

# SAFETY DATA SHEET



FERREX AQUA - All variants

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

### 1.1 Product identifier

**Product name** : FERREX AQUA - All variants

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

**Product use** : Paint.

### 1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

**e-mail address of person responsible for this SDS** : Prod-safe@teknos.com

#### National contact

Teknos (UK) Limited, 7 Longlands Rd, Bicester, Oxfordshire OX26 5AH, United Kingdom. Tel. +44 (0) 1869 208005.

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : NHS: 111

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to UK CLP/GHS

Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.

**Hazard statements** : H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** : P273 - Avoid release to the environment.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) and 2-Methyl-1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. Contains biocidal products for in-can preservation: BIT and DTBMA and MBIT.

## SECTION 2: Hazards identification

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Propylene glycol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≤5	Not classified.	[2]
Trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤1.9	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
Zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.5	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
magnesium carbonate	EC: 208-915-9 CAS: 546-93-0	≤1	Not classified.	[2]
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≤0.3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
Silicic acid, calcium salt	EC: 215-710-8 CAS: 1344-95-2	≤0.3	Not classified.	[2]
Dipropyleneglycolmethylether	REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8	≤0.3	Not classified.	[2]
2-aminoethanol	EC: 205-483-3 CAS: 141-43-5 Index: 603-030-00-8	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	[1] [2]
molybdenum trioxide	REACH #: 01-2119488038-30 EC: 215-204-7 CAS: 1313-27-5 Index: 042-001-00-9	≤0.1	Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335	[1] [2]
Diethylene glycol	REACH #: 01-2119457857-21 EC: 203-872-2 CAS: 111-46-6	≤0.1	Acute Tox. 4, H302	[1] [2]

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FERREX AQUA - All variants

**Label No** : 109475

## SECTION 3: Composition/information on ingredients

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

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

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
phosphorus oxides  
metal oxide/oxides

## SECTION 5: Firefighting measures

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

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

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

### 6.4 Reference to other sections

- : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

## SECTION 7: Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Propylene glycol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> TWA 8 hours: 474 mg/m <sup>3</sup> . Form: total vapour and particulates. TWA 8 hours: 150 ppm. Form: total vapour and particulates. TWA 8 hours: 10 mg/m <sup>3</sup> . Form: Particulate.
magnesium carbonate	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> TWA 8 hours: 10 mg/m <sup>3</sup> . Form: inhalable dust. TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable dust.
acetone	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> STEL 15 minutes: 3620 mg/m <sup>3</sup> . STEL 15 minutes: 1500 ppm. TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m <sup>3</sup> .
Silicic acid, calcium salt	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> TWA 8 hours: 10 mg/m <sup>3</sup> . Form: inhalable dust. TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable dust.
Dipropyleneglycolmethylether	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin. TWA 8 hours: 308 mg/m <sup>3</sup> . TWA 8 hours: 50 ppm.
2-aminoethanol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin. STEL 15 minutes: 7.6 mg/m <sup>3</sup> . STEL 15 minutes: 3 ppm. TWA 8 hours: 1 ppm. TWA 8 hours: 2.5 mg/m <sup>3</sup> .
molybdenum trioxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [molybdenum insoluble compounds]</b> STEL 15 minutes: 20 mg/m <sup>3</sup> (as Mo). TWA 8 hours: 10 mg/m <sup>3</sup> (as Mo).
Diethylene glycol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> TWA 8 hours: 101 mg/m <sup>3</sup> . TWA 8 hours: 23 ppm.

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Result
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## SECTION 8: Exposure controls/personal protection

Propylene glycol

**DNEL - General population - Long term - Inhalation**

10 mg/m<sup>3</sup>

Effects: Local

**DNEL - Workers - Long term - Inhalation**

10 mg/m<sup>3</sup>

Effects: Local

**DNEL - General population - Long term - Inhalation**

50 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

168 mg/m<sup>3</sup>

Effects: Systemic

magnesium carbonate

**DNEL - General population - Short term - Oral**

7.23 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Oral**

7.23 mg/kg bw/day

Effects: Systemic

acetone

**DNEL - General population - Long term - Oral**

62 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Dermal**

62 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

186 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

200 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

1210 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Short term - Inhalation**

2420 mg/m<sup>3</sup>

Effects: Local

Silicic acid, calcium salt

**DNEL - General population - Long term - Inhalation**

0.05 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

0.05 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Long term - Inhalation**

