

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.11.2013

Revision: 11.11.2013

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

- **Product identifier**
- **Trade name: HydroMet Alpha 100**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Product category**
PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents
PC37 Water treatment chemicals
- **Process category**
PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
- **Environmental release category** ERC6b Industrial use of reactive processing aids
- **Application of the substance / the preparation**
Metal-precipitant
Reducing agent/ Deoxidizer
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Färber & Schmid AG
Oberflächenchemie, Abwasser - und Umwelttechnik
Lerzenstrasse 19
CH - 8953 Dietikon
Phone : + 41 (0) 43 322 40 40
Fax : + 41 (0) 43 322 40 44
E-mail : fs@faerber-schmid.ch
- **Further information obtainable from:** Dept. environmental laboratory
- **Emergency telephone number:** Swiss Toxicological Centrum ; Phone + 41 (0) 44 251 51 51

2 Hazards identification

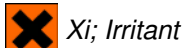
- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2 H319 Causes serious eye irritation.
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant
 R36/38: Irritating to eyes and skin.
 R31-52/53: Contact with acids liberates toxic gas. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided. overdosage of the product has to be avoided.

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

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- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard statements**
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P273 Avoid release to the environment.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P321 Specific treatment (see on this label).
 P362 Take off contaminated clothing and wash before reuse.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
 EUH031 Contact with acids liberates toxic gas.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

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

- **Dangerous components:**

25987-06-8	Poly-(iminoethylene)-dithiocarbamat - Polymer Xi R36/38 R31-52/53 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	25-50%
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- **SVHC** No SVHC
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information:**
 Immediately remove any clothing soiled by the product.
 In case of irregular breathing or respiratory arrest provide artificial respiration.
 Take affected persons out of danger area and lay down.
 Position and transport stably in side position.
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
 Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:** symptomatic treatment , e.g. decontamination , vitalfunfion

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- **Most important symptoms and effects, both acute and delayed**
 - Nausea
 - Profuse sweating
 - Cramp
 - Dizziness
- **Hazards** Condition may deteriorate with alcohol consumption.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
product itself does not burn. Adjust fire fighting measures to the surrounding.
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Water haze
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep people at a distance and stay on the windward side.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Mount respiratory protective device.
- **Environmental precautions:**
Prevent from spreading (e.g. by damming-in or oil barriers).
Keep contaminated washing water and dispose of appropriately.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Open and handle receptacle with care.
Avoid contact with skin and eyes.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

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- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Provide alkali-resistant floor.
Store in a cool location.
Use only receptacles specifically permitted for this substance/product.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:**
Storage conditions : 10-25 °C !!
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Store under lock and key and with access restricted to technical experts or their assistants only.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device when high concentrations are present.
- **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.
- **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.
- **For the permanent contact gloves made of the following materials are suitable:**
Butyl rubber, BR

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Alkaline resistant protective clothing

9 Physical and chemical properties

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

· Form:	Fluid
· Colour:	Dark green
· Odour:	Weak, characteristic

· **pH-value (100 g/l) at 20 °C:** 11.5-12.5· **Change in condition**

· Melting point/Melting range:	< -5 °C
· Boiling point/Boiling range:	> 100 °C

· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Product is not flammable.· **Ignition temperature:**· **Decomposition temperature:** > 100 °C· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Vapour pressure at 20 °C:** 2.2 kPa· **Density at 20 °C:** 1.25-1.30 g/cm³· **Solubility in / Miscibility with water:** Fully miscible.· **Viscosity:**· **Dynamic at 20 °C:** 5-50 mPas· **Solvent content:**

· Organic solvents:	0.0 %
· VOC (EC)	0.00 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity**· **Chemical stability**· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.
To avoid thermal decomposition do not overheat.

· **Possibility of hazardous reactions**

Contact with acids releases toxic gases.
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong acids and oxidizing agents.

· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.

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- **Hazardous decomposition products:**
Hydrogen sulphide
Carbon bisulphide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
Oral ; LD50 > 1000 mg/kg Ratte/rat
Dermal ; LD50 > 1000 mg/kg Kaninchen/rabbit
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
Genotoxicity : The substance was so far not mutagenic in bacteria as well as in mammalian cell culture.
Reproductive Toxicity : The results of animal studies so far gave no indication of a fertility impairing effect.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** No CMR-effets known.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**
Daphnia magna , EC50 / 48h = > 100 mg/l
Poecilia reticulata , EC50 / 96h = > 100 mg/l
- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is biodegradable.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:**
The product causes an alteration of the pH-value within the testing system. The result refers to the non-neutralised sample.
After neutralization a reduction of the harming action may be recognized
The product is instabile against oxidation. The delared action may be partly caused by the oxidation products.
Harmful to algae
- **Other information:** Do not flow material in to environment
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
The product should not be released into the aquatic environment without preliminary treatments (purification plant).
According to the criteria of the EU-classification and labelling "dangerous for environment"(93/21/EWG) the substance/ the product has to be classified as non-hazardous for the environment.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste disposal key:**
VeVa Code : 160305 organic liquid waste with possible dangerous substances.
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· UN-Number	
· ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	Yes
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· ADR	
· Limited quantities (LQ)	LQ7
· Transport category	2
· Tunnel restriction code	E
· UN "Model Regulation":	-

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Relevant phrases**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
- **R31 Contact with acids liberates toxic gas.**
R36/38 Irritating to eyes and skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Department issuing MSDS:** Dept. environmental laboratory
- **Contact:**
 Mr. Felix Schmid
 Head of Lab and environmental issues
 E-mail: fschmid@faerber-schmid.ch
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
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 Harmonized 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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
- *** Data compared to the previous version altered.**

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