

Date of issue: 23.03.2017 Replaces Data Sheet of: 25.05.2016
 "*" alterations as compared to previous version; n.ap. = not applicable; n.av. = not available



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

- 1.1 **Product identifier**
Trade Name: PLUSPAC FD 1000, 1465
Article No.: n.av.
Preparation No.: n.av.
Registration No.: n.ap.
- 1.2 **Relevant identified uses of the substance or mixture and uses advised against**
 Identified uses: Potable water treatment, wastewater treatment
- 1.3 **Details of the supplier of the safety data sheet**
- 1.3.1 **Address of the Company / Supplier:**
 Feralco Deutschland GmbH, Große Drakenburger Straße 93-97, D - 31582 Nienburg / Weser
 Telephone: +49-5021-988-470, Telefax: +49-5021-988 481, E-Mail: info.de@feralco.com
- 1.3.2 **Responsible for the data sheet:**
 CoSiChem AG, Ernst-Lemmer-Straße 23, D - 35041 Marburg, info@cosichem.de
- 1.4 **Emergency telephone number**
 Emergency - Telephone of Company / Undertaking Information Centre Specialising in Symptoms of Poisoning
 Telephone: GGIZ +49 361 730730 (24h) Telephone: +44 870 600 6266

SECTION 2: Hazards identification

- 2.1 **Classification of the substance or mixture**
Classification and labelling according to Directive 1272/2008/EC:
 Eye Dam. 1; H318 / Met. Corr. 1; H290
- 2.2 **Label elements**
 Classification according to 1272/2008/EC: Yes.
 Applicable Exemptions: No.
 Signal word(s): Danger
 Component(s): Aluminium chloride, basic
- Hazard pictogram(s):
-
- H - Phrases:**
 H318: Causes serious eye damage.
 H290: May be corrosive to metals.
- * **P - Phrases:**
 P280: Wear protective gloves/protective clothing/eye protection/face 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.
 P234: Keep only in original container.
 P390: Absorb spillage to prevent material damage.
 P406: Store in corrosive resistant container with a resistant inner liner.
- Additional Markings:
 None.
- The above mentioned labelling is valid for distribution to industrial user.
- 2.3 **Other hazards**
 Solutions with low pH-value must be neutralized before discharge. Corrodes base metals.
 This mixture contains no substances which are assessed to be PBT or vPvB.

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SECTION 3: Composition/information on ingredients3.1 **Substances**

n.ap.

3.2 **Mixtures****Chemical Characterisation:**

Aqueous Polyaluminiumchloride-hydroxide solution

Dangerous Ingredients:

Material	CAS - No.	Index - No.	EC - No.	REACH - No.	m% - range
Aluminium chloride, basic	1327-41-9	n.av.	215-477-2	01-2119531563-43-xxxx	10 - 30%
Eye Irrit. 2; H319 / Met. Corr. 1; H290					

Text of H - phrases: see section 16

m% - range: $x - y \triangleq x \geq - < y$ **SECTION 4: First aid measures**4.1 **Description of first aid measures**4.1.1 **Inhalation:**

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

If symptoms persist, call a physician.

4.1.2 **Skin Contact:**

Wash off immediately with plenty of water. If skin irritation persists, call a physician.

4.1.3 **Eye Contact:**

Call a physician immediately. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

4.1.4 **Ingestion:**

Do not induce vomiting. Clean mouth with water and afterwards drink plenty of water. Consult a physician.

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

Ingestion may provoke the following symptoms: nausea, vomiting.

4.3 **Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

SECTION 5: Firefighting measures5.1 **Extinguishing media**5.1.1 **Suitable Extinguishing Media:**

The product itself does not burn.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.1.2 **Extinguishing Media to Avoid:**

high volume water jet.

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

In the event of fire the following can be released: Hydrogen chloride gas (HCl).

5.3 **Advice for firefighters**5.3.1 **Special Protective Equipment:**

Wear positive pressure self-contained breathing apparatus. Wear full protective clothing.

