

1. Product and Company Identification

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Product Name Aluminium Trichloride
Part Number RXSOL-60-6551-050

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

Phone +91 22 20871200 - 1400
Fax +91 22 27612100 ::AOH :0091 9821214367
Email mail@rxmarine.com
Website www.rxmarine.com

2. Composition / Information on ingredients

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Chemical Name	Cas No	EC No	Weight	Formula
Aluminium chloride	7446-70-0	231-208-1	133,34 g/mol	AlCl ₃

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H314 Causes severe skin burns and eye damage.
Precautionary statements	P260 Do not breathe dusts or mists. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. 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	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	EUH014 Reacts violently with water. EUH071 Corrosive to the respiratory tract. EUH071 Corrosive to the respiratory tract.
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	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Eye Contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Swallowed	After swallowing: make victim drink water (two glasses at most), avoid

Skin Contact	vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Inhalation	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Most important symptoms and effects, both acute and delayed	fresh air. Call in physician.
Indication of any immediate medical attention and special treatment needed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
	No data available

5. Fire-fighting Measures

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Flammability	May be combustible at high temperature.
Suitable extinguishing media	Dry powder Dry sand
Unsuitable extinguishing media	Foam Water
Special hazards arising from the substance or mixture	Hydrogen chloride gas Aluminum oxide Not combustible. Fire may cause evolution of: Hydrogen chloride gas Caution! in contact with water product releases: hydrochloric acid May not get in touch with: Water 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	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
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	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

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	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Environmental Precaution	Do not let product enter drains.
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	Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
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Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
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	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Moisture sensitive.
Storage conditions	Tightly closed. Dry. Never allow product to get in contact with water during storage. 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	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

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Exposure controls	No specific additional engineering controls are required. Provide good natural or artificial ventilation.
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Body Protection	Acid-resistant 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 Dermatrill® L 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). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatrill® L
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. Physical and chemical properties

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Physical state	powder
Colour	yellow
Odour	stinging

Odor Threshold	Not Applicable
pH	2,4 at 100 g/l at 20 °C
Melting Point	180 °C -
Boiling Point	181,2 °C at 1.013 hPa - (ECHA)
Flash Point	6 °C - closed cup
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	1 hPa at 20 °C
Viscosity	No data available
Density	2,44 g/cm ³ at 20 °C
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	450 g/l at 20 °C
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Reacts violently with water.
Chemical stability	sensitive to moisture
Possibility of hazardous reactions	Violent reactions possible with: Water alkenes Alcohols Alkali metals Alkaline earth metals Ethylene oxide halogen oxides Oxidizing agents organic nitro compounds phenols Bases
Conditions to avoid	Moisture.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - 3.450 mg/kg Remarks: (RTECS) Inhalation: No data available LD50 Dermal - Rabbit - > 2.000 mg/kg Remarks: (RTECS)
Skin corrosion/irritation	Skin - Human Result: Causes burns. Remarks: (IUCLID) Skin - In vitro study Result: Corrosive (OECD Test Guideline 435)
Serious eye damage/irritation	Remarks: Causes serious eye damage. Eyes - Human Result: Causes burns. Remarks: (IUCLID)
Respiratory or skin sensitization	Patch test: - Human Result: negative Remarks: (IUCLID) Sensitisation test: - Guinea pig
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type: In vivo micronucleus test Species: Rat Cell type: Bone marrow Application Route: Oral Method: OECD Test Guideline 474 Result: negative Remarks: (in analogy to similar products)
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Additional Information	RTECS: UF9625000 Lung irritation, Cyanosis, Central nervous system depression 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	No data available
Toxicity to fish	Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 27,3 mg/l - 48 h (EG 84/449) Remarks: (ECHA)
Toxicity	Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h
Toxicity to bacteria	EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 74,35 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid
Products Biodegradation	The methods for determining the biological degradability are not applicable to inorganic substances.
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	No data available
Other adverse effects	The following may develop after reaction of the product with water: Hydrogen chloride gas Biological effects: Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Discharge into the environment must be avoided.

13. Disposal considerations

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Product	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.
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14. Transport information

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UN number	ADR/RID:1726 IMDG:1726 IATA: 1726
UN proper shipping name	ADR/RID:ALUMINIUM CHLORIDE, ANHYDROUS IMDG:ALUMINIUM CHLORIDE, ANHYDROUS IATA:ALUMINIUM CHLORIDE, ANHYDROUS
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA:8
Packaging group	ADR/RID: II IMDG: II IATA:II
Environmental hazards	ADR/RID:Yes IMDG: Yes IATA: No
Special precautions for user	No data available
Further information	Not classified as dangerous in the meaning of transport regulations.

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	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	A Chemical Safety Assessment has been carried out for this substance.

Other Information

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