

1.3

1.1

e-mail: info@rls-wacon.de Website: https://www.rls-wacon.de/

e-mail (competent person)

#### 1.4 **Emergency telephone number**

**Emergency information service** 

Telephone: +49 (0) 51 21 28 126 0

+49 (0) 551 19240 This number is only available during the following office hours: Mon - Sun 12:00 AM - 11:59 PM

info@rls-wacon.de (Produktsicherheit)

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
2.16	substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.2	skin corrosion/irritation	1	Skin Corr. 1	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16.

#### The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word danger

United Kingdom: en

Trade name **Indikator Fe HRS** 

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

Registration number (REACH)

Details of the supplier of the safety data sheet

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

Relevant identified uses

5Wacon

Replaces version of: 2020-11-05 (GHS 6)

**Product identifier** 

Version number: GHS 7.0

analytics GmbH

### not relevant (mixture)

Uses advised against

**RLS Wacon analytics GmbH** 

Gropiusstr. 12 31137 Hildesheim

Germany

### general use

Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.

according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**





according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Revision: 2021-05-10 Replaces version of: 2020-11-05 (GHS 6) - Pictograms GHS05 - Hazard statements H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H412 Harmful to aquatic life with long lasting effects. - Precautionary statements P260 Do not breathe dust/fume/gas/mist/vapours/spray. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or P303+P361+P353 shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor. P390 Absorb spillage to prevent material damage. P501 Dispose of contents/container to industrial combustion plant. - Supplemental hazard information

EUH208 Contains Ammonium mercaptoacetate. May produce an allergic reaction.

- Hazardous ingredients for labelling thioglycolic acid

#### 2.3 Other hazards

of no significance

#### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
1,10-phenanthroline	CAS No 5144-89-8	1-<5	Acute Tox. 3 / H301 Aquatic Acute 1 / H400	
	EC No 200-629-2		Aquatic Chronic 1 / H410	
	Index No 613-092-00-8			
thioglycolic acid	CAS No 68-11-1	1-<5	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331	
	EC No 200-677-4		Skin Corr. 1B / H314 Eye Dam. 1 / H318	• •
	Index No 607-090-00-6			
	REACH Reg. No 01-2119494933-24- xxxx			



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Ammonium mercaptoacet- ate	CAS No 5421-46-5 EC No 226-540-9 REACH Reg. No 01-2119531489-31- xxxx	<1	Met. Corr. 1 / H290 Acute Tox. 3 / H301 Skin Sens. 1 / H317	

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
1,10-phenanthroline	-	-	132 <sup>mg</sup> / <sub>kg</sub>	oral
thioglycolic acid	-	-	73 <sup>mg</sup> / <sub>kg</sub> 848 <sup>mg</sup> / <sub>kg</sub> 3 <sup>mg</sup> / <sub>l</sub> /4h 0.5 <sup>mg</sup> / <sub>l</sub> /4h	oral dermal inhalation: vapour inhalation: dust/mist
Ammonium mercaptoacet- ate	-	-	100 <sup>mg</sup> / <sub>kg</sub>	oral

For full text of abbreviations: see SECTION 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6)

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

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

Substance or mixture corrosive to metals.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

#### **SECTION 6: Accidental release measures**

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

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

Advice on how to contain a spill

Covering of drains

#### Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

#### Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6)

#### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation
- Use local and general ventilation. Use only in well-ventilated areas.

#### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

Control of effects

Protect against external exposure, such as

frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

#### 7.3 Specific end use(s)

See section 16 for a general overview.

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)									
Coun- try	Name of agent	CAS No	Identi- fier		TWA [mg/m³]	STEL [ppm]	Ceiling-C [ppm]		Source
GB	mercaptoacetic acid	68-11-1	WEL	1	3.8				EH40/ 2005

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
thioglycolic acid	68-11-1	DNEL	1.58 mg/m³	human, inhalatory	worker (industry)	chronic - systemic ef- fects
thioglycolic acid	68-11-1	DNEL	4.54 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic ef- fects
thioglycolic acid	68-11-1	DNEL	4.54 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects



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Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
thioglycolic acid	68-11-1	DNEL	2.24 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects
Ammonium mer- captoacetate	5421-46-5	DNEL	1.41 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic ef- fects
Ammonium mer- captoacetate	5421-46-5	DNEL	2.06 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects

Relevant PNECs o	Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time	
thioglycolic acid	68-11-1	PNEC	0.027 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single in- stance)	
thioglycolic acid	68-11-1	PNEC	0.003 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single in- stance)	
thioglycolic acid	68-11-1	PNEC	0.5 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)	
thioglycolic acid	68-11-1	PNEC	0.1 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single in- stance)	
thioglycolic acid	68-11-1	PNEC	0.01 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single in- stance)	
thioglycolic acid	68-11-1	PNEC	0.004 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single in- stance)	
Ammonium mer- captoacetate	5421-46-5	PNEC	38 <sup>µg</sup> /I	aquatic organisms	freshwater	short-term (single in- stance)	
Ammonium mer- captoacetate	5421-46-5	PNEC	3.8 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single in- stance)	
Ammonium mer- captoacetate	5421-46-5	PNEC	3.2 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)	