5.3.2 **Additional Information:**

Spray down fumes resulting from fire. Firefighting water reacts corrosive.

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SECTION 6: Accidental release measures

- 6.1 **Personal precautions, protective equipment and emergency procedures**
 See chapter 8.2.2
 Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed.
- 6.2 **Environmental precautions**
 Local authorities should be advised if significant spillages cannot be contained.
 Use mechanical handling equipment. Avoid dust formation.
- 6.3 **Methods and material for containment and cleaning up**
 Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Treat recovered material as described in the section "Disposal considerations".
- 6.4 **Reference to other sections**
 None.

SECTION 7: Handling and storage

- 7.1 **Precautions for safe handling**
- 7.1.1 **Precautions for Safe Handling:**
 Avoid contact with skin and eyes. When using, do not eat, drink or smoke.
 Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday.
 When neutralising, always add the product to the neutralising agent.
 Never add neutralising agent to the product.
- 7.1.2 **Precautions in Case of Fire and Explosion:**
 The product is not flammable. No special precautions required.
- 7.2 **Conditions for safe storage, including any incompatibilities**
- 7.2.1 **Storage Instructions:**
 Keep container tightly closed in a dry and well-ventilated place. acid resisting floor.
- 7.2.2 **Store away from:**
 Incompatible with bases. Incompatible with oxidizing agents.
- 7.2.3 **Further Information on Storage Conditions:**
 Corrosive in contact with metals.
- 7.3 **Specific end use(s)**
 n.av.

SECTION 8: Exposure controls/personal protection

- 8.1 **Control parameters**
- | Material | Limit Value |
|---------------------------|--|
| Aluminium chloride, basic | TLV dust: 10 mg/m ³ (respirable fraction); 3 mg/m ³ (alveole passing fraction) |
- 8.2 **Exposure controls**
- 8.2.1 **Appropriate engineering controls**
 Close container straight after use or if empty. Caution at reopening used containers.
- 8.2.2 **Individual protection measures**
- 8.2.2a **Respiratory Protection:** If ventilation is insufficient, wear respiratory protection Short term:
 filter apparatus, combination filter B-P2
- 8.2.2b **Hand Protection:** Gloves (acid resistant).. Rubber gloves, Viton, Break through time > 8h.
 The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
 Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- 8.2.2c **Eye Protection:** tightly fitting safety goggles
- 8.2.2d **Skin Protection:** protective suit
- 8.2.2e **Further Information:** Observe wearing time limits:
- 8.2.3 **Environmental exposure controls:**
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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

9.1.1	Form: liquid	Colour: colourless- weakly yellow	Odour: not significant
			Odour threshold: n.av.
9.1.2	pH-value, undiluted:	2,2 ± 0,7 *	
	pH-value, 1% aqueous solution:	n.av.	
9.1.3	Boiling point / Boiling - range (°C):	105 - 115, Melting point / Melting range (°C): -15	
9.1.4	Flash point (°C):	n.ap., closed cup	
9.1.5	Flammability (EEC A10/A13):	n.ap.	
9.1.6	Ignition temperature (°C):	n.ap.	
9.1.7	Autoflammability (EEC A16):	n.ap.	
9.1.8	Oxidising properties:	None.	
9.1.9	Explosion hazard:	No.	
9.1.10	Explosion limits (Vol.%) lower:	n.ap., upper: n.ap.	
9.1.11	Vapour pressure:	n.ap.	
	Vapour density (Air = 1):	n.av.	
9.1.12	Density (g/ml):	1,2- 1,4	
9.1.13	Solubility (in Water):	miscible	
	Soluble in:	Soluble in polar solvents	
9.1.14	Partition coefficient, n-Octanol / Water:	n.ap.	
9.1.15	Viscosity:	5 mPa*s /56 Pa*s (FD 1000/FD1465); 20°C *	
9.1.16	Solvent content (m %):	n.ap.	
9.1.17	Thermal decomposition (°C):	> 200	
9.1.18	Evaporation rate:	n.av.	
9.2	Other information		
	n.av.		