4 mg/m<sup>3</sup>

Effects: Local

**DNEL - General population - Long term - Inhalation**

5 mg/m<sup>3</sup>

Effects: Local

**DNEL - General population - Long term - Oral**

25 mg/kg bw/day

## SECTION 8: Exposure controls/personal protection

Dipropyleneglycolmethylether	<u>Effects</u> : Systemic	
	<b>DNEL - General population - Long term - Oral</b> 36 mg/kg bw/day <u>Effects</u> : Systemic	
	<b>DNEL - General population - Long term - Inhalation</b> 37.2 mg/m <sup>3</sup> <u>Effects</u> : Systemic	
	<b>DNEL - General population - Long term - Dermal</b> 121 mg/kg bw/day <u>Effects</u> : Systemic	
	<b>DNEL - Workers - Long term - Dermal</b> 283 mg/kg bw/day <u>Effects</u> : Systemic	
	<b>DNEL - Workers - Long term - Inhalation</b> 308 mg/m <sup>3</sup> <u>Effects</u> : Systemic	
	2-aminoethanol	<b>DNEL - General population - Long term - Inhalation</b> 0.18 mg/m <sup>3</sup> <u>Effects</u> : Systemic
		<b>DNEL - General population - Long term - Inhalation</b> 0.28 mg/m <sup>3</sup> <u>Effects</u> : Local
		<b>DNEL - Workers - Long term - Inhalation</b> 0.51 mg/m <sup>3</sup> <u>Effects</u> : Local
		<b>DNEL - Workers - Long term - Inhalation</b> 1 mg/m <sup>3</sup> <u>Effects</u> : Systemic
		<b>DNEL - General population - Long term - Oral</b> 1.5 mg/kg bw/day <u>Effects</u> : Systemic
		<b>DNEL - General population - Long term - Dermal</b> 1.5 mg/kg bw/day <u>Effects</u> : Systemic
molybdenum trioxide	<b>DNEL - Workers - Long term - Dermal</b> 3 mg/kg bw/day <u>Effects</u> : Systemic	
	<b>DNEL - General population - Long term - Inhalation</b> 2 mg/m <sup>3</sup> <u>Effects</u> : Local	
	<b>DNEL - Workers - Long term - Inhalation</b> 3 mg/m <sup>3</sup> <u>Effects</u> : Local	
	<b>DNEL - General population - Long term - Inhalation</b> 5 mg/m <sup>3</sup> <u>Effects</u> : Systemic	
	<b>DNEL - General population - Long term - Oral</b> 5.1 mg/kg bw/day <u>Effects</u> : Systemic	

## SECTION 8: Exposure controls/personal protection

Diethylene glycol	<b>DNEL - Workers - Long term - Inhalation</b> 16.76 mg/m <sup>3</sup> <u>Effects</u> : Systemic
	<b>DNEL - Workers - Long term - Inhalation</b> 44 mg/m <sup>3</sup> <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Inhalation</b> 12 mg/m <sup>3</sup> <u>Effects</u> : Local
	<b>DNEL - General population - Long term - Inhalation</b> 12 mg/m <sup>3</sup> <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Dermal</b> 21 mg/kg bw/day <u>Effects</u> : Systemic
	<b>DNEL - Workers - Long term - Dermal</b> 43 mg/kg bw/day <u>Effects</u> : Systemic
	<b>DNEL - Workers - Long term - Inhalation</b> 60 mg/m <sup>3</sup> <u>Effects</u> : Local

### PNECs

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations : Wear suitable gloves tested to EN374.

> 8 hours (breakthrough time): Nitrile gloves. thickness > 0.3 mm

Not recommended polyvinyl alcohol (PVA) gloves

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.



## SECTION 8: Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.  
Filter type (spray application): A P
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Slight
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** :

Ingredient name	°C	°F	Method
water	100	212	
Propylene glycol	188.2	370.8	

- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Lower: 2.6% (propane-1,2-diol)  
Upper: 12.6% (propane-1,2-diol)
- Flash point** :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Propylene glycol	99	210.2				

- Auto-ignition temperature** :

Ingredient name	°C	°F	Method
Propylene glycol	371	699.8	

- Decomposition temperature** : Not available.
- pH** : 7.3 to 8.6
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.
- Solubility(ies)** :  
Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** :

## SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3				
Propylene glycol	0.15	0.02	EU A.4			

<b>Relative density</b>	: Not available.
<b>Density</b>	: 1.3 g/cm <sup>3</sup>
<b>Vapour density</b>	: Not available.
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.
<b><u>Particle characteristics</u></b>	
<b>Median particle size</b>	: Not applicable.

