

**FennoFix 513**

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information****Product name**  
**FennoFix 513****Recommended use of the chemical and restrictions on use****Use of the Substance/Mixture**

Flocculating and fixing agent.

**Recommended restrictions on use**

-

**Supplier's details**Kemira Chemicals, Inc.  
1000 Parkwood Circle, Suite 500  
30339 Atlanta USA  
Telephone+17704361542, Telefax. +17704363432HEAD OFFICE  
Kemira Oyj  
P.O. Box 330  
00101 HELSINKI  
FINLAND  
Telephone +358108611 Telefax +358108621124**Emergency telephone number**

CHEMTREC: 1-800-424-9300

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**

The material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard's (29CFR 1910.1200) implementation of the Globally Harmonized System (GHS), i.e., material is not a dangerous substance or mixture requiring GHS classification according to the US GHS regulations.

FennoFix 513

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

;

### GHS-Labeling

Product is not hazardous under US GHS.

### Other hazards which do not result in classification

**Advice;** Contaminated surfaces will be extremely slippery.

**Potential environmental effects;** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substances /Mixtures

Chemical nature

Aqueous solution of Polymeric Quaternary Amine.

**No hazardous ingredients**

### Further information

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

## 4. FIRST AID MEASURES

### Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.

#### Inhalation

Move to fresh air. No hazards which require special first aid measures.

#### Skin contact

Wash off immediately with soap and plenty of water.

#### Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

#### Ingestion

No hazards which require special first aid measures.

**Most important symptoms and effects, both acute and delayed****5. FIREFIGHTING MEASURES****Suitable extinguishing media**

Water mist

Carbon dioxide (CO<sub>2</sub>)

Dry chemical

**Special hazards arising from the substance or mixture**

Heating can release hazardous gases.

Nitrogen oxides (NO<sub>x</sub>), Carbon oxides (CO<sub>x</sub>), hydrogen chloride (HCl)

**Special protective actions for fire-fighters**

In the event of fire, wear self-contained breathing apparatus.

**Further information**

In the event of fire, cool tanks with water spray.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. For personal protection see SDS section 8. Material can create slippery conditions.

**Environmental precautions**

Should not be released into the environment.

**Methods and materials for containment and cleaning up**

Spills are very slippery. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Remove residues by scrubbing. Prevent product from entering drains.

**Additional advice**

If the product contaminates rivers and lakes or drains inform respective authorities. Contaminated surfaces will be extremely slippery.

**7. HANDLING AND STORAGE****Precautions for safe handling**

FennoFix 513

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

Handle in accordance with good industrial hygiene and safety practice.  
For personal protection see SDS section 8.

**Conditions for safe storage, including any incompatibilities**

Store at room temperature. Do not freeze. The product may stratify.

Materials to avoid:

Strong oxidizing agents, Strong acids, Iron, Copper, Aluminium

Storage stability:

Storage period 24 Months

Storage temperature 32 - 95 °F

Other data Stable under recommended storage conditions.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Form of exposure	Control parameters	Update	Basis
------------	---------	-------	------------------	--------------------	--------	-------

Contains no substances with occupational exposure limit values.

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Wash hands and face before breaks and immediately after handling the product. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection**

None under normal use.

**Hand protection**

Glove material: Impervious gloves, Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

**Skin and body protection**

Protective clothing.

FennoFix 513

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

### Eye protection

Safety goggles

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid, viscous
<b>Colour</b>	colourless, amber
<b>Odour</b>	amine-like
<b>Melting point/range</b>	Melting point/range -0.4 °F
<b>Initial boiling point and boiling range</b>	Boiling point/boiling range ca. 212 °F
<b>Flash point</b>	> 199.4 °F (closed cup)
<b>Explosive properties:</b>	
<b>Upper explosion limit</b>	No data available
<b>Density</b>	1,030 - 1,050 kg/m <sup>3</sup>
<b>Solubility(ies):</b>	
<b>Water solubility</b>	completely soluble
<b>Oxidizing potential</b>	The substance or mixture is not classified as oxidizing.
<b>Surface tension</b>	not determined

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable

### Possibility of hazardous reactions

Hazardous reactions:                      Hazardous polymerisation does not occur.

