

GEH Wasserchemie GmbH & Co. KG
49090 Osnabrück

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Version 07. Supersedes version: 06

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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
E-mail info@geh-wasserchemie.de

Address enquiries to

Technical information info@geh-wasserchemie.de

Safety Data Sheet 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 (GB) CLP]

No classification.

2.2 Label elements

The product does not require a hazard warning label in accordance with regulation CLP.

Hazard pictograms

Hazard 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

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3.2 Mixtures

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.
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	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	When in contact with the skin, clean with soap and water.
Eye contact	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.
Ingestion	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

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 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 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
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

Additional advice on system design	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m ³ particle inhalable; 3 mg/m ³ 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.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	Leather (EN 388). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin.
Respiratory protection	Not required under normal conditions.
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	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	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/cm³]	1,15
Relative density	not determined
Bulk density [kg/m³]	1115
Solubility in water	insoluble < 0,1 g/l
Solubility other solvents	not required
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	> 1000
Auto-ignition temperature	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 hazard classes as defined in Regulation (EC) No 1272/2008

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

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.

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

Skin corrosion/irritation

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.

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

Respiratory or skin sensitisation

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.

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

Specific target organ toxicity — single exposure

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.

Specific target organ toxicity — repeated exposure

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.

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

NOAEC, inhalative, Rat, 4,7 mg/m³ (subchronic), The effects observed are not sufficient for classification.

Mutagenicity 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.

Substance

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

in vitro, negativ

Reproduction toxicity 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.

Carcinogenicity 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.

Aspiration hazard Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.

General remarks

none

11.2 Information on other hazards

Endocrine disrupting properties Contains no ingredients with endocrine-disrupting properties.

Other information

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

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

not applicable

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

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* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID 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 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 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

- 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
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
IVIS = In vitro irritation score
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

Classification procedure

Modified position SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties.



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