

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  
Fax +49 (0) 541-1811990  
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) (No dispatch of safety data sheets)  
Safety data sheets are available from the supplier.

### 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 [GHS]

No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with GHS (Rev. 9)

#### Hazard pictograms

none

#### Signal word

none

#### Hazard statements

none

#### Precautionary statements

none

### 2.3 Other hazards

#### Human health dangers

Contains no ingredients with endocrine-disrupting properties.

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

none

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

not applicable

### 3.2 Mixtures

The product is a mixture.

Range [%]	Substance
50 - 60	Iron hydroxide oxide yellow
	CAS: 51274-00-1

#### Comment on component parts

Contains no hazardous ingredients.

#### 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 within 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 within 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 snuff while working.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Prevent penetration into the ground.  
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 (GHS)

not applicable

#### DNEL

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
There are no DNEL values established for the substance.

#### PNEC

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
There are no PNEC values established for the substance.

### 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).
<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

Physical state	solid
Form	granules
Color	black
Odor	odourless
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	5,5 - 7,5
Boiling point or initial boiling point and boiling range [°C]	not applicable
Flash point [°C]	not applicable
Flammability	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm <sup>3</sup> ]	1,15
Relative density	not determined
Bulk density [kg/m <sup>3</sup> ]	1115
Solubility in water [g/L]	insoluble < 0,1 g/l
Solubility other solvents	not required
Partition coefficient n-octanol/water (log value)	not applicable
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Melting point [°C]	> 1000
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable
Particle characteristics	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

#### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute oral toxicity**

Product
ATE-mix, oral, > 5000 mg/kg
Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
LD50, oral, Rat, > 10000 mg/kg

**Acute dermal toxicity**

Product
ATE-mix, dermal, > 5000 mg/kg

**Acute inhalational toxicity**

Product
ATE-mix, inhalativ (dust), > 5 mg/l 4h
Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
LC50, inhalativ (dust), Rat, > 5,05 mg/L 4h

**Serious eye damage/irritation** Based on the available information, the classification criteria are not fulfilled.

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
Eye, non-irritating

**Skin corrosion/irritation** Based on the available information, the classification criteria are not fulfilled.

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
dermal, non-irritating

**Respiratory or skin sensitisation** Based on the available information, the classification criteria are not fulfilled.

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
dermal, non-sensitizing

**Specific target organ toxicity — single exposure** Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity — repeated exposure** Based on the available information, the classification criteria are not fulfilled.

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
NOAEC, inhalative, Rat, 4,7 mg/m <sup>3</sup> (subchronic), The effects observed are not sufficient for classification.

**Mutagenicity** Based on the available information, the classification criteria are not fulfilled.

Substance
Iron hydroxide oxide yellow, CAS: 51274-00-1
in vitro, negativ

**Reproduction toxicity** Based on the available information, the classification criteria are not fulfilled.

**- Fertility**

Substance
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Iron hydroxide oxide yellow, CAS: 51274-00-1

oral, no adverse effect observed

**- Development**

Substance

Iron hydroxide oxide yellow, CAS: 51274-00-1

oral, Rat, no adverse effect observed

**Carcinogenicity**

Based on the available information, the classification criteria are not fulfilled.

Substance

Iron hydroxide oxide yellow, CAS: 51274-00-1

no adverse effect observed

**Aspiration hazard**

Based on the available information, the classification criteria are not fulfilled.

**General remarks**

Toxicological data of complete product are not available.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Substance

Iron hydroxide oxide yellow, CAS: 51274-00-1

LC50, (4d), Fish, 100 g/L

EC50, (48h), Daphnia magna, >100 mg/l (Lit.)

LC0, (96h), Fish, >100 000 mg/l (Lit.)

LC0, (4d), Fish, 10 - 100 g/L

**12.2 Persistence and degradability**

**Behaviour in environment compartments**

not determined

**Behaviour in sewage plant**

Iron hydroxide oxide to adsorb nutrient, specially phosphate.

**Biological degradability**

not applicable

**12.3 Bioaccumulative potential**

not applicable

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

Based on all available information not to be classified as PBT or vPvB respectively.

**12.6 Endocrine disrupting properties**

Contains no ingredients with endocrine-disrupting properties.

**12.7 Other adverse effects**

None known.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

For recycling, consult manufacturer.

##### Contaminated packaging

Uncontaminated packaging may be taken for recycling.

### 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

#### 14.2 UN proper shipping name

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

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

TRANSPORT-REGULATIONS DOT-Classification, ADR (2025); IMDG-Code (2025, 42. Amdt.); IATA-DGR (2026)

NATIONAL REGULATIONS (GHS): GHS Rev. 11 (2025)

- Observe employment restrictions for people none

- VOC (2010/75/CE) 0%

#### 15.2 Chemical safety assessment

not applicable

## 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  
EL50 = Median effective loading  
ELINCS = European List of Notified Chemical Substances  
EmS = Emergency Schedules  
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  
LL50 = Median lethal loading  
LQ = Limited Quantities  
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

Customs Tariff	28 21 10 00
Modified position	none

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