

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 11/06/2017

Previous date: 06/17/2015

Print Date:01/20/2020

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product information****Product name**
KEMIRA PIX-311**Recommended use of the chemical and restrictions on use****Use of the Substance/Mixture**

Water treatment chemical

Recommended restrictions on use

There are no uses advised against.

Supplier's detailsKemira Water Solutions, 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
CANUTEC: 1-613-996-6666**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**Corrosive to metals; Category 1; May be corrosive to metals.;
Acute toxicity (Oral); Category 4; Harmful if swallowed.;
Skin irritation; Category 2; Causes severe skin burns and eye damage.;
Serious eye damage; Category 1; Causes serious eye damage.;

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GHS-Labeling

Hazard pictograms



Signal word

: Danger

Hazard statements

: **Hazard statements:**

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements

: **Prevention:**

P234 Keep only in original container.
P264 Wash face, hands and any exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
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.

Storage:

P406 Store in corrosive resistant container with a

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Disposal:
P501

resistant inner liner.

Dispose of contents/container as special waste in compliance with local and national regulations.

Hazardous components which must be listed on the label:

- 7705-08-0 Iron trichloride
- 7647-01-0 Hydrochloric acid

Other hazards which do not result in classification

Advice; Causes eye and skin irritation.

Inhalation; May cause respiratory tract irritation.

Skin; Causes severe skin irritation.

Eyes; Causes severe eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances /Mixtures

Hazardous components

Chemical name	CAS-No.	Concentration[%]
Iron trichloride	7705-08-0	35 - 45 %
Hydrochloric acid	7647-01-0	1 - 2 %

Further information

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

This product contains WHMIS regulated (hazardous) components.

4. FIRST AID MEASURES

Description of first aid measures**General advice**

Show this safety data sheet to the doctor in attendance.

Inhalation

Rinse mouth and nose with water. Move to fresh air.

Call a physician if symptoms occur.

Skin contact

Take off contaminated clothing and shoes immediately. Rinse with plenty of water. Obtain medical attention.

Eye contact

Important! Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If possible use lukewarm water. Consult a physician.

Ingestion

Do NOT induce vomiting. Rinse mouth with water. Drink 1 or 2 glasses of water or milk. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms and effects, both acute and delayed

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Not combustible.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No special requirements.

Special hazards arising from the substance or mixture

Heating above the decomposition temperature can cause formation of hydrogen chloride.

Special protective actions for fire-fighters

Exposure to decomposition products may be a hazard to health. In the event of fire, wear self-contained breathing apparatus.

Use NIOSH/MSHA approved respiratory protection.

Further information

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

Environmental precautions

Prevent product from entering the environment.

Restrict the spread of the spillage by using inert absorbent material (sand, gravel). Cover the drains. Must be disposed of in accordance with local and national regulations.

Methods and materials for containment and cleaning up

Clean-up methods - small spillage

Dilute residues with water and then neutralize with lime or limestone powder to a solid consistency. Shovel or sweep up. Must be disposed of in accordance with local and national regulations.

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Clean-up methods - large spillage

Dilute residues with water and then neutralize with lime or limestone powder to a solid consistency. Shovel or sweep up remaining material. Must be disposed of in accordance with local and national regulations.

Additional advice

Inform the rescue service in case of entry into waterways, soil or drains.

7. HANDLING AND STORAGE

Precautions for safe handling

Danger for slipping. For personal protection see section 8. The work place and work methods shall be organized in such a way that direct contact with the product is prevented or minimized. Handle and open container with care.

Conditions for safe storage, including any incompatibilities

Avoid high temperatures. Avoid freezing.

Materials for packaging

Suitable material: plastic (PE, PP, PVC), polyester with fibreglass reinforcement, rubber-coated steel, titanium

Materials to avoid:

Metals, Bases

Stainless steel, leather, non-acid proof metals (for example aluminium, copper and iron), Reaction with some metals may evolve flammable hydrogen gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Form of exposure	Control parameters	Update	Basis
Hydrochloric acid	7647-01-0	C		2 ppm	2007-01-01	ACGIH
		C		5 ppm 7 mg/m ³	2013-10-08	NIOSH REL
		C		5 ppm 7 mg/m ³	2006-02-28	OSHA Z-1
		C		5 ppm 7 mg/m ³	1989-01-19	OSHA P0
Iron trichloride	7705-08-0	TWA		1 mg/m ³	2013-03-01	ACGIH
		TWA		1 mg/m ³	1989-01-19	OSHA P0
		TWA		1 mg/m ³	2013-10-08	NIOSH REL

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

Eye wash bottle or emergency eye-wash fountain must be found in the work place.

Individual protection measures, such as personal protective equipment
Respiratory protection

Respiratory protection is not required under normal handling conditions. If aerosols or mist are formed, eg. when cleaning containers with a high pressure washer, use half mask with filter B2.

Hand protection

Glove material: Rubber or plastic gloves, 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

Wear protective clothing if necessary. Use rubber boots.

Eye protection

Tightly fitting safety goggles. Eye wash bottle with pure water

Environmental exposure controls

No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid,
Colour	dark brown
Odour	slightly acidic
pH	< 1
Initial boiling point and boiling range	Boiling point/boiling range 100 - 105 °C
Flash point	Not applicable
Density	1.41 - 1.44 g/cm ³
Solubility(ies):	
Water solubility	(20 °C) completely soluble, At dilution to less than 1% of FeCl ₃ , precipitation of iron hydroxide occurs.
Partition coefficient: n-octanol/water	Not applicable, inorganic compound
Volatile organic content (VOC)	Not applicable
Surface tension	No data available

10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Possibility of hazardous reactions

Hazardous reactions: Bases cause exothermic reactions.

