Material Safety Data Sheet

Mono Ammonium Phosphate (RXSOL-67-3702-025)

1. Product and Company Identifaction

Product Name	Mono Ammonium phosphate
Product Type	RXSOL-37-3702-025

Company Details:

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

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2. Composition / informationon ingredients

Ingredient	CAS No	Percent
MAP Monoammonium phosphate (as P2O5) (Main constituent)	7783-28-0	46
Total Nitrogen, as N**		18
Fluorides, as F		1

3. Hazards Identification

GHS-US classification

Skin Irrit. 2 H315

Eye Irrit. 2B H320

STOT SE 3 H335

Aquatic, Acute 2 H401

2.2. Label elements GHS-US labelling Hazard pictograms (GHS-US)

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation

H320 - Causes eye irritation

H335 - May cause respiratory irritation

H401 - Toxic to aquatic life.

Precautionary statements (GHS-US) : P261 - Avoid breathing dust

P264 - Wash hands thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P273 – Avoid release to the environment.

P280 - Wear eye protection, face protection, protective clothing, protective gloves

P302+P352 - IF ON SKIN: Wash with plenty of 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 easy to do. Continue rinsing

P312 - Call a POISON CENTER/doctor if you feel unwell

P332+P313 - If skin irritation occurs: Get medical advice/attention

P337+P313 - If eye irritation persists: Get medical advice/attention

P362 - Take off contaminated clothing

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, and international regulations

2.3. Other hazards Hazardous to the aquatic environment. No additional information available

4. First Aid Measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops or persists.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Obtain medical attention if irritation develops or persists.

First-aid measures after ingestion : Do not induce vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell. Drink large amounts of water (or milk if available) to dilute stomach contents. Ingestion of small quantifies in unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Irritation to eyes, skin and respiratory tract.

Symptoms/injuries after inhalation : Difficulty in breathing. Dry/sore throat. Symptoms may be delayed.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : May cause eye irritation.

Symptoms/injuries after ingestion : If a large quantity has been ingested : Abdominal pain. Diarrhea. Nausea. Vomiting.

4.3. Indication of any immediate medical attention and special treatment needed No additional information available

5. Fire-fighting Measures

5.1. Extinguishing media

Suitable extinguishing media : Chemical type foam, Carbon Dioxide (CO2), dry chemical, water fog.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Under conditions of fire this material may produce: Ammonia.

Explosion hazard : Product is not explosive. Reactivity : Stable at ambient temperature and under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Keep upwind. Under conditions of fire this material may produce: Ammonia.

Protection during firefighting : Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Other information : Do not allow run-off from fire fighting to enter drains or water courses

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not breathe fumes from fires or vapours from decomposition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.

Emergency procedures : Collect as any solid. Ventilate area.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.

Emergency procedures : If possible, stop flow of product. Contain and collect as any solid. Ventilate area.

6.2. Environmental precautions If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. COAST GUARD NATIONAL RESPONSE CENTER at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800 ?424?9300. In other countries call CHEMTREC at (International code) +1-703-527-3887.

6.3. Methods and material for containment and cleaning up

For containment : If contaminated with other materials, contain and collect as any solid in suitable containers. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Prevent large quantities from contacting vegetation.

Methods for cleaning up : Recover the product by vacuuming, shoveling or sweeping and place in appropriate container to be disposed at an appropriate disposal facility according to current applicable laws and regulations and product characteristics at the time of disposal. Provide adequate ventilation. Avoid generation of dust during clean-up of spills. If uncontaminated, recover and reuse product. Practice good housekeeping – spillage can be slippery on smooth surface either wet or dry.

6.4. Reference to other sections

No additional information available

7. Handling and Storage

7.1. Precautions for safe handling

Additional hazards when processed : When heated, material emits irritating fumes.

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

Hygiene measures : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place.

Protect from moisture. Incompatible materials : Alkalis and caustic products; strong acids; copper and its alloys.

7.3. Specific end use(s) Agricultural chemical

8. Exposure controls and personal protection

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas. Avoid high dust concentration.

Personal protective equipment : Gloves. Safety glasses. Protective clothing.

Hand protection : Impermeable protective gloves.

Eye protection : Protective goggles.

Skin and body protection : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wear suitable protective clothing. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

Respiratory protection : Wear NIOSH approved respiratory protective equipment when exposure exceeds the OSHA nuisance dust standard of 15 mg/m3 or the ACGIH nuisance dust limit of 10 mg/m3 for the eight hour time weighted average. When stored in closed area, a self-contained breathing apparatus is required to protect against ammonia gas.

Environmental exposure controls : Ensure adequate ventilation, especially in confined areas.

