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Date of issue: 05.05.2017 Replaces Data Sheet of: 22.02.2016

"*" 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 S HB80

Article No.: n.av. Preparation No.: n.av.

Registration No.: 01-2119531563-43-XXXX

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

2.2 Label elements

Classification according to 1272/2008/EC: Yes.

Applicable Exemptions: No. Signal word(s): Danger

Component(s): 1327-41-9 Aluminium chloride, basic

Hazard pictogram(s):

H - Phrases:

H318: Causes serious eye damage.

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.

P310: Immediately call a POISON CENTER/doctor.

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.

According to the results of the evaluation this substance is not PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1 Substances

Dangerous Ingredients:

Material CAS - No. Hazard Code(s)	Index - No. / H - phrases	EC - No.	REACH - No.	m% - range
Aluminiumchlor 1327-41-9 Eye Dam. 1; H31	n.av.	215-477-2	01-2119531563-43-xxxx	>95%

3.2 Mixtures

n.ap.

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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 measures

5.1 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 iet.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released: Inorganic substances in powdered form.

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.

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

Use mechanical handling equipment. Sweep up and shovel into suitable containers for disposal.

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. Avoid dust formation.

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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Material Limit Value

Aluminiumchloride, basic TLV dust: 10 mg/m³ (respirable fraction); 3 mg/m³ (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 **Eve 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:

n.av.

SECTION 9: Physical and chemical properties

9.1	Information	on boois	nhvaiaal i	and abamical	l proportion
19. I	miormation	on pasic	biivsicai i	and chemical	Droberties

9.1.1 Form: solid Colour: yellow Odour: almost odourless

Odour threshold: n.av.

9.1.2 pH-value, undiluted: n.ap. pH-value, 1% aqueous solution: ~ 3; 30%

9.1.3 Boiling point / Boiling - range (°C): n.av., Melting point / Melting range (°C): n.av.

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): ~500 kg/m3 Bulk density

9.1.13 Solubility (in Water): 200 – 300 g/l Soluble in: polar solvents

9.1.14 Partition coefficient, n-Octanol / Water: n.av. 9.1.15 Viscosity: n.av. 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.

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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 alkalies and metals. Reactions with strong oxidising agents.

10.6 **Hazardous decomposition products**

Hydrogen chloride gas

SECTION 11: Toxicological information

Information on toxicological effects

Acute Health Effects:

Inhalation:

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: No. Carcinogenicity: No. Reproductive toxicity: No. 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.

Information on toxicology applies to pure product.

SECTION 12: Ecological information

12.1 **Toxicity**

AICI3: LC₅₀; 96h Gambusia affinis: 27 mg/l;

IC₅₀; 96h Scenedemus quadricauda: 1,5 - 2 mg/l; IC₅₀; 24h Pseudomonas fluorescens 4,5 mg/l

12.2 Persistence and degradability

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

None.

12.3 Bioaccumulative potential

n.av.

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

According to the results of the evaluation this substance is not PBT or vPvB

12.6 Other adverse effects

Other adverse effects:

12.6.1 COD-Value, mg/g: n av 12.6.2 BOD5-Value, mg/g: n.av. 12.6.3 AOX-Remarks: Not relevant Significant Components: 12.6.4 None. 12.6.5

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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.

SECTION 14: Transport information						
	ADR Not classified as dangerous in the m	IMDG eaning of transport regulations	IATA s.			
14.1	UN number					
14.2	UN proper shipping name					
14.3	Transport hazard class(es)					
14.4	Packing group					
14.5	Environmental hazards					
14.6	Special precautions for user					
	Transport category: Classification Code: Hazard - No.: LQ:		Packing Instructions (Passenger) Packing Instructions (Cargo)			
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code					
		None.				

SECTION 15: Regulatory information

- 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

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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