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leaktightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

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#### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state	liquid			
Colour	light yellow			
Odour	characteristic			
Melting point/freezing point	not determined			
Boiling point or initial boiling point and boiling range	100 °C at 1,013 mPa			
Flammability	non-combustible			
Lower and upper explosion limit	not determined			
Flash point	not determined			
Auto-ignition temperature	315 °C (auto-ignition temperature (liquids and gases))			
Decomposition temperature	not relevant			
pH (value)	5.3 (in aqueous solution: 10 <sup>g</sup> / <sub>l</sub> , 20 °C)			
Kinematic viscosity	not determined			
Solubility(ies)				
Water solubility	miscible in any proportion			

#### Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	not determined
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### **Indikator Fe HRS**

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#### Density and/or relative density

Density	not determined
Relative vapour density	information on this property is not available

	Particle characteristics	not relevant (liquid)		
9.2	Other information			
	Information with regard to physical hazard classes	there is no additional information		
	Other safety characteristics			
	Miscibility	Completely miscible with water.		
	Solvent content	93.99 %		
	Solid content	6.015 %		

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

#### 10.2 Chemical stability

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

#### 10.5 Incompatible materials

Oxidisers

#### **10.6 Hazardous decomposition products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

#### **SECTION 11: Toxicological information**

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6) Revision: 2021-05-10

#### Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed.

Acute toxicity estimate (ATE) of components of the mixture					
Name of substance CAS No Exposure route ATE					
1,10-phenanthroline	5144-89-8	oral	132 <sup>mg</sup> / <sub>kg</sub>		
thioglycolic acid	68-11-1	oral	73 <sup>mg</sup> / <sub>kg</sub>		
thioglycolic acid	68-11-1	dermal	848 <sup>mg</sup> / <sub>kg</sub>		
thioglycolic acid	68-11-1	inhalation: vapour	3 <sup>mg</sup> /ı/4h		
thioglycolic acid	68-11-1	inhalation: dust/mist	0.5 <sup>mg</sup> / <sub>ا</sub> /4h		
Ammonium mercaptoacetate	5421-46-5	oral	100 <sup>mg</sup> / <sub>kg</sub>		

#### Skin corrosion/irritation

Causes severe skin burns and eye damage.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitisation

Contains Ammonium mercaptoacetate. May produce an allergic reaction.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### 11.2 Information on other hazards

There is no additional information.



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### **Indikator Fe HRS**

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#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (chr	Aquatic toxicity (chronic) of components of the mixture					
Name of substance CAS No Endpoint Value Species Exposure time						
thioglycolic acid	68-11-1	EC50	530 <sup>mg</sup> / <sub>l</sub>	microorganisms	3 h	
Ammonium mercapto- acetate	5421-46-5	EC50	>1,000 <sup>mg</sup> / <sub>l</sub>	microorganisms	3 h	

#### 12.2 Persistence and degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture						
Name of substance	Name of substance CAS No BCF Log KOW BOD5/COD					
thioglycolic acid	68-11-1		-2.99 (pH value: 7, 22 °C)			
Ammonium mercaptoacetate	5421-46-5		-2.99 (pH value: 7, 22 °C)			

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Endocrine disrupting properties

Information on this property is not available.

#### 12.7 Other adverse effects

Data are not available.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Revision: 2021-05-10 Replaces version of: 2020-11-05 (GHS 6) **SECTION 14: Transport information** 14.1 UN number or ID number ADR/RID/ADN UN 1760 IMDG-Code UN 1760 ICAO-TI UN 1760 14.2 UN proper shipping name ADR/RID/ADN CORROSIVE LIQUID, N.O.S. IMDG-Code CORROSIVE LIQUID, N.O.S. ICAO-TI Corrosive liquid, n.o.s. Technical name (hazardous ingredients) thioglycolic acid, 1,10-phenanthroline 14.3 Transport hazard class(es) ADR/RID/ADN 8 IMDG-Code 8 ICAO-TI 8 14.4 Packing group ADR/RID/ADN III IMDG-Code III ICAO-TI III 14.5 Environmental hazards non-environmentally hazardous acc. to the dangerous goods regulations

#### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

#### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations					
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information					
Classification code	С9				
Danger label(s)	8				
Special provisions (SP)	274				
Excepted quantities (EQ)	E1				
Limited quantities (LQ)	5 L				
Transport category (TC)	3				
Tunnel restriction code (TRC)	E				
Hazard identification No	80				
Emergency Action Code	2X				



