



## Granular Ferric Hydroxide for the Treatment of Natural Waters

- ✓ Remediation of eutrophic waters
- ✓ Nutrient elimination in natural swimming pools and swimming ponds
- ✓ Treatment of thermal water

### ■ Product Description

How can you remove phosphate and other impurities from natural waters without adding chemicals?

With GEH® 104, based on granular ferric hydroxide. Thanks to its patented method of production, it is able to adsorb pollutants specifically from water and remove them without leaving any residue. Our granulate meets the highest criteria and all the requirements of DIN EN 15029.

Effectively cleanse eutrophic waters with GEH® 104.

### ■ Target Substances

Contaminants, which are removed by GEH® 104 from water:

- › Arsenic (As)
- › Copper (Cu)
- › Molybdenum (Mo)
- › Lead (Pb)
- › Antimony (Sb)
- › Uranium (U)
- › Vanadium (V)
- › Zinc (Zn)
- › Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>)
- › Hydrogen Sulfide (H<sub>2</sub>S)
- › Phosphate (PO<sub>4</sub>)
- › Silicate (SiO<sub>4</sub>)

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## ■ Properties

Chemical composition	$\beta$ -FeOOH and Fe(OH) <sub>3</sub>
Dry solid content	58 % (± 10 %)
Iron content, relative to dry solids	600 g/kg (± 10 %)
Particle size range	0.2 – 2.0 mm
Undersize fraction	< 10 %
Total oversize and undersize fraction	< 20 %
Bulk density, backwashed	1150 kg/m <sup>3</sup> (± 10 %)
Specific surface area (BET-method)	approx. 300 m <sup>2</sup> /g

## ■ Underground Filter Beds

GEH<sup>®</sup> 104 is used regularly in adsorption filters which can be operated in upflow or downflow configuration. Additionally, it can be used in underground filter beds. When dimensioning an underground filter, in addition to the calculation of the required quantity of GEH<sup>®</sup> 104, as well as the hydraulic load of the system, also information about the geological situation is required. The adsorption capacity depends on the water parameters and operating conditions. A specialized planner should be involved for the dimensioning and design.

## ■ Transport and Storage

The packaging takes place in big bags or plastic drums, whereby the filling quantities are directed to the individual customers' needs.

The product is stable and can be stored for at least one year. To prevent the material from drying out, the big bags should be closed and, if possible, not stored outdoors. Outdoor storage is possible in plastic bags or protected from direct sunlight and at moderate temperatures (0 - 25° C). The big bags must not be stacked.

## ■ Individual Application Advice

Every application in water treatment has its own special requirements. A meaningful dimensioning of the plant and definition of the operating conditions can only be made after examining the individual case. The recommendations contained in this data sheet are therefore legally not binding. We will gladly advise you in detail on your application.

In addition, the General Terms and Conditions of GEH Wasserchemie GmbH & Co. KG apply.



Quality management system certified in accordance with ISO 9001:2015

