Material Safety Data Sheet

Molten Salt HT (RXSOL-68-1436-050)

1. Product and Company Identifaction

Product Name	Molten Salt HT
Part Number	RXSOL-68-1436-050

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

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2. Composition / informationon ingredients

Name of Substance	Cas Number	EC Number	Wight %
POTASSIUM NITRATE	7757-79-1	231-818-8	50 - 60%
SODIUM NITRITE	7632-00-0	231-555-9	40 - 50%
SODIUM NITRATE	7631-99-4	231-554-3	7 - 10%

3. Hazards Identification

Signal Word	Warning
Hazard Statements	H272 May intensify fire; oxidizer H302 Harmful if swallowed H319 Causes serious eye irritation. H402 Harmful to aquatic life. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements - prevention	P210 Keep away from heat. P220 Keep/Store away from clothing/combustibles. P221 Take any precaution to avoid mixing with combustibles. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/eye protection/face protection.
Precautionary statements - response	P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER/doctor/physician if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P370+P378 In case of fire: Use appropriate media to extinguish. P273 Avoid release to the environment. P501 Dispose of contents/container in accordance with local regulations.

4. First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation:	If inhaled, If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Ingestion:	If swallowed, do not induce vomiting. Allow victim to rinse his mouth and then to drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Call a physician.
Notes to Physicians	Treat symptomatically.

5. Fire-fighting Measures

Suitable extinguishing media	Use appropriate media of adjacent fire. Cool containers with water. Keep away from common metals. Use WATER only, no dry chemical or carbon dioxide.
Protective Equipment	Use personal protective equipment.
Hazardous combustionproducts	Noxious fumes (nitrogen oxides, sodium oxides) may form. Oxidizers decompose when heated to yield oxygen and other gases which accelerate combustion. Contact with organics, other combustible may result in explosion/violent combustion.
Advice for firefighters	Wear self-contained, approved breathing apparatus and full protectiveclothing, including eye protection and boots. Self-contained air supply to protect from oxides of nitrogen. Move container from fire area if possible.
Specific extinguishing methods	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Wear suitable personal protective equipment.Respiratory protective equipment.
Enviromental Precaution	Do not allow contact with soil, surface or ground water.If the products get into drains, inform the relevant authorities immediately.
Methods and materials for containment and cleaning up	Clean up all spills immediately. No smoking, naked lights, ignition sources. Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result. Clear area of personnel and move upwind. Alert Fire Department and tell them location and nature of hazard. May be violently or explosively reactive.

7. Handling and Storage

Advice on safe handling	Avoid formation of dust and aerosols. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.
Storage	Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Store under inert gas.
Advice on general occupational hygiene	Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas.

8. Exposure controls and personal protection

Engineering Control	Set up ventilation to effectively remove and prevent buildup of any dust, vapor or mist generated from the handling of this product.

Personal Protection	Eyes/Face Protective Equipment: Wear appropriate eye protection to prevent eye contact. Skin Protection: Wear appropriate personal protective clothing to prevent skin contact. The worker should Respiratory Protection: If ventilation is not sufficient to effectively prevent buildup of dust, mists or vapors, provide Personal Protective Equipment: Provide eyewash fountains in areas where there is any possibility that workers immediately wash the skin when it becomes contaminated. Remove wet or significantly contaminated work clothing and replace. appropriate NIOSH/MSHA respiratory protection. could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Provide facilities for quickly drenching the body within the immediate work area for emergency use where there is a possibility of exposure. Depending on the specific circumstances, a deluge shower, a sink or hose could be considered adequate.

Exposure Limits:

Ingredients	CAS No	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)
Potassium Nitrate	7757-79-1	NE	NE
Sodium Nitrite	7632-00-0	NE	NE
Sodium Nitrate	7631-99-4	NE	NE

Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

9. Physical and chemical properties

Form	Crystline Powder
Colour	White to Yellowish
Odour	Odourless
Boiling point and boiling range	Not Available
Flash Point	Not Available
Melting Point	143°C
pH	Not Applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper explosion limit	Not available
Lower explosion limit	Not available
Explosive properties	Not available
Vapor pressure	Not available
Relative vapor density	Not available
Bulk Density	2.08 g/cm3 (25°C)
Water solubility	Not Applicable
Solubility in other solvents	Not available
Partition coefficient: octanol	Not available
Autoignition temperature	Not available
Thermal decomposition	Not available
Viscosity, kinematic	Not available
Explosive properties	Not available
Oxidizing properties	Not available
Molecular weight	Not available
VOC	Not available

