

GEH Wasserchemie GmbH & Co. KG  
49090 Osnabrück

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**GEH® 101, GEH® 102, GEH® 103, GEH® 104, GEH® 105, GEH®-FK  
µ-GEH®**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1 Relevant uses

Chemical raw material / Water treatment

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

#### Company

GEH Wasserchemie GmbH & Co. KG  
Adolf-Köhne-Straße 4  
49090 Osnabrück / GERMANY  
Phone +49 (0) 541-122009  
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Homepage [www.geh-wasserchemie.de](http://www.geh-wasserchemie.de)  
E-mail [info@geh-wasserchemie.de](mailto:info@geh-wasserchemie.de)

#### Address enquiries to

##### Technical information

[info@geh-wasserchemie.de](mailto:info@geh-wasserchemie.de)

##### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

### 1.4 Emergency telephone number

#### Company

+49 (0) 541-122009 Mo-Fr 9:00 - 17:00

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with GHS/CLP-directives.

#### Hazard pictograms

#### Hazard statements

none

### 2.3 Other hazards

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

none

## SECTION 3: Composition / Information on ingredients

### Product-type:

3.2 The product is a mixture.

Range [%]	Substance
50 - 60	Iron hydroxide oxide yellow CAS: 51274-00-1, EINECS/ELINCS: 257-098-5, Reg-No.: 01-2119457554-33-XXXX

### Comment on component parts

No dangerous components.  
Before the registration of iron hydroxide oxide yellow the following substance-identifiers have been used: CAS 20344-49-4 / EINECS 243-746-4  
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

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#### SECTION 4: First aid measures

##### 4.1 Description of first aid measures

<b>General information</b>	Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	When in contact with the skin, clean with soap and water.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Rinse out mouth and give plenty of water to drink. In the event of symptoms seek medical treatment.

##### 4.2 Most important symptoms and effects, both acute and delayed

None known.

##### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5: Fire-fighting measures

##### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.
<b>Extinguishing media that must not be used</b>	Full water jet

##### 5.2 Special hazards arising from the substance or mixture

none

##### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

#### SECTION 6: Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

No special measures necessary.

##### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

##### 6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid production of dust.  
Dispose of absorbed material in accordance with the regulations.

##### 6.4 Reference to other sections

See SECTION 8+13

#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.

Wash hands before breaks and after work.  
Use barrier skin cream.  
Do not eat, drink, smoke or take drugs at work.

## 7.2 Conditions for safe storage, including any incompatibilities

- Keep only in original container.
- Do not store together with oxidizing agents.
- Do not store together with acids.
- Do not store together with food and animal food/diet.
- Recommended storage temperature: room temperature.

## 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (GB)

not applicable

#### DNEL

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
Industrial, inhalative, Long-term - local effects: 10 mg/m <sup>3</sup> .

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m <sup>3</sup> particle inhalable; 3 mg/m <sup>3</sup> particle respirable). Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	Leather (EN 388). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Protective clothing (EN 340)
<b>Other</b>	Avoid contact with eyes and skin.
<b>Respiratory protection</b>	Not required under normal conditions.
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	granules
Color	black
Odor	odourless
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	5,5 - 7,5
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/ml]	1,15
Bulk density [kg/m <sup>3</sup> ]	1115
Solubility in water	insoluble < 0,1 g/l
Partition coefficient [n-octanol/water]	not applicable
Viscosity	not applicable
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	> 1000
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Reactions with acids.  
Reactions with strong oxidizing agents.

### 10.4 Conditions to avoid

See SECTION 7.2.

### 10.5 Incompatible materials

Strong oxidizing agent.  
Acids

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## 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, inhalativ (dust), > 5 mg/l 4h.
ATE-mix, dermal, > 2000 mg/kg.
ATE-mix, oral, > 2000 mg/kg.

  

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
LD50, oral, Rat: > 10000 mg/kg.
LC50, inhalative, Rat: >195,7 mg/m <sup>3</sup> (6h) (Lit.).

<b>Serious eye damage/irritation</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Skin corrosion/irritation</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Respiratory or skin sensitisation</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Specific target organ toxicity — single exposure</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Specific target organ toxicity — repeated exposure</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Mutagenicity</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Reproduction toxicity</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Carcinogenicity</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
<b>Aspiration hazard</b>	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.
<b>General remarks</b>	none

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
EC50, (48h), Daphnia magna: >100 mg/l (Lit.).
LC0, (96h), fish: >100 000 mg/l (Lit.).

## 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	Iron hydroxide oxide to adsorb nutrient, specially phosphate.
<b>Biological degradability</b>	not applicable

## 12.3 Bioaccumulative potential

not applicable

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

not applicable

## 12.6 Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

For recycling, consult manufacturer.

#### Waste no. (recommended)

190206  
190205\*

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.

#### Waste no. (recommended)

150102  
150110\*

## SECTION 14: Transport information

### 14.1 UN number

**Transport by land according to ADR/RID** not applicable

**Inland navigation (ADN)** not applicable

**Marine transport in accordance with IMDG** not applicable

**Air transport in accordance with IATA** not applicable

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#### 14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"

#### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

#### 14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

#### 14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

<b>EEC-REGULATIONS</b>	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
<b>TRANSPORT-REGULATIONS</b>	ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	none
- VOC (2010/75/CE)	0%

### 15.2 Chemical safety assessment

For the following substances of this preparation a chemical safety assessment has been carried out: FeOOH

## SECTION 16: Other information

### 16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

### 16.2 Other information

<b>Customs Tariff</b>	28 21 10 00
<b>Classification procedure</b>	
<b>Modified position</b>	none



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