### FennoFix 513

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

#### Conditions to avoid

Conditions to avoid: Stable under normal conditions.

#### Incompatible materials

Materials to avoid: Strong oxidizing agents  
Strong acids  
Iron  
Copper  
Aluminium

#### Hazardous decomposition products

Hazardous decomposition products: Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide  
Ammonia  
Nitrogen oxides (NO<sub>x</sub>)  
hydrogen chloride (HCl)

## 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

<b>Acute oral toxicity</b>	Remarks: estimated /Rat/10,000 mg/kg/LD50
<b>Acute inhalation toxicity</b>	LC50/Rat/4 h/>/20 mg/lRemarks: estimated
<b>Acute dermal toxicity</b>	LD50/Rabbit/> /10,000 mg/kg  Remarks: estimated
<b>Skin corrosion/irritation</b>	Conclusion: No skin irritation
<b>Serious eye damage/eye irritation</b>	Conclusion: No eye irritation
<b>Respiratory or skin sensitisation</b>	
<b>Skin sensitisation</b>	Conclusion: Not sensitizing.

#### Germ cell mutagenicity

---

<b>Genotoxicity in vivo</b>	Conclusion: No data available
<b>Carcinogenicity</b>	
<b>Carcinogenicity</b>	Remarks: No information available.
<b>Reproductive toxicity</b>	
<b>Toxicity for reproduction</b>	Reproductive effects/Rat Remarks: No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

#### Aquatic toxicity

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

LC50/96 h/Branchydanio rerio (zebra fish)/OECD Test Guideline 203: 10 - 100 mg/l

Remarks: fresh water

EC50/48 h/Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: > 10 - 100 mg/l

IC50/72 h/Pseudokirchneriella subcapitata (green algae)/Growth inhibition/OECD Test Guideline 201: > 10 - 100 mg/l

#### Toxicity to other organisms

No data available

#### Persistence and degradability

Biological degradability:

Modified Sturm Test/OECD Test Guideline 301B/28 d: < 70 %

Not readily biodegradable.

#### Bioaccumulative potential

No data available

#### Mobility in soil

Water solubility: completely soluble

Surface tension: not determined

#### Other adverse effects

No data available

**FennoFix 513**

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

**13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	Where possible recycling is preferred to disposal or incineration. In accordance with local and national regulations. EPA Hazardous Waste - NO.
<b>Contaminated packaging</b>	Must be disposed of in accordance with local and national regulations.

**14. TRANSPORT INFORMATION****Land transport**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport**

Not classified as dangerous in the meaning of transport regulations.

**Air transport**

Not classified as dangerous in the meaning of transport regulations.

**Special precautions for user****15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Title III Section 311 Categories**

**Immediate (Acute) Health Effects: No;**  
**Delayed (Chronic) Health Effects: No;**  
**Fire Hazard: No;**  
**Sudden Release Of Pressure Hazard: No;**  
**Reactivity Hazard: No;**

**SARA 302 Extremely Hazardous Substances**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.  
None Present ()

**SARA 313 - Specific Toxic Chemical Listings**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.  
None Present ()



FennoFix 513

Ref. /US/EN

Revision Date: 12/03/2016

Previous date: 08/02/2016

Print Date:04/12/2017

### CERCLA Hazardous substance (Reportable Quantities)

None Present ()

0 kg

### California Proposition 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

None Present ()

**Other regulations** : None.

### Notification status

- :
- : All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.
- : All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).
- : All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
- : All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).
- : All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
- : All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
- : All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
- : All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
- : All components of this product are included in the New Zealand

inventory (NZIoC) or are not required to be listed on the New Zealand inventory(NZIoC).

: This product's Taiwan Toxic Chemical Substances Control Act Inventory status has NOT been determined.

## 16. OTHER INFORMATION

### HMIS Rating

Health: 0

Flammability: 0

Reactivity: 0

### NFPA Rating

Health: 0

Fire: 1

Reactivity: 0

### Training advice

Read the safety data sheet before using the product.

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

### Sources of key data used to compile the Safety Data Sheet

Regulations, databases, literature, own tests.

### Additions, Deletions, Revisions

Relevant changes have been marked with vertical lines.