

**SAFETY DATA SHEET**  
According to (EG) No. 1907/2006 (REACH)



**Trade Name: HUMIRON FE LIQUID**

Printing date 07/01/2021

Last review 14.12.2020

## **1. IDENTIFICATION OF SUBSTANCE**

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### **Product details**

**Trade name:** HUMIRON FE LIQUID

**Article number:** 4 036964 003037

**Application of the substance / the preparation:** Intermediate

### **Manufacturer/Supplier:**

Humintech GmbH

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**Information:**

see: Section 16 (Contact)

**Emergency information:**

see: Manufacturer/Supplier

## **2. HAZARDS IDENTIFICATION**

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### **Classification of the mixture according to Regulation (EC) No. 1272/2008 [CLP]:**

The substance is not classified as dangerous to health and environment. It can cause eye, skin or respiratory tract irritation at sensitive persons.

### **Labelling according to Regulation (EC) No. 1272/2008 [CLP/GHS]:**



H315 + H319 Causes skin and eye irritation.

**Mixture:** This product is a mixture of potassium salt of humic acids, potassium hydroxide and Iron sulphate heptahydrate (s. chapter 3).

### **Other hazards:**

None

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**3. COMPOSITION/ DATA ON COMPONENTS**

**Chemical characterization:** Iron Humate  
**Chemical state:** Liquid  
**CAS No. Designation:** N/A  
**Identification number(s):** N/A  
**EINECS number:** N/A

**Dangerous components :**

Substance Name	CAS No.	EINECS No.	Classification according Regulation (EC) No. 1272 [CLP]	SCL and/or M-factor
Potassium salt of humic acids	68514-28-3	271-030-1	Skin Corr. 1A, 314 	
Potassium hydroxide (KOH)	1310-58-3	215-181-3	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318  	
Iron(II)-Sulfate-Heptahydrate (FeSO <sub>4</sub> ·7H <sub>2</sub> O)	7782-63-0	231-753-5	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319  Warning	Skin Irrit. 2, H315: C ≥ 25 %

**Additional information**

For the wording of the listed hazard phrases refer to section 16.

**4. FIRST AID MEASURES**

**General information:**

No special measures required.

**After inhalation:**

Seek medical treatment in case of complaints.

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**After skin contact:**

Instantly wash with water and soap and rinse thoroughly.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water. In case of persistent symptoms consult doctor.

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## 5. FIRE FIGHTING MEASURES

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**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**

Can be released in case of fire. Carbon monoxide (CO).

**Protective equipment:**

Put on breathing apparatus. Wear full protective suit.

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## 6. ACCIDENTIAL RELEASE MEASURES

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**Person-related safety precautions:**

Ensure adequate ventilation. Avoid causing dust.

**Measures for environmental protection.**

Avoid unnecessary environmental contamination.

**Measures for cleaning/ collecting:**

Collect mechanically.

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## 7. HANDLING AND STORAGE

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**Handling:**

**- Information for safe handling:**

Ensure good ventilation/ exhaustion at the workplace.

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**- Information about protection against explosions and fires:**

No special requirements.

**Storage:**

**- Requirements to be met by storerooms and containers:**

No special requirements.

**- Information about storage in one common storage facility:**

Not required.

**- Further information about storage conditions:**

Store in cool, dry conditions in well sealed containers.

**- Storage class:**

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## **8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

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**Additional information about design of technical systems:**

No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

1310-58-3 Potassium hydroxide

OEL: 2 mg/m<sup>3</sup>

**Personal protective equipment:**

**General protective and hygienic measures:**

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

**Breathing equipment:**

Not necessary if room is well-ventilated.

**Protection of hands:**

Protective gloves.

**Material of gloves:**

Synthetic gloves

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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**Eye protection:**

Safety glasses

**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**General information:**

Form: Liquid  
Colour: Dark brown  
Odour: Not distinguishable

**pH-value (in 20% solution) at 20°C:** 9.5 – 10.5 (ISO 8975)

**Change in physical state:** above 250°C destroyed to CO<sub>2</sub>, H<sub>2</sub>O and soot

Melting point/ Melting range: Not determined

Boiling point/ Boiling range: Not applicable

**Flash point:** Not determined

**Inflammability (solid, gaseous):** Product is not inflammable.

**Danger of explosion:** Dust can form explosive mixtures with air

**Ignition temperature:**

**Decomposition temperature:** > 100°C (DIN 53171)

**Mean Density at 20°C:** 1.2 kg/L

**Solubility in water at 20°C:** approx. 200 g/l

**Solubility in other solvents:** N/A

**10. STABILITY AND REACTIVITY**

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**Thermal decomposition/ Conditions to be avoided:**

No decomposition if used according to specifications.  
Avoid mixing with acidic materials - this ruins product.

**Dangerous reactions:**

No dangerous reactions known.

