1. Product and Company Identifaction

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Porduct Name	Potassium Chlorate
Part Number	RXSOL-60-1055-050

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.rxmraine.com

2. Composition / Information on ingredients

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Product name	Cas No	EC No	Weight	Formula
Potassium chlorate for analysis	3811-04-9	223-289-7	122,55 g/mol	$KClO_3$

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H271 May cause fire or explosion; strong oxidizer. H302 + H332 Harmful if swallowed or if inhaled. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P261 Avoid breathing dust. P273 Avoid release to the environment. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
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	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.
Eye Contact	After eye contact rinse out with plenty of water. 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.
Inhalation	No data available
Ingestion	No data available
Most important symptoms and effects, both acute and delaye	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 Potassium oxides Not combustible. Avoid shock and friction. Fire may cause evolution of:Hydrogen chloride gas Has a fire-promoting effect due to release of oxygen. 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	In the event of fire, wear self-contained breathing apparatus.
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
Enviromental 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	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	No data available
Hygiene measures	Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.
Advice on safe handling	Work under hood. Do not inhale substance/mixture.
Conditions for safe storage including any incompatibilities	No data available
Storage conditions	Tightly closed. Separately or together with other oxidising substances only and away from sources of ignition and heat.Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with

	them. Recommended storage temperature see product label.
Storage class	Storage class (TRGS 510) 5.1A Strongly oxidizing 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 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 Dermatril® L
Respiratory protection	Recommended Filter type Filter B-(P2) The entrepeneur 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	Solid
Colour	White
Odour	Odourless
Odor Threshold	No data available
pH	5,0 - 6,5 at 61,3 g/l at 25 °C
Melting Point	356 °C - OECD Test Guideline 102
Boiling Point	400 °C - (decomposition)
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
Explosive limits	No data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	Does not ignite
Decomposition temperature	No data available
Vapour pressure	No data available
Viscosity	No data available
Density	2,32 g/cm3
Relative Density	2,34 at 23 °C - OECD Test Guideline 109
Specific Gravity	No data available

Partition coefficient	No data available
Explosive properties	No data available
Solubility	69,9 g/l at 20 °C - OECD Test Guideline 105- completely soluble
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)
Possibilityof hazardous reactions	Risk of explosion with arsenic resins charcoal Powdered metals sulfuric acid nitrates tannin zinc oxide Alcohols organic combustible substances Sulfides Hydrocarbons ammonium compounds Reducing agents phosphorus hydrides Fluorine Alkali metals Cyanides alkali amides sulfur potassium dichromate powdered aluminium Germanium Potassium copper compounds powdered magnesium Nitric acid Titanium sugars Organic Substances Exothermic reaction with: Ammonia calcium silicide nitrides phosphides chromium Risk of ignition or formation of inflammable gases or vapours with: sulphur dioxide hydrogen iodide
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 - 1.870 mg/kg Remarks: (Regulation (EC) No 1272/2008, Annex VI) (RTECS) LC50 Inhalation - Rat - male and female - 4 h - > 5,1 mg/l - dust/mist (OECD Test Guideline 436) LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Rabbit No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/irritation	Eyes - Rabbit No eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitization	Maximization Test - Guinea pig negative (OECD Test Guideline 406
Carcinogenicity	No data available
Germ cell mutagenicity	Test TypeAmes test Test system Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test systemChinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation with and without metabolic activation Method OECD Test Guideline 476 Test Type unscheduled DNA synthesis assay Test systemHeLa cell Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 482 Test Type Micronucleus test Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route Oral Method: OECD Test Guideline 474
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
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. Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 100 mg/kg - LOAEL (Lowest observed adverse effect level) - 1.000 mg/kg anemia, Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or

	longer., Nausea, Vomiting, Diarrhea, Hemorrhage., Liver, 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 anaerobic - Exposure time 14 d Result: 100 % - rapidly biodegradable (ECHA)
Toxicity to fish	Flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - >1.000 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Flow-through test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h (US-EPA
Toxicity	No data available
Toxicity to bacteria	Static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to algae	Static test ErC50 - Nitzschia closterium - 1,9 mg/l - 72 h
Products Biodegradation	No data available
Mobility in soil	No data availalble
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	Forms toxic mixtures in water, dilution measures notwithstanding. Discharge into the environment must be avoided.

13. Disposal considerations

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Product	No data available
Contaminated packaging	No data available
Waste treatment Method	No data available

14. Transport information

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UN number	ADR/RID:1485	IMDG:1485	IATA:1485
UN proper shipping name	ADR/RID:POTASSIUM CHLORATE	IMDG:POTASSIUM CHLORATE	IATA:POTASSIUM CHLORATE
Transport hazard class(es)	ADR/RID:5.1	IMDG:5.1	IATA:5.1
Packaging group	ADR/RID:ll	IMDG:ll	IATA:ll
Environmental hazards	ADR/RID:Yes	IMDG:Yes	IATA:No
Special precautions for user	Tunnel restriction code (E)		
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

Other Information

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 weassume 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.

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