9. Physical and chemical properties

Physical state : Solid

Appearance : Granular solid

Molecular mass : 119.98 g/mol

Colour : White black

Odour : Ammonia

Odour threshold : No data available

pH : 4-5

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 200°C

Freezing point : No data available

Boiling point : Decomposes Flash point : Not applicable

Self ignition temperature : Not flammable

Decomposition temperature : No data available

Flammability (solid, gas) : Not flammable

Vapour pressure : Nor Applicable

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : 2.36g/cm^3

Bulk Density : 58-61 lb/ft3 (loose) 60-67 lb/ft3 (tamped)

Solubility : Water: 59.90g/l (at 20 °C)

Log Pow : No data available.

Based on water solubility it is expected that the log Pow would be very low. Log Kow : No data available

Viscosity : No data available

Explosive properties : Not explosive

Oxidising properties : No oxidizing properties

Explosive limits : No data available

10. Stability and reactivity

10.1. Reactivity Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability Stable at standard temperature and pressure.

10.3. Possibility of hazardous reactions Hazardous polymerization will not occur.

10.4. Conditions to avoid Welding or hot work on equipment or plant which may have contained fertilizer should not be done without first washing thoroughly to remove all fertilizer.

10.5. Incompatible materials Alkalis and caustic products ; strong acids; copper and its alloys.

10.6. Hazardous decomposition products Ammonia is released upon reaction with strong bases or from thermal decomposition.

11. Toxicological information

Skin corrosion/irritation : Causes skin irritation.

pH: 8.0 (conc: 1 % at 20 °C (solution)

Serious eye damage/irritation : Causes eye irritation.

pH: 8.0 (conc: 1 % at 20 °C (solution)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : OECD 471: Bacterial reverse mutation assay, S. typhimurium: Negative OECD 473:

Chromosome aberration test, Chinese hamster ovaries: Negative Carcinogenicity : Not classified

Reproductive toxicity : Not classified. OECD 422: NOAEL, Rat = 1,500 mg/kg/day

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

12. Ecological information

Ecotoxicity: EPA Ecological Toxicity rating : Slightly toxic to practically non-toxic to aquatic organisms based on the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) acute toxicity ratings.

Acute Toxicity to Fish: (Coho salmon, Chinook salmon, Rainbow trout, Bluegill, Large mouth

Chronic bass, Tilapia, Fathead minnow) 96-hr: LC50 = 90 - 1,875 mg/L Toxicity to Fish: No data available

Acute Toxicity to Aquatic Invertebrates: (Amphipod) 96-hr: LC50 = 40-52 mg/L; (Snails, worm) 96-hr: LC50 = 1,005 - 2,472 mg/L.

Chronic Toxicity to Aquatic Invertebrates: No data available

Toxicity to Aquatic Plants: (Selenastrum capricornutum) 72-hr: NOEC (stimulation) = 3.57 mg DAP/L; NOEC (toxicity) = 97.1 mg DAP/L.

Toxicity to Bacteria: No data available Toxicity to Soil Dwelling Organisms: No data available Toxicity to Terrestrial Plants: No data available

Environmental Fate: Stability in Water: Stable Stability in Soil: Stable

Transport and Distribution: Calculated, fugacity level III: 6.5 x 10 -15 to air, 45.3% to water, 54.6% to soil, 0.0755% to sediment. Phosphates, whether water or citrate soluble, are translocated in the soil only over very short periods and are then immobilized.

Toxicity: Inorganic phosphates have the potential to increase the growth of freshwater algae, whose eventual death will

Degradation Products: Biodegradation: The Phosphorus cycle is well understood. Phosphates are converted to calcium or iron/aluminum phosphates or are incorporated with the organic soil matter.

Photodegradation: No data available

13. Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste disposal recommendations : Place in an appropriate container and dispose of the contaminated material at a licensed site.

Additional information : Dispose of waste material in accordance with all local, regional, national, and international regulations.

14. Transport information

In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number No dangerous good in sense of transport regulations.

14.2. UN proper shipping name Not applicable

14.2 Additional information Other information : No supplementary information available.

Overland transport No additional information available

Transport by sea No additional information available

Air transport No additional information available

15. Regulatory information

15.1. US Federal regulations

(MAP) Monoammonium phosphate (7783-28-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

16. Other information

Eye Irrit. 2 Serious eye damage/eye irritation Category 2

------ Skin Irrit. 2 skin corrosion/irritation Category 2

------ STOT SE 3 H335 – May cause respiratory irritation.

------ H315 Causes skin irritation

------ H319 Causes serious eye irritation

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents.The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product .in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other.

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