SECTION 10: Stability and reactivity**10.1 Reactivity**

None.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

temperatures above 50°C

10.5 Incompatible materials

Reactions with alkalis and metals. Reactions with strong oxidising agents.

10.6 Hazardous decomposition products

Hydrogen chloride gas.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute Health Effects:

Inhalation:	n.av.
Ingestion:	ATEmix: > 2000 mg/Kg
Skin Contact:	ATEmix: > 2000 mg/Kg
Skin corrosion / irritation:	None. (OECD 404)
Serious eye damage / irritation:	Causes serious eye damage.(OECD 405)
Respiratory or skin sensitisation:	Not sensitizing in the maximum-dose test on guinea pigs.; Lit. AICI3
Germ cell mutagenicity:	n.av.
Carcinogenicity:	n.av.
Reproductive toxicity:	n.av.
STOT-single exposure:	n.av.
STOT-repeated exposure:	n.av.
Aspiration hazard:	n.av.

11.1.1 – Practical Experience

11.1.11 n.av.

11.1.12 Practical Experience

Observations relevant for classification:

None.

Further Observations:

Allergic reactions.

Classification of the preparation has been done by calculation in accordance with EEC directives.

SECTION 12: Ecological information**12.1 Toxicity**

AICI3:	LC ₅₀ ; 96h <i>Gambusia affinis</i> : 27 mg/l; IC ₅₀ ; 96h <i>Scenedemus quadricauda</i> : 1,5 - 2 mg/l; IC ₅₀ ; 24h <i>Pseudomonas fluorescens</i> 4,5 mg/l
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12.2 Persistence and degradability

Easily eliminable from water. Can be eliminated from the water by precipitation or flocculation.

12.3 Bioaccumulative potential

n.av.

12.4 Mobility in soil

n.av.

12.5 Results of PBT and vPvB assessment

This mixture contains no substances which are assessed to be PBT or vPvB.

12.6 Other adverse effects

12.6.1 COD-Value, mg/g:	n.ap.
12.6.2 BOD5-Value, mg/g:	n.ap.
12.6.3 AOX-Remarks:	n.ap.
12.6.4 Significant Components:	None.
12.6.5 Other adverse effects:	None.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

13.1.1 Recommendation: R 3/4, D 5/9

Waste - Code - No.: 16 03 03* (VeVA/OMoD)
 The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

In addition comply with the regional authorities.

13.2 Contaminated Packaging

13.2.1 Recommendation: Wash with suitable cleaner. Otherwise as described under Residues.

Packaging that cannot be cleaned should be disposed of as for product

13.2.2 Safe Handling:




As described under Residues.

Handle in accordance with good industrial hygiene and safety practice.

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SECTION 14: Transport information

	ADR	IMDG	IATA
14.1	UN number 3264	3264	3264
14.2	UN proper shipping name UN 3264 Corrosive liquid, acidic, inorganic, n.o.s. (Aluminium hydroxide chloride)	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminium hydroxide chloride)	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminium hydroxide chloride)
14.3	Transport hazard class(es) 8 	8 	8 
14.4	Packing group III	III	III
14.5	Environmental hazards	No.	
14.6	Special precautions for user Transport category: 3 Classification Code: C1 Hazard - No.: 80 LQ: 5 L	F-A, S-B	Packing Instructions (Passenger) 852 Packing Instructions (Cargo) 856
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		
		None.	

SECTION 15: Regulatory information

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
n.av.
- 15.2 **Chemical safety assessment :**
A chemical safety assessment has not been carried out.

SECTION 16: Other information**Text of H phases mentioned in Section 3**

H290: May be corrosive to metals.

H318: Causes serious eye damage.

This datasheet has been compiled in accordance with EU regulation 2015/830.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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