10. Stability and reactivity

Recativity	None
Stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Condition to Avoid	Fusion of mixtures of metal cyanides, including lead thiocyanate, with metal chlorates, perchlorates, nitrates or nitrites causes a violent explosion. Avoid contact with organics. Heat.
Hazardous Decomposition	Sodium oxides, Nitrogen oxides.
Condition to Avoid	None Known
Polymerization	Will not occur.

11. Toxicological information

	Potassium Nitrat ::
Acutr Toxicity Potassium Nitrate	Skin Not Available Eyes Not Available Respiratory Not Available Ingestion : LD50 Oral – rat – 3,750 mg/kg LD50 Oral – rabbit – 1,901 mg/kg
Acutr Toxicity Sodium Nitrate	Skin Not available Eyes Not available Respiratory Not Available Ingestion LD50 Oral – rat – 1,267 mg/kg LD50 Oral – rabbit – 2,680 mg/kg LD50 Oral – Child – 22.5 mg/kg.
Other	LD50 Intravenous – mouse – 175 mg/kg
Signs & Symptoms of Exposure	
Skin	Redness, itching, irritation, and pain
Eyes	Irritation, redness, watering eyes, itchiness.
Respiratory	Dizziness, difficulty breathing, shortness of breath, Irritation, and coughing.
Ingestion	Gastroenteritis, abdominal pain, nausea, vomiting, bloody diarrhea, metabolism acidosis, muscular weakness, dizziness, fatigue, headache, mental impairment, in coordination, convulsions, accelerated heart rate, orthostatic hypotension, dyspnea, and in severe cases, methemoglobinemia due to inadequate oxygenation of the blood leading to progressive cyanosis, and coma. Cyanosis is first visible as a bluish discoloration of the mucous membranes and unpigmented areas of the body. Purging and dieresis can be expected. Rare cases of nitrates being converted into more toxic nitrites.
Chronic Toxicity	May cause damage to the following organs: blood
Teratogenicity	Not Available
Mutagenicity	May affect genetic material
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	May cause adverse reproductive effects based on animal test data.

12. Ecological information

Ecotoxicity	
Potassium Nitrate	Aquatic Vertebrate : LC50 – Gambusia affinis (Mosquito fish) – 22.5 mg/l – 96h Aquatic Invertebrate : EC50 – Daphnia magna (water flea) – 226 mg/l - 72 h Terrestrial : Not Available
Sodium Nitrate	Aquatic Vertebrate : LC50 – Gambusia affinis (Mosquito fish) – 6,650 mg/l – 96h Aquatic Invertebrate : EC50 – Daphnia magna (water flea) – 6,600 mg/l - 24 h Terrestrial : Not Available
Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

Mobility in soil	Not Available

13. Disposal considerations

Remarks	Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
Waste Disposal	The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility

14. Transport information

DOT	UN1479, Oxidizing solid, n.o.s., (Potassium nitrate, Sodium nitrate), 5.1, PG III
TDG	UN1479, OXIDIZING SOLID, N.O.S., (POTASSIUM NITRATE, SODIUM NITRATE), 5.1, PG III
IMDG	UN1479, OXIDIZING SOLID, N.O.S., (POTASSIUM NITRATE, SODIUM NITRATE), 5.1, PGIII
Marine Pollutant	NO
IATA/ICAO	UN1479, Oxidizing solid, n.o.s., (Potassium nitrate, Sodium nitrate), 5.1, PG III

15. Regulatory information

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Massachusetts: Toxic or Hazardous Substance List	Listed: Potassium nitrate, Sodium nitrate
New Jersey: Right to Know Hazardous Substance List	Listed: Potassium nitrate,
Pennsylvania: Hazardous Substance List	Listed: Nitric acid Potassium salt, Nitric acid Sodium salt
Rhode Island: Hazardous Substance List	Listed: Niter, Sodium nitrate
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 313	Not Listed
WHMIS Canada	Not Listed

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 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.