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### **Indikator Fe HRS**

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International Maritime Dangerous (	Goods Code (IMDG) - Additional information
Marine pollutant	-
Danger label(s)	8
Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-B
Stowage category	A
International Civil Aviation Organiza	ation (ICAO-IATA/DGR) - Additional information
Danger label(s)	8
Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 L

### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

int Directive
int Directive

VOC content	6.266 %			
Industrial Emissions Directive (IED)				
VOC content	1.392 %			

#### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### **SECTION 16: Other information**

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
1.3	Details of the supplier of the safety data sheet: RLS Wacon GmbH Gropiusstr. 12 31137 Hildesheim Germany Telephone: +49 (0) 51 21 28 126 0 e-mail: info@rls-wacon.de Website: https://www.rls-wacon.de/	Details of the supplier of the safety data sheet: RLS Wacon analytics GmbH Gropiusstr. 12 31137 Hildesheim Germany Telephone: +49 (0) 51 21 28 126 0 e-mail: info@rls-wacon.de Website: https://www.rls-wacon.de/	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-r evant
2.3	Other hazards	Other hazards: of no significance	yes
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.		yes
3.2		Description of the mixture: change in the listing (table)	yes
3.2		Description of the mixture: change in the listing (table)	yes
9.1	Appearance		yes
9.1	Other safety parameters		yes
9.1	Flammability (solid, gas): not relevant, (fluid)	Flammability: non-combustible	yes
9.1	Evaporation rate: not determined		yes
9.1		Decomposition temperature: not relevant	yes
9.1	pH (value): 5.3 (water: 10 <sup>g</sup> / <sub>l</sub> , 20 °C)	pH (value): 5.3 (in aqueous solution: 10 <sup>g</sup> / <sub>l</sub> , 20 °C)	yes
9.1		Kinematic viscosity: not determined	yes
9.1		Density and/or relative density	yes
9.1	Vapour density: this information is not available		yes
9.1	Viscosity: not determined		yes
9.1	Explosive properties: none		yes
9.1	Oxidising properties: none		yes
9.1		Particle characteristics: not relevant (liquid)	yes
9.2		Information with regard to physical hazard classes: there is no additional information	yes
9.2		Other safety characteristics	yes
9.2		Miscibility: Completely miscible with water.	yes
11.2		Information on other hazards: There is no additional information.	yes
12.6	Other adverse effects: Data are not available.	Endocrine disrupting properties: Information on this property is not available.	yes
14.1	UN number: 1760	UN number or ID number	yes
14.1		ADR/RID/ADN: UN 1760	yes



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-r evant
14.1		IMDG-Code: UN 1760	yes
14.1		ICAO-TI: UN 1760	yes
14.2	UN proper shipping name: CORROSIVE LIQUID, N.O.S.	UN proper shipping name	yes
14.2		ADR/RID/ADN: CORROSIVE LIQUID, N.O.S.	yes
14.2		IMDG-Code: CORROSIVE LIQUID, N.O.S.	yes
14.2		ICAO-TI: Corrosive liquid, n.o.s.	yes
14.3	Class: 8 (corrosive substances)		yes
14.3		ADR/RID/ADN: 8	yes
14.3		IMDG-Code: 8	yes
14.3		ICAO-TI: 8	yes
14.4	Packing group: III (substance presenting low danger)	Packing group	yes
14.4		ADR/RID/ADN: III	yes
14.4		IMDG-Code: III	yes
14.4		ICAO-TI: III	yes
14.7	UN number: 1760		yes
14.7	Proper shipping name: CORROSIVE LIQUID, N.O.S.		yes
14.7	Class: 8		yes
14.7	Packing group: III		yes
14.7	UN number: 1760		yes
14.7	Proper shipping name: CORROSIVE LIQUID, N.O.S.		yes
14.7	Class: 8		yes
14.7	Packing group: III		yes
14.7	UN number: 1760		yes



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Revision: 2021-05-10

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
14.7	Proper shipping name: Corrosive liquid, n.o.s.		yes
14.7	Class: 8		yes
14.7	Packing group: III		yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, la- belling and packaging of substances and mix- tures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.Transport of danger- ous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Danger- ous Goods Code (IMDG). Dangerous Goods Regu- lations (DGR) for the air transport (IATA).	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, la- belling and packaging of substances and mix- tures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.Transport of danger- ous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Danger- ous Goods Code (IMDG). Dangerous Goods Regu- lations (DGR) for the air transport (IATA).	yes

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Revision: 2021-05-10

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6)

Abbr.	Descriptions of used abbreviations
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
log KOW	n-Octanol/water
Met. Corr.	Substance or mixture corrosive to metals
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

#### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.



according to Regulation (EC) No. 1907/2006 (REACH)

### **Indikator Fe HRS**

Version number: GHS 7.0 Replaces version of: 2020-11-05 (GHS 6) Revision: 2021-05-10

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### **Classification procedure**

Physical and chemical properties: The classification is based on tested mixture. Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.