Conditions to avoid

Conditions to avoid: Avoid freezing.
Avoid storage at high temperatures.

Incompatible materials

Materials to avoid:

Metals
Bases

Stainless steel
leather
non-acid proof metals (for example aluminium, copper and iron)
Reaction with some metals may evolve flammable hydrogen gas.

Hazardous decomposition products

Hazardous decomposition products: Heating above the decomposition temperature can cause formation of hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute oral toxicity

Iron trichloride:

/OECD Test Guideline 423Remarks: Calculated as Fe
/Rat/220 mg/kg/LD50

Acute dermal toxicity	<p>Iron trichloride: LD50/Rat/> /2,564 mg/kg/OECD Test Guideline 402 Remarks: Read-across (Analogy), CAS-No., 7758-94-3</p> <p>Iron trichloride: LD50/Rat/> /881 mg/kg/OECD Test Guideline 402 Remarks: Calculated as Fe</p>
Skin corrosion/irritation	Conclusion: Corrosive
Skin corrosion/irritation	<p>Iron trichloride: Rabbit Result: irritating /OECD Test Guideline 404Remarks: Read-across (Analogy), CAS-No., 7758-94-3</p>
Serious eye damage/eye irritation	Conclusion: Corrosive to the eyes.
Serious eye damage/eye irritation	<p>Iron trichloride: Rabbit Result: Corrosive /OECD Test Guideline 405 Remarks: Read-across (Analogy), CAS-No., 7758-94-3</p>
Respiratory or skin sensitisation	
Skin sensitisation	Conclusion: Not sensitizing.
Skin sensitisation	<p>Iron trichloride:</p> <p>Conclusion: According to experience sensitization is not expected.</p>
Carcinogenicity	
Carcinogenicity	<p>Iron trichloride:</p> <p>Not believed to be a carcinogen.</p>
Reproductive toxicity	
Toxicity for reproduction	<p>Iron trichloride:</p> <p>Conclusion: Not believed to be toxic for reproduction.</p>

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

Iron trichloride:

LC50/96 h/Lepomis macrochirus (Bluegill sunfish): 59 mg/l

Remarks: hydrated substance

NOEC/96 h/Lepomis macrochirus (Bluegill sunfish): > 1 mg/l

Remarks: hydrated substance

EC50/48 h/Daphnia magna (Water flea): 27 mg/l

NOEC/21 d/Daphnia magna (Water flea): > 1 mg/l

EC50/15 d/algae/rate of growth: 58 mg/l

Remarks: Test is not appropriate due to the flocculating characteristics of the product.,The compound is considered to have no long term effects in aquatic systems due to the rapid formation of insoluble hydroxides.

Toxicity to other organisms

Iron trichloride:

Remarks: No data available

Persistence and degradability

Biological degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

Biological degradability:

Iron trichloride:

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Partition coefficient: n-octanol/water: Not applicable, inorganic compound

Iron trichloride:

Partition coefficient: n-octanol/water: Not applicable, inorganic compound

Mobility in soil

Water solubility: completely soluble (20 °C)

Surface tension: No data available

Iron trichloride:

Other adverse effects

May lower the pH of water and thus be harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Product	Classified as hazardous waste. Must be disposed of in accordance with local and national regulations. Thoroughly cleaned packaging material may be recycled.
Contaminated packaging	Classified as hazardous waste. Must be disposed of in accordance with local and national regulations.

14. TRANSPORT INFORMATION

UN number	2582
Land transport	
DOT:	
Description of the goods:	UN2582, FERRIC CHLORIDE SOLUTION
Proper shipping name	
Class:	8
Packaging group:	III
DOT-Labels	8
Reportable quantity	Ferric chloride
Sea transport	
IMDG:	
Description of the goods:	UN2582, FERRIC CHLORIDE SOLUTION
UN proper shipping name	
Class:	8
Packaging group:	III
IMDG-Labels:	8
Environmentally Hazardous	Not a Marine Pollutant
Air transport	
ICAO/IATA:	
Description of the goods:	UN2582, Ferric chloride solution
UN proper shipping name	

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Class: 8
Packaging group: III
ICAO-Labels: 8
Special precautions for user

None known.

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

CERCLA Hazardous substance (Reportable Quantities)**CERCLA Hazardous substance (Reportable Quantities)****CERCLA Hazardous substance (Reportable Quantities)**

Hydrochloric acid (7647-01-0)
5,000 lb

Diiron tris(sulphate) (10028-22-5)
1,000 lb

Iron trichloride (7705-08-0)
1,000 lb

Hydrochloric acid (7647-01-0)

Iron trichloride (7705-08-0)

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 : No restrictions identified other than those already covered in regulations.

Notification status

- TSCA :
: 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.
- DSL :
: 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).
- AICS :
: 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).
- IECSC :
: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
- KECI :
: All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
- PICCS :
: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
- ENCS :
: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
- EINECS :
: 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.
- NZIoC :
: 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).

16. OTHER INFORMATION

HMIS Rating

Health: 3
 Flammability: 0
 Reactivity: 1

NFPA Rating

Health: 3

Fire: 0
Reactivity: 1

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.