Material Safety Data Sheet

Ferric Alum Indicator (RXSOL-60-6119-100)

1. Product and Company Identifaction

Product Name	Ferric Alum Indicator
Part Number	RXSOL-60-6119-100

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

Branch : Sikka, Kandla, Dahej , Hazira, JNPT, Goa, Mngalore, Cochin, Tuticorin,Chennai, Kakinada,Vizag, Paradip, Haldia, Kolkata,Fujairah

Phone	+91 22 27815540 / 27815542
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

ChemicalName	Cas Number	Formula	Molecular Weight	Weight%
Water	7732-18-5	H?O	18.01 g/mol	81.00%
Nitric Acid	7697-37-2	HNO?	63.01 g/mol	9.74%
Ferric Ammonium Sulfate Dodecahydrate	7783-83-7	NH?Fe(SO?)?·12H?O	482.19 g/mol	9.26%

3. Hazards Identification

Classification of the Substance or Mixture.

HazardClass	Category	Hazard Statement	Precautionary Statements
Acute Toxicity - Inhalation	Category 2	H330	P260, P271, P285, P304+P340, P310, P320, P403+P233, P405, P501
Skin Corrosion / Irritation	Category 1A	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Germ Cell Mutagenicity	Category 2	H341	P201, P202, P280, P308+P313, P405, P501
SpecificTargetOrgans/SystemicToxicityFollowingSingleExposure	Category 1	H370	P260, P264, P270, P307+P311, P321, P405, P501
Specific Target Organs/SystemicToxicity Following Repeated Exposure Category	Category 1	H372	P260, P264, P270, P314, P501
Corrosive to Metals	Category 1	H290	P234, P390, P406

Hazard Statement

Hazard Number	Hazard Statement
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H341	Suspected of causing genetic defects.

H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
Precautionary Statements:	
Precautionary Number:	Precautionary Number:
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves and eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easytodo. Continue rinsing.
P307+P311	IF exposed: Call a POISON CENTER or physician.
P308+P313	IF exposed or concerned: Get medical attention.
P310	Immediately call a POISON CENTER or physician.
P314	Get medical attention if you feel unwell.
P320	Specific treatment is urgent (Wash areas of contact with water immediately).
P321	Specific treatment (Wash areas of contact with water immediately).
P363	Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents in accordance with local, state, federal and international regulations.
Hazards not Otherwise Classified or Covered by GHS	Data not available.

4. First Aid Measures

Eye Contact	IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, redness, pain, and tearing.
Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Skin Contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, redness and pain. Contact will discolor skin yellow-brown depending on exposure which will wear off after a period of time.
Ingestion	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.
Most Important Symptoms and Effects, Acute and Delayed	Corrosive Liquid. May be fatal if swallowed. Avoid contact with skin, eyes, and clothing. Avoid breathing vapor. If swallowed, do not induce vomiting. Dilute with water and call a physician. Wash areas of contact with plenty of water. Potential symptoms of overexposure are irritation of the eyes, mucous membranes and skin, dental erosion, bronchitis, pneumonitis, delayed pulmonary edema. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness and pain. Contact will discolor skin yellow-brown depending on exposure which will wear off after a period of time.
Medical Attention or SpecialTreatment Needed	Immediately call a POISON CENTER or physician. Specific treatment is urgent (Wash areas of contact with water immediately). Specific treatment (Wash areas of contact with water immediately).

5. Fire-fighting Measures

Extinguishing Media	Use any means suitable for extinguishing surrounding fire.

Specific Hazards Arising from the Substance or Mixture	Not combustible, but substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Can react with metals to release flammable hydrogen gas. May react explosively with combustible organic or readily oxidizable materials such as: alcohols, turpentine, charcoal, organic refuse, metal powder, hydrogen sulfide, etc.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.
Cleanup and Containment Methods and Materials	Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse unless there are regulations prohibiting this practice due to the iron content. Always dispose of in accordance with local regulations.