**Dangerous products of decomposition:**

No dangerous decomposition products known.

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## **11. TOXICOLOGICAL INFORMATION**

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The product can cause eye, skin or respiratory tract irritation at sensitive persons.

**Acute toxicity:**

<b>Acute oral toxicity (acc. EU B.1):</b>	LD <sub>50</sub> > 2000 mg/kg (rat)
<b>Acute dermal toxicity (acc. EU B.3):</b>	LD <sub>50</sub> > 2000 mg/kg (rat)
<b>Skin irritation (acc. EU B.4):</b>	No irritable effect on skin (rabbit)
<b>Eye irritation (acc. EU B.5):</b>	No irritable effect on eyes (rabbit)
<b>Sensitization (acc. EU B.42):</b>	Can have sensitizing effects
<b>Toxicity after repeated doses: (acc. EU B.7):</b>	28 day oral test (rat): NOAEL (No observed adverse effect level) 500 mg/kg/day
<b>carcinogenicity:</b>	No data available
<b>Mutagenity (acc. EU B.12/13/14; OECD 473):</b>	in vitro: ames test negative Chromosomal aberration test negative in vivo: micronucleus test negative
<b>Reproduction toxicity:</b>	No data available
<b>Further references:</b>	None

## **12. ECOLOGICAL INFORMATION**

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**Ecotoxicity:**

**Acute toxicity for fish (*Poecilia reticulata*) acc. EU C.1**

24 hours – LC <sub>50</sub> > 128 mg/L	24 hours – NOEC = 128 mg/L
48 hours – LC <sub>50</sub> > 128 mg/L	48 hours – NOEC = 128 mg/L
72 hours – LC <sub>50</sub> > 128 mg/L	72 hours – NOEC = 128 mg/L
96 hours – LC <sub>50</sub> > 128 mg/L	96 hours – NOEC = 128 mg/L

**Acute toxicity for dafnie (*Daphnia magna*) acc. EU C.2**

24 hours – LC <sub>50</sub> > 116 mg/L	24 hours – NOEC = 116 mg/L
48 hours – LC <sub>50</sub> > 116 mg/L	48 hours – NOEC = 116 mg/L

<b>Alga growth inhibition:</b>	No data available
<b>Act. sludge respiration inhibition (acc. EU C.11):</b>	EC <sub>50</sub> > 1000 mg/L

**Persistence and decomposition (acc. EU C.4-E and EU C.7):**

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The substance is not easily degradable biologically. 2% decomposition within 28 days. Abiotic decomposition - Hydrolysis as a pH function: under pH 4.7 and 9 (25°C) is the decomposition half time longer than 1 year.

**Bio-accumulating potential (acc. EU A.8):**

Coefficient of distribution:  $\log P_{OW} = -2.16 \pm 0.45$  (pH=9.1; 23°C); Bio-concentrating factor (BCF):  
No data available.

**Mobility in the soil:**

High amounts of the product can pollute ground and surface water. Therefore, it is necessary to take care of accurate handling to avoid the leakage of the concentrated product into ground and surface water.

**PBT and vPvB assessment results:**

No data available

**Other adverse effects:**

No data available

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## 13. DISPOSAL CONSIDERATIONS

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### 13.1 Product disposal:

**Recommendation:**

Remove according to local authority recommendations, e.g. convey to a suitable incinerator. Can be deposited with household garbage after consulting with the operator of the waste disposal facility and the pertinent authorities and under adherence to the necessary technical regulations.

**European waste catalogue:**

The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.

### 13.2 Uncleaned packaging:

**Recommendation:**

Disposal must be made according to official regulations.

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## 14. TRANSPORT INFORMATION

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**Land transport ADR/ RID and GGVS/ GGVE**

**ADR/ RID:**

is not a dangerous matter

**GGVS/ GGVE:**

is not a dangerous matter

**Inland waterway transport (AND/ ADR):**

is not a dangerous matter

**AND/ ADR:**

is not a dangerous matter

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## 15. REGULATORY INFORMATION

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### Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives/ Ordinance on Hazardous Materials (GefStoffV, GHS)

### Hazard designation of product:



(GHS7)

### Hazard phrases:

H325 + 320 Causes eye and skin irritation.

### Prevention precautionary phrases:

P305+351+338:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P313: Get medical advice/attention.

P280: Wear protective gloves/protective clothing/eye protection/face protection

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## 16. OTHER INFORMATION

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This data is based on our present knowledge. However, it shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Relevant H-phrases

These H-phrases refer to section 3: «Dangerous Components».

H290: May be corrosive to metals

H302: Harmful if swallowed

H314: Causes severe skin burns and eye damage

H315: Causes skin irritation

H318: Causes serious eye damage

H319: Causes serious eye irritation

### Department issuing data specification sheet:

Product Safety Department

### Contact:

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