

1. Product and Company Identification

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Product Name Ferric Chloride
Part Number RXSOL-60-1627-002

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Product name	Cas No	EC No	Weight	Formula
Iron(III) chloride	7705-08-0	231-729-4	162,21 g/mol	FeCl ₃

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H290 May be corrosive to metals. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.
Precautionary statements	P234 Keep only in original packaging. P261 Avoid breathing dust. P280 Wear protective gloves/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Classification of the substance or mixture	No data available
Supplemental Hazard Statements	No data available
Other hazards	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.

4. First Aid Measures

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General advice	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation fresh air.
Eye Contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Swallowed	After swallowing immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

Inhalation	No data available
Ingestion	No data available
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

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Flammability	No data available
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Hydrogen chloride gas Iron oxides Not combustible. Caution! in contact with water product releases:hydrochloric acid Fire may cause evolution of: Hydrogen chloride gas Ambient fire may liberate hazardous vapours.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	No data available
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Protective Equipment	No data available
Specific Hazards Arising from the Chemical	No data available

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Spillage	No data available
Personal Protection	No data available
Environmental Precaution	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

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Advice on protection against fire and explosion	No data available
Incompatible materials	No data available
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.
Advice on safe handling	Keep workplace dry. Do not allow product to come into contact with water
Conditions for safe storage including any incompatibilities	No data available
Storage conditions	No metal containers. Tightly closed. Dry. Recommended storage temperature see product label.

Storage class	Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	No data available

8. Exposure controls and personal protection

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Exposure controls	Personal protective equipment
Engineering Control	No data available
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	Protective clothing.
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L
Respiratory protection	Recommended Filter type: Filter B-(P2) The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Other Protection Measure	No data available

9. Physical and chemical properties

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Physical state	Powder
Colour	Green, to, black
Odour	pungent
Odor Threshold	No data available
pH	No data available
Melting Point	306 °C - (ECHA)
Boiling Point	Decomposes below the boiling point.
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	does not ignite - A.10. (Regulation (EC) No 440/2008, Annex A)
Explosive limits	No data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	429,0 °C at 1.013 hPa
Decomposition temperature	316 °C
Vapour pressure	< 1 hPa at 20 °C
Viscosity	No data available
Density	2,800 g/cm ³ at 25 °C
Relative Density	2,89 at 25 °
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	No data available
Ignition temperature	No data available
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	No data available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Violent reactions possible with: Oxidizing agents Alcohols Alkali metals Ammonia
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - 72,0 mg/kg Remarks: (RTECS) Acute toxicity estimate Oral - 72 mg/kg (Calculation method) LC50 Inhalation - Rat - male and female - 4 h - 2,76 mg/l - vapor (OECD Test Guideline 403) Acute toxicity estimate Inhalation - 2,76 mg/l - vapor (Calculation method)
Skin corrosion/irritation	Skin - Rabbit Result: Causes burns. Remarks: (ECHA) Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitization	Maximization Test - Guinea pig negative (OECD Test Guideline 406) (in analogy to similar products) The value is given in analogy to the following substances: Methanol
Carcinogenicity	Presumed to have carcinogenic potential for humans
Germ cell mutagenicity	May cause genetic defects.
Reproductive toxicity	May damage the unborn child. May damage fertility.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation. - Respiratory system Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) May cause drowsiness or dizziness. - Nervous system Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Additional Information	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: KX2450000 burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to large amounts can cause:, Convulsions To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

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Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 96 % - Readily biodegradable. (OECD Test Guideline 301C)
Toxicity to fish	Static test LC50 - Pimephales promelas (fathead minnow) - 84 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Static test LC50 - Daphnia magna (Water flea) - 212 mg/l - 48 h (US-EPA)
Toxicity	No data available
Toxicity to bacteria	Static test EC50 - activated sludge - > 713 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata - 240 mg/l - 96 h (US-EPA)
Bioaccumulation potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected

Mobility in soil	No data available
Results of PBT and vPvB assessment	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.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

13. Disposal considerations

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Product	Pressurised gas bottle: dispose of only in empty condition!
Contaminated packaging	No data available
Waste treatment Method	No data available

14. Transport information

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UN number	ADR/RID:1040	IMDG:1040	IATA:1040
UN proper shipping name	ADR/RID:ETHYLENE OXIDE	IMDG:ETHYLENE OXIDE	IATA:ETHYLENE OXIDE
Transport hazard class(es)	ADR/RID:2.3 (2.1)	IMDG:2.3 (2.1)	IATA:2.3 (2.1)
Packaging group	ADR/RID:-	IMDG:-	IATA:-
Environmental hazards	ADR/RID:No	IMDG:No	IATA:No
Special precautions for user	Tunnel restriction code (B/D)		
Further information	No data available		

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work
Chemical Safety Assessment	A Chemical Safety Assessment was not carried out for this substance.

16. Other information

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Other Information	<p>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.</p> <p>DISCLAIMER OF LIABILITY : The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense</p>
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