7. Handling and Storage

Precautions for Safe Handling and Storage Conditions	Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

8. Exposure controls and personal protection

Engineering Controls	Use only outdoors or in a well-ventilated area. No specific controls are needed. Normal room ventilation is adequate.
Respiratory Protection	In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate.
Skin Protection	Wear protective gloves and eye protection. Chemical resistant gloves.
Eye Protection	Wear protective gloves and eye protection. Safety glasses or goggles.
Personal Protective Equipment	Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

9. Physical and chemical properties

Appearance	Amber liquid
Physical State	Liquid
Odor	Data not available.
Odor Threshold	Data not available.
pH	Data not available.
Melting/Freezing Point	Data not available
Initial Boiling Point oC (oF)	Approximately 101°C - Approximately 101°C
Flash Point	Data not available
Evaporation Rate	Data not available
Flammability	Data not available
Flammability/Explosive Limits	Data not available
Vapor Pressure	Data not available
Vapor Density	Data not available
Relative density (water = 1)	1.08
Solubility	Miscible
Partition Coefficient	Data not available
Auto-Ignition Temperature	Data not available
Decomposition Temperature	Data not available
Viscosity	Data not available
Explosive Properties	Data not available
Oxidizing Properties	Data not available

10. Stability and reactivity

Reactivity and Chemical Stability	Stable under normal conditions of use and storage.
Possibility of Hazardous Reactions	Data not available.
Conditions to Avoid and Incompatible Materials	Keep only in original container. Strong bases, metallic powders, Carbides, Hydrogen Sulfide, Turpentine, wood, oxidizable matter, and combustible organics.
Hazardous Decomposition Products	Will not occur.

11. Toxicological information

Acute Toxicity	Dermal Exposure: Not applicable.
Acute Toxicity	Inhalation Exposure: Fatal if inhaled. Do not breathe fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment is urgent (Wash areas of contact with water immediately). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.
Acute Toxicity	Other Information: LDLo, Oral, Human: 430 mg/kg (Nitric Acid), details of toxic effects not reported other than lethal dose value.
Skin Corrosion and Irritation	Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.
Serious Eye Damage and Irritation	Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Carcinogenicity	

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Respiratory Protection	In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate.
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Eye Protection	Wear protective gloves and eye protection. Safety glasses or goggles.
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9. Physical and chemical properties

Appearance	Amber liquid
Physical State	Liquid
Odor	Data not available.
Odor Threshold	Data not available.
pH	Data not available.
Melting/Freezing Point	Data not available
Initial Boiling Point oC (oF)	Approximately 101°C - Approximately 101°C
Flash Point	Data not available
Evaporation Rate	Data not available
Flammability	Data not available
Flammability/Explosive Limits	Data not available
Vapor Pressure	Data not available
Vapor Density	Data not available
Relative density (water = 1)	1.08
Solubility	Miscible
Partition Coefficient	Data not available
Auto-Ignition Temperature	Data not available
Decomposition Temperature	Data not available
Viscosity	Data not available
Explosive Properties	Data not available
Oxidizing Properties	Data not available

10. Stability and reactivity

Reactivity and Chemical Stability	Stable under normal conditions of use and storage.
Possibility of Hazardous Reactions	Data not available.
Conditions to Avoid and Incompatible Materials	Keep only in original container. Strong bases, metallic powders, Carbides, Hydrogen Sulfide, Turpentine, wood, oxidizable matter, and combustible organics.
Hazardous Decomposition Products	Will not occur.

11. Toxicological information

Acute Toxicity	Dermal Exposure: Not applicable.
Acute Toxicity	Inhalation Exposure: Fatal if inhaled. Do not breathe fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment is urgent (Wash areas of contact with water immediately). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.
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Carcinogenicity	
Specific Target Organ Toxicity from Single Exposure	Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations
Specific Target Organ Toxicity from Repeated Exposure	Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.
Aspiration Hazard	Not applicable.
Additional Toxicology Information	Data not available.

12. Ecological information

Ecotoxicity	Data not available.
Persistence and Degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other Adverse Ecological Effects	Data not available.

13. Disposal considerations

Waste from Residues / Unused Products	Data not available.

14. Transport information

Transportation by Land-Department of Transportation (DOT, United States of America)

UN Number	UN3264
Proper shipping name	Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid)
Class	8
Packing Group	III

Transportation by Air - International Air Transport Association (IATA)

UN Number	UN3264
Proper shipping name	Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid)
Class	8
Packing Group	III

15. Regulatory information

Occupational Safety and Health Administration (OSHA) Hazards	Not listed.
Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances	Nitric Acid (CAS # 7697-37-2): 1000 lb EPCRA RQ Nitric Acid (CAS # 7697-37-2): 1000 lb TPQ
Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals	Nitric Acid (CAS # 7697-37-2): 1000 lb final RQ; 454 kg final RQ
Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)	Nitric Acid (CAS # 7697-37-2): 1.0 % de minimis concentration
Massachusetts Right-to-Know Substance List	Nitric Acid (CAS # 7697-37-2): Extraordinarily hazardous

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.