, is only low water-dangerous.

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## Section 13 Disposal considerations

### 13.1 Waste treatment methods

Product residues have to be disposed by authorized companies only. Do not allow to get into sewer system, surface water or ground water

 Waste key number

51540 g (ÖNORM S 2100); List of waste

 Waste name

Other salts, easily soluble.

 European waste catalogue

160303\*(inorganic wastes containing dangerous substances)

Notice: EAK-waste key is source-related. This may result in another classification. The decision is up to the enduser.

 Contaminated packaging material

Recommendation: Empty container completely and deliver to a specialized company for reconditioning, recycling or disposal.

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## Section 14 Transport Information

### 14.1 UN-Number

2581

### 14.2 UN Proper Shipping Name

ALUMINIUMCHLORID, LÖSUNG  
 ALUMINIUM CHLORIDE, SOLUTION

### 14.3 Transport hazard class



8

### 14.4 Packing group

III

### 14.5 Environmental hazards



None

14.6 Special precautions for the user

Colourless to yellowish fluid. Highly corrosive to most metals. Vapor causes serious irritation to skin, eye and mucosae. Causes serious burns to skin, eye and mucosae.

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

IBC03; EmS: F-A, S-B



## Section 15 Regulatory information

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



This safety data sheet complies with the Regulations (EC) Reach N° 1907/2006. The alloy is classified according to regulation (EC)1272/2008 Annex I.

### National regulatory:

Austria:

-  ChemG 1996 - amendment 2011.  
This product is classified as hazardous mixture (hazardous preparation) according to the Austrian chemical legislation of 1996 - amendment 2011.
-  VbF - Directive about combustible liquids (BGBl 1991/240)  
This product is not considered as combustible liquid.

Germany:

-  Classification in water hazard classes according VwVwS dated 17.05.1999 Annex 4 (self assessment).  
WHC 1 (low hazardous for water)
-  Hazardous incidence ordinance  
Hazardous incidence ordinance, Annex: not mentioned

15.2 Chemical Safety Assessment





The mixture is not subject to material security test

## Section 16 Other information

The information provided on this SDS is correct to the best of our knowledge and information, but not to be considered as warranty or quality specification nor creates contractual relationship. The information given is designed only as guidance for safe handling. Since unknown risk potentials can never be completely ruled out, the product should be handled with the usual care when dealing with chemicals and only for the uses listed in Section 1.

The categorization according to regulation CLP (EC) 1272/2008 is based on the classification of the single component according to Annex VI of regulation CLP (EC) 1272/2008 as well as upon manufacturer details completed by indications from hazardous material database.

-  Relevant H-Phrases

H290	May be corrosive to metals.
H318	Causes serious eye irritation.
 Relevant hazard classification	
Met. Corr. 1	Solids or alloys corrosive to metals category 1
Eye Dam. 1	Serious eye irritation category 1
 Issue	Version 3 replaces previous versions Amendments: 2, 3.2, 7.1, 8.2, 12, 13, 15.1
 Written by	UmEnA GmbH ( <a href="http://www.umena.at">http://www.umena.at</a> )
Translated by	WAPOTEC GmbH
 Short cuts	PBT persistent, bio-accumulative, toxic vPvB high persistent, high bio-accumulative WHC water hazard class ECHA European Chemicals Agency ( <a href="http://www.echa.eu">http://www.echa.eu</a> )

