

Kemira

SAFETY DATA SHEET

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

DISTRIBUTED BY:
CHEMICAL SERVICES INC.
2600 THUNDERHAWK CT.
DAYTON, OH 45414
PH: 937-898-5566

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 details

Kemira Water Solutions, Inc.
1000 Parkwood Circle, Suite 500
30339 Atlanta USA
Telephone +18635335990, Telefax +18635337077

HEAD OFFICE

Kemira Oyj
P.O. Box 330
00101 HELSINKI
FINLAND
Telephone +358108611 Telefax +358108621124

Emergency telephone number

CHEMTREC: 1-800-424-9300
Carechem 24 International: +44 (0) 1235 239 670

HAZARD 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.

KEMIRA PIX-311

Ref.: /US/EN

Revision Date: 06/17/2015

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Print Date: 08/13/2015

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 or doctor/ physician 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 or doctor/ physician.
P390 Absorb spillage to prevent material damage.

Storage:

P406 Store in corrosive resistant container with a resistant inner liner.

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

Disposal:
P501

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

2. 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 - 5 %

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.

KEMIRA PIX-311

Ref: /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

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. FIRE-FIGHTING 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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

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.

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.

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.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Form of	Control	Update	Basis
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			exposure	parameters		
Hydrochloric acid	7647-01-0	(c)		2 ppm 3 mg/m ³	2009-04-30	CA AB OEL
		C		5 ppm 7 mg/m ³	2006-02-28	OSHA Z-1
Iron trichloride	7705-08-0	TWA		1 mg/m ³	2007-01-01	ACGIH
		STEL		2 mg/m ³	2006-11-29	CA BC OEL

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.

PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state

liquid

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

Colour	dark brown
Odour	slightly acidic
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

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)

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date:08/13/2015

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.

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

Iron trichloride:
LD50/Rat/>
/2,564 mg/kg/OECD Test Guideline 402
Remarks: Read-across (Analogy), CAS-No., 7758-94-3

Iron trichloride:
LD50/Rat/>
/881 mg/kg/OECD Test Guideline 402
Remarks: Calculated as Fe

Skin corrosion/irritation

Conclusion: Corrosive

Skin corrosion/irritation

Iron trichloride:
Rabbit
Result: Irritating
/OECD Test Guideline 404Remarks: Read-across (Analogy),
CAS-No., 7758-94-3

Serious eye damage/eye irritation

Conclusion: Corrosive to the eyes.

Serious eye damage/eye irritation

Iron trichloride:
Rabbit
Result: Corrosive
/OECD Test Guideline 405
Remarks: Read-across (Analogy), CAS-No., 7758-94-3

Respiratory or skin sensitisation

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

Skin sensitisation

Conclusion: Not sensitizing.

Skin sensitisation

Iron trichloride:

Conclusion: According to experience sensitization is not expected.

Carcinogenicity

Carcinogenicity

Iron trichloride:

Not believed to be a carcinogen.

Reproductive toxicity

Toxicity for reproduction

Iron trichloride:

Conclusion: Not believed to be toxic for reproduction.

ECOTOXICITY 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:

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

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)

Iron trichloride:

Other adverse effects

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

DISPOSAL CONSIDERATIONS

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

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

KEMIRA PIX-311

Ref: /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

TDG:

Description of the goods: UN2582, Ferric chloride, solution
 Proper shipping name:
 Class: 8
 Packaging group: III
 TDG-Labels: 8
 Reportable quantity: Ferric chloride

Sea transport

IMDG:

Description of the goods:
 UN proper shipping name: UN2582, FERRIC CHLORIDE, SOLUTION
 Class: 8
 Packaging group: III
 IMDG-Labels: 8
 Environmentally Hazardous: Not a Marine Pollutant

Air transport

ICAO/IATA:

Description of the goods:
 UN proper shipping name: UN2582, Ferric chloride solution
 Class: 8
 Packaging group: III
 ICAO-Labels: 8
 Special precautions for user:

16 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)

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CERCLA Hazardous substance (Reportable Quantities)

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

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

KEMIRA PIX-311

Ref.: US/EN

Revision Date: 06/17/2015

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Print Date: 08/13/2015

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

- : 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 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 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 on the Japanese

KEMIRA PIX-311

Ref. /US/EN

Revision Date: 06/17/2015

Previous date: 05/29/2015

Print Date: 08/13/2015

- (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
- 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 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.

15. 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.