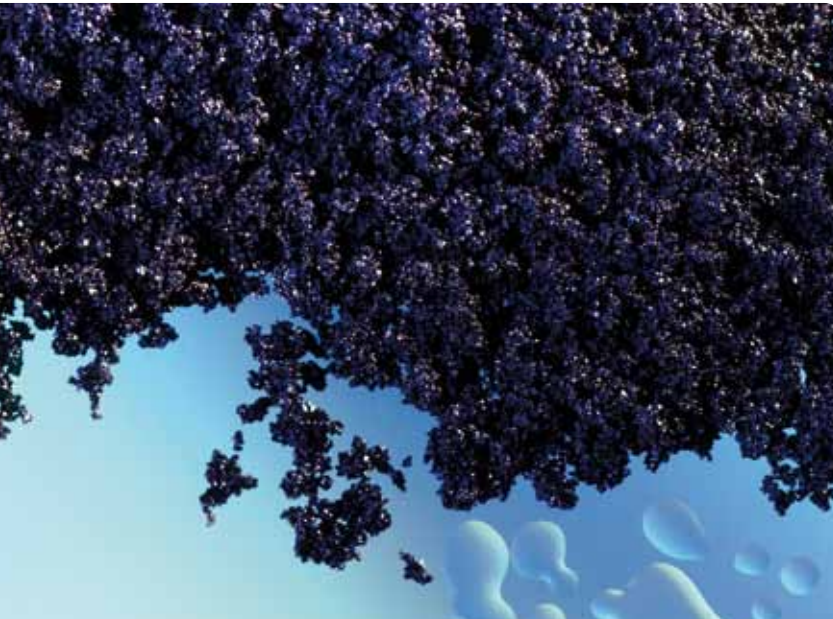


## ■ Arsenic Removal

**GEH**<sup>®</sup>  
**102**



### **GEH 102 | Granular Ferric Hydroxide for Arsenic Removal from Drinking Water**

#### ■ **Product Description**

GEH 102 is a high-performance adsorbent based on granular ferric hydroxide. Made in a patented manufacturing process, it was specially developed for selective removal of arsenic from water.

Recognized for its high quality and purity, GEH 102 adsorbent complies with all requirements of DIN EN 15029 for drinking water treatment. In addition it is certified in accordance with NSF/ANSI Standard 61.

#### ■ **Application Sectors**

GEH 102 is an adsorbent for drinking water treatment which permits reduction of As content to well below 10 µg/L without changing the water's characteristic composition.

GEH 102 is generally used in bulk form in large-scale adsorption filters but can also be used by end consumers in cartridge-housed systems (point-of-use systems).

GEH 102 removes both arsenates and arsenites. Its adsorption capacity is dependent on the characteristics and composition of the water treated as well as the operating conditions.

## Granular Ferric Hydroxide for Arsenic Removal from Drinking Water

### ■ Properties

Chemical composition	$\beta$ -FeOOH and Fe(OH) <sub>3</sub>
Dry solids content	57 % (± 10 %)
Iron content	610 g/kg (± 10 %), relative to dry solids
Particle size range	0.2 – 2.0 mm
Oversize fraction	< 10 %
Undersize fraction	< 10 %
Bulk density, backwashed	1150 kg/m <sup>3</sup> (± 10 %)
Specific surface area (BET method)	approx. 300 m <sup>2</sup> /g

### ■ Recommended Operating Conditions

<b>Adsorption filters</b>	
Bed depth	0.8 – 1.6 m
Freeboard height	50 % of bed depth
Filtration flow rate	≤ 20 m/h
Empty bed contact time (EBCT)	≥ 3 min
Permissible pressure drop	max. 0.5 bar (7 psi)
Backwash flow rate	26 m/h (backwash with water only)
Duration of backwashing	until outlet water is clear
<b>Point-Of-Use Systems</b>	
Recommended operating conditions for cartridge systems are basically the same as for adsorption filters used in	centralized water treatment. We will be glad to advise and assist you in design of your point-of-use systems upon request.

### ■ Transport and Storage

GEH 102 is supplied in plastic drums, FIBC's ("big bags") or tank trucks in the specific quantities required by the customer. The product is not subject to degradation in storage and has a storage life of at least 1 year. The product must not be permitted to dry out (e.g. do not expose to intense sunlight).

### ■ Individual Applications Advice

Every application in water treatment is unique. A water treatment system must be studied in detail including all peripheral factors before its operating conditions can be determined. Accordingly the recommendations given above are general in nature and not legally binding. GEH Wasserchemie will gladly provide applications advice regarding dimensioning of your specific adsorption filter.

Please refer as well to the General Terms and Conditions of GEH Wasserchemie GmbH & Co. KG which apply to all business transactions.

Quality management system certified  
in accordance with ISO 9001:2008

