

GEH Wasserchemie GmbH & Co. KG  
49090 Osnabrück

Created: 21.01.2013, Revision 21.01.2013

Version 02. Supersedes version: 01

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## SECTION 1: Identification of the substance / preparation and of the company

### 1.1 Product identifier

**GEH® 101, GEH® 102, GEH® 104, GEH® 105**

### 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)

### 1.4 Emergency phone

#### Company

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

##### Hazard pictograms

not applicable

#### 2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC

##### Hazard symbols

none

##### R-phrases

none

The product does not require a hazard warning label in accordance with EC-directives.

### 2.2 Label elements

#### Labelling according to Regulation 67/548/EEC or 1999/45/EC

##### Hazard symbols

none

##### R-phrases

none

### 2.3 Other hazards

#### Physico-chemical hazards

No particular hazards known.

#### Human health dangers

No particular hazards known.

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

none

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### SECTION 3: Composition / Information on ingredients

#### 3.1 Product-type:

The product is a mixture.

Range [%]	Substance
50 - 60	Iron hydroxide oxide yellow
	CAS: 51274-00-1, EINECS/ELINCS: 257-098-5, ECB-Nr.: 01-2119457554-33-xxxx
	GHS/CLP:

#### 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%.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

none

##### Inhalation

Ensure supply of fresh air.

##### Skin contact

In case of contact with skin wash off with warm water.

##### Eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

##### Ingestion

Rinse out mouth and give plenty of water to drink.

In the event of symptoms seek for medical treatment.

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

not determined

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

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

##### Extinguishing media that must not be used

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.

Dispose of absorbed material in accordance with the regulations.

#### 6.4 Reference to other sections

See SECTION 8+13

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures necessary if used correctly.

### 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.

### 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

### 8.2 Exposure controls

**Additional advice on system design** Ensure adequate ventilation on workstation.

**Eye protection** Safety glasses.

**Hand protection** Leather (EN 388).  
The details concerned are recommendations. Please contact the glove supplier for further information.

**Skin protection** Not required under normal conditions.

**Other** Avoid contact with eyes and skin.

Wash hands before breaks and after work.  
Use barrier skin cream.

**Respiratory protection** Not required under normal conditions.

**Thermal hazards** not applicable

**Delimitation and monitoring of the  
environmental exposition** See SECTION 6+7.

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## 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 [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing 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	not applicable

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See SECTION 10.3.

### 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.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Range [%]	Substance
50 - 60	Iron hydroxide oxide yellow, CAS: 51274-00-1
	LD50, oral, Rat: >2000 mg/kg (Lit.).
	LC50, inhalative, Rat: >195,7 mg/m <sup>3</sup> (6h) (Lit.).

**Serious eye damage/irritation** Non-irritant.

**Skin corrosion/irritation** Non-irritant.

**Respiratory or skin sensitisation** Non-sensitizing.

**Specific target organ toxicity — single exposure** not determined

**Specific target organ toxicity — repeated exposure** not determined

**Mutagenicity** There is no evidence of any mutagenic effects.

**Reproduction toxicity** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity** There is no evidence of any carcinogenic effects.

#### General remarks

No classification on the basis of the calculation procedure of the preparation directive.  
Toxicological data of complete product are not available.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

## SECTION 12: Ecological information

### 12.1 Toxicity

Range [%]	Substance
50 - 60	Iron hydroxide oxide yellow, CAS: 51274-00-1
	LC0, (96h), fish: >100 000 mg/l (Lit.).
	EC50, (48h), Daphnia magna: >100 mg/l (Lit.).

### 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 determined

### 12.3 Bioaccumulative potential

No information available.

### 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 Other adverse effects

No classification on the basis of the calculation procedure of the preparation directive.  
Ecological data of complete product are not available.  
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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## 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

See SECTION 14.2 in accordance with UN shipping name

### 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)

See SECTION 14.2 in accordance with UN shipping name

### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

### 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

EEC-REGULATIONS 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

TRANSPORT-REGULATIONS DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).  
CHIP 3/ CHIP 4

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**15.2 Chemical safety assessment**

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

**SECTION 16: Other informations****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  
 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  
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
 PBT = Persistent, Bioaccumulative and Toxic substance  
 PNEC = Predicted No-Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
 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 informations**

<b>Observe employment restrictions for people</b>	not applicable
<b>VOC (1999/13/CE)</b>	not applicable
<b>Customs Tariff</b>	28 21 10 000

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**Modified position**

SECTION 3 been added: Before the registration of iron hydroxide oxide yellow the following substance-identifiers have been used: CAS 20344-49-4 / EINECS 243-746-4

SECTION 5 been added: Full water jet

SECTION 5 been added: Use self-contained breathing apparatus.

SECTION 5 been added: Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6 been added: Do not discharge into the drains/surface waters/groundwater.

SECTION 8 been added: Not required under normal conditions.

SECTION 8 been added: Not required under normal conditions.

SECTION 10 deleted: Stable under normal ambient conditions (ambient temperature).

SECTION 10 been added: The product is stable under standard conditions.

SECTION 10 been added: Strong oxidizing agent.

SECTION 11 been added: There is no evidence of any mutagenic effects.

SECTION 11 been added: There is no evidence of any reproductive toxicity effects.

SECTION 11 been added: There is no evidence of any carcinogenic effects.

SECTION 11 been added: No classification on the basis of the calculation procedure of the preparation directive.

SECTION 11 been added: Toxicological data of complete product are not available.

SECTION 11 been added: The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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