### 9.2 Other information

Not available.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: No specific data.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result
Propylene glycol	<b>Rat - Oral - LD50</b> 20 g/kg  <b>Rabbit - Dermal - LD50</b> 20800 mg/kg
magnesium carbonate	<b>Rat - Oral - LD50</b> 8000 mg/kg
acetone	<b>Rat - Oral - LD50</b> 5800 mg/kg <u>Toxic effects:</u> Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor
2-aminoethanol	<b>Rat - Oral - LD50</b> 1720 mg/kg
molybdenum trioxide	<b>Rat - Oral - LD50</b> 188 mg/kg
Diethylene glycol	<b>Rabbit - Dermal - LD50</b> 11890 mg/kg

## SECTION 11: Toxicological information

### Rat - Oral - LD50

12000 mg/kg

Toxic effects: Brain and Coverings - Other degenerative changes Liver - Other changes Kidney, Ureter, and Bladder - Other changes

**Conclusion/Summary [Product]** : Not available.

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Propylene glycol	20000	20800	N/A	N/A	N/A
magnesium carbonate	8000	N/A	N/A	N/A	N/A
acetone	5800	N/A	N/A	N/A	N/A
2-aminoethanol	1720	1100	N/A	11	N/A
Diethylene glycol	500	11890	N/A	N/A	N/A

### Skin corrosion/irritation

#### Product/ingredient name

Propylene glycol

#### Result

**Child - Skin - Moderate irritant**

Duration of treatment/exposure: 96 hours

Amount/concentration applied: 30 % C

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 168 hours

Amount/concentration applied: 500 mg

**Human - Skin - Moderate irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 104 mg l

**Woman - Skin - Mild irritant**

Duration of treatment/exposure: 96 hours

Amount/concentration applied: 30 %

Zinc oxide

**Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

acetone

**Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 395 mg

Dipropyleneglycolmethylether

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

2-aminoethanol

**Rabbit - Skin - Moderate irritant**

Amount/concentration applied: 505 mg

Diethylene glycol

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 112 mg l

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

## SECTION 11: Toxicological information

**Conclusion/Summary [Product]** : Not available.

### Serious eye damage/eye irritation

#### **Product/ingredient name**

Propylene glycol

#### **Result**

**Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Eyes - Mild irritant**

Amount/concentration applied: 100 mg

Zinc oxide

**Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

acetone

**Human - Eyes - Mild irritant**

Amount/concentration applied: 186300 ppm

**Rabbit - Eyes - Mild irritant**

Amount/concentration applied: 10 uL

**Rabbit - Eyes - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

**Rabbit - Eyes - Severe irritant**

Amount/concentration applied: 20 mg

Dipropyleneglycolmethylether

**Human - Eyes - Mild irritant**

Amount/concentration applied: 8 mg

**Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

2-aminoethanol

**Rabbit - Eyes - Severe irritant**

Amount/concentration applied: 250 ug

Diethylene glycol

**Rabbit - Eyes - Mild irritant**

Amount/concentration applied: 50 mg

**Conclusion/Summary [Product]** : Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

### Respiratory or skin sensitization

Not available.

### **Skin**

**Conclusion/Summary [Product]** : Not available.

### **Respiratory**

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

Not available.

## SECTION 11: Toxicological information

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

<b>Product/ingredient name</b>	<b>Result</b>
acetone	STOT SE 3, H336 (Narcotic effects)
2-aminoethanol	STOT SE 3, H335 (Respiratory tract irritation)
molybdenum trioxide	STOT SE 3, H335 (Respiratory tract irritation)

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

Not available.

### Potential acute health effects

<b>Eye contact</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: No specific data.
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: No specific data.
<b>Ingestion</b>	: No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### **Short term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### **Long term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : Not available.

## SECTION 11: Toxicological information

<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: No known significant effects or critical hazards.

### Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product/ingredient name

Propylene glycol

#### Result

##### Acute - LC50 - Fresh water

EU

Fish - Trout - *Oncorhynchus mykiss*

40613 mg/l [96 hours]

##### Acute - EC50 - Fresh water

EU

Algae - Algae

19300 mg/l [96 hours]

##### Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia*

Age: <24 hours

18340000 µg/l [48 hours]

Effect: Mortality

Trizinc bis(orthophosphate)

##### Acute - EC50

Crustaceans - *Ceriodaphnia dubia*

0.96 mg/l [48 hours]

##### Acute - EC50

Algae - *Selenastrum capricornutum*

0.32 mg/l [72 hours]

Zinc oxide

##### Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: <24 hours

98 µg/l [48 hours]

Effect: Mortality

##### Acute - IC50 - Fresh water

Algae - Green algae - *Pseudokirchneriella subcapitata* -

Exponential growth phase

46 µg/l [72 hours]

Effect: Population

##### Acute - LC50 - Fresh water

US EPA

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

Weight: 0.78 g

1.1 ppm [96 hours]

Effect: Mortality

acetone

##### Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

10000 µg/l [48 hours]

Effect: Mortality

##### Acute - LC50 - Fresh water

Fish - Guppy - *Poecilia reticulata*

Age: 4 to 12 months; Size: 2 to 10 cm

## SECTION 12: Ecological information

5600 ppm [96 hours]

Effect: Mortality

### Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*

4.95 mg/l [96 hours]

Effect: Reproduction

### Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

20.565 mg/l [96 hours]

Effect: Reproduction

### Chronic - NOEC - Fresh water

Crustaceans - Daphnia - *Daphniidae*

0.016 ml/l [21 days]

Effect: Population

### Chronic - NOEC - Marine water

Fish - Threespine stickleback - *Gasterosteus aculeatus* -

Larvae

Age: 7 days

5 µg/l [42 days]

Effect: Growth

2-aminoethanol

### Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* - Adult

>100000 µg/l [48 hours]

Effect: Mortality

### Acute - EC50 - Fresh water

ISO

Algae - Green algae - *Desmodesmus subspicatus*

8.42 mg/l [72 hours]

Effect: Population

### Acute - LC50 - Fresh water

Fish - Goldfish - *Carassius auratus*

Size: 6.2 cm; Weight: 3.3 g

170 mg/l [96 hours]

Effect: Mortality

Diethylene glycol

### Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 34 days; Size: 19.1 mm; Weight: 0.102 g

75200000 µg/l [96 hours]

Effect: Mortality

**Conclusion/Summary [Product]** : Not available.

### 12.2 Persistence and degradability

Not available.

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Propylene glycol	-	-	Readily

### 12.3 Bioaccumulative potential

**Date of issue/Date of revision** : 28/02/2025 **Date of previous issue** : No previous validation **Version** : 1 **15/20**

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## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Propylene glycol	-1.07	-	Low
Trizinc bis(orthophosphate)	-	60960	High
Zinc oxide	-	28960	High
acetone	-0.23	-	Low
Dipropyleneglycolmethylether	0.004	-	Low
2-aminoethanol	-1.31	-	Low
Diethylene glycol	-1.98	100	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Propylene glycol	No	No	No	No	No	No	No
Trizinc bis(orthophosphate)	No	No	No	No	No	No	No
Zinc oxide	No	No	No	No	No	No	No
magnesium carbonate	No	No	No	No	No	No	No
acetone	No	No	No	Yes	No	No	No
Silicic acid, calcium salt	No	No	No	No	No	No	No
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
2-aminoethanol	No	No	No	No	No	No	No
molybdenum trioxide	No	No	No	No	No	No	No
Diethylene glycol	No	No	No	No	No	No	No

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**European waste catalogue (EWC)** : 080111\*, 200127\*

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.



## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not relevant/applicable due to nature of the product.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/REACH

#### Annex XIV - List of substances subject to authorisation

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

##### Ozone depleting substances

Not listed.

##### Prior Informed Consent (PIC)

Not listed.

##### Persistent Organic Pollutants

Not listed.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
FERREX AQUA	≥90	3

##### Seveso Directive

This product is not controlled under the Seveso Directive.

##### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

## SECTION 15: Regulatory information

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = GB CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
SGG = Segregation Group  
vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

### Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

### Full text of classifications

## SECTION 16: Other information

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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**Date of previous issue** : No previous validation

**Version** : 1

FERREX AQUA

All variants

### Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

