

Connecting**Chemistry**



## **ENVIRONMENTAL DACH**

Waste Water and Sludge  
Treatment



# Water chemistry

## Cleanly and clearly

### **ABOUT WASTE WATER**

The industrial and municipal use of water within a wide variety of production processes causes challenges when cleaning and reusing the water. In these fields especially there are always new, even better, more efficient process technologies and products for water treatment.

In addition to an extensive product range, Brenntag offers high quality chemicals for Waste Water treatment as well as consultation on the corresponding application technology. In this way, with the aim of successful and sustainable water management, system optimization is equivalent to efficient product use

### **ABOUT MUD**

Residues from mechanical and biological cleaning of industrial or municipal waste form sludge as a result of the processing process. The economic and ecological treatment of the sludge is also a big challenge for the quality of more effective chemicals for drainage, thickening, foam control and odor reduction. Technical processes and high quality chemicals go hand in hand here. In addition to all necessary products Brenntag also offers extensive procedural support with appropriate consulting, laboratory and operational trials.

## Waste Water treatment

# Biological

**Applications in the municipal Waste Water sector landfill leachate systems and in industry**

### **P-FALLING**

Elimination of phosphorus is necessary to avoid water reutrophication. Here the use of metal salts offers a proven solution.

### **THREAD BACTERIA / LEAF SLUDGE**

Many operational problems arise from thread-like bacteria which deteriorate the sedimentation capacity of the sludge and lead to a high sludge index. The causes are varied and complex. Metal salts with aluminum base deliver good results when fighting bulking and floating sludge. They also form bioactive substances with polymer content for further solution approaches.

### **NUTRIENT DEFICIENCY**

In biological Waste Water treatment the degradation performance and activity of the microorganisms depend on the correct nutrient ratio C: N: P. Strength Deviations from this lead to impairments. Here the new nutrient sources from the nutrient concept from Brenntag come into play.

### **SLUDGE OUTPUT**

There are increased drainage values and turbidity in the sludge drainage output. Remedial action are metal salts, polymer flocculants and special products.

### **ODOR FORMATION**

The reduction of the hydrogen sulfide concentration in channel systems is a classic application for our innovative product Clorious2 and for our nitrate compounds and metal salts.

### **ACID CAPACITY**

In soft waters, the low acid capacity can be compensated for by adding lime products. Acids and alkalis are used to correct the pH values used.

## Waste Water treatment

# Chemical-physical

### Chemical and physical waste water treatment plant application

#### **SOLID-LIQUID SEPARATION**

The separation of undissolved components by means of flotation, filtration or sedimentation is a key component of industrial Waste Water treatment. The formation of micro flakes with the help of metal salts and support macro flakes with the help of flocculants support these operations.

#### **EMULSION SPLITTER**

Special emulsion splitters are used for oil-water separation.

#### **FOAMING**

Unwanted foam in both production processes as well as in the Waste Water by adding defoaming and venting can be prevented.

#### **SOLVED HEAVY METALS**

Complex-bound heavy metals can be found after failure to use specialty products. These products can be used in a wide pH range.

#### **ADSORBENTS**

Dissolved pollutants can be filtered out of the water using water adsorbants.

#### **DEPOSITS**

Deposits in water-bearing systems and in areas of sludge dewatering lead to costly problems. Deposits inhibitors can be dosed against precipitation. Precipitation from the Waste Water and existing deposits are also safely removed at high salt loads and temperatures.

Clear thing

## Product range

### PRODUCT CLASSES

### PRODUCTS

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#### Metal salts

Iron salts, iron salt solutions, aluminum salts, aluminum salt solutions, magnesium chloride solutions, mixed products, combination products with polymers

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#### Polymer flocculants

Anionic and cationic products, in solid and liquid shape, linear and networked, aqueous solutions

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#### Nutrient sources

C-, N-, P-sources and special formulations

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#### Defoamer / ventilator

Silicone-free and silicone-containing defoamers, dispersion defoamers

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#### Special products

Organic and inorganic heavy metal precipitant, deposit inhibitor, emulsion splitter, adsorbents, disinfectants

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#### Odor elimination and corrosion

Chlorine dioxide solution Clorious2, calcium nitrate and metal salts, nitrate compounds, oxidizing agent

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#### Neutralizing agent

Acids and alkalis, lime products

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#### Oil and chemical binder

For solid surfaces and as liquid carpet

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## Our product and service portfolio

### At a glance

#### WASTE WATER AND SLUDGE

In addition to the specific products, we also offer you a comprehensive application service, from advice, laboratory and operational tests to provision of release systems.

#### COOLING AND PROCESS WATER

Our application engineers advise and support you gladly, starting from the laboratory through operational tests and to system optimization.

#### DRINKING WATER

We supply you with all processing substances that are liquid and solid products for precipitation, disinfection and filtration, as well as the know-how of our professionals.

#### POOL WATER

Through competent service in the field of swimming pool water treatment and swimming pool technology as well as chemicals we carry out microbiological analyses for optimal and customized solutions.

#### FROM A SINGLE SOURCE

- Application-oriented advice
- Optimal logistics for security of supply of industrial and specialty chemicals
- Mixtures and services
- Assembly
- Single sourcing

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