Material Safety Data Sheet

Amino Trimethylene Phosphonic Acid ATMP (RXSOL-46-3269-270)

1. Product and Company Identifaction

Product Name	Amino Trimethylene Phosphonic Acid
Part Number	RXSOL-46-3269-050

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 / informationon ingredients

Substances

Chemical Name	Amino trimethylene phosphonic acid
Formula	$C_3H_{12}NO_9P_3$

Component		**Concentration**
1-Hydroxy Ethylidene 1,1- diphosphonic Acid		
CAS-No.	6419-19-8	48 - 52%
Phosphonic Acid		
CAS-No.	13598-36-2	4%

3. Hazards Identification

Classification of the substance or mixture

GHS Classification	
Acute Oral Toxicity	Category 5
Acute Inhalation Toxicity	Category 5
Skin Irritation	Category 2
Serious Eye Damage	Category 1
Corrosive to Metals	Category 1

Label elements

Signal Word	Danger
Hazard statement	H290: May be corrosive to metals. H303: May be harmful if swallowed. H333: May be harmful if inhaled H315: Causes skin irritation. H318: Causes serious eye damage.

Precautionary statement	P280: Wear protective gloves (rubber/PVC)/protective clothing such as apron, boots and safety glasses with side shields. P264: Wash all affected body parts thoroughly after handling. P273: Avoid release to the environment. P234: Keep only in original packaging. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor/physician. P310: Immediately call a POISON CENTER/doctor P302 + P352: IF ON SKIN: Wash with plenty of soap and water P332 + P313: If skin irritation or rash occurs: Get medical advice/attention P301 + 312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P304 + P340: IF INHALED: Remove person to fresh air and keep in position comfortable for breathing P391 + P501: Collect Spillage. Dispose of contents/container in accordance with local/state/federal regulations. P406: Store in corrosive resistant Glass, PVC, PP or PE container/in container with a resistant inner

4. First Aid Measures

Eyes	Flush skin with running water for at least fifteen minutes. Remove any contact lenses. Get medical aid/attention immediately.
Skin	Remove contaminated clothing. Wash skin with plenty of running water and soap. Get medical attention/aid if irritation persists. Contaminated clothing should be washed before use.
Ingestion	If the product is swallowed, first rinse mouth. Give large amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in recovery position. Aspiration may cause pulmonary edema and pneumonitis.
Inhalation	If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Get medical attention/consult a physician.
Medical conditions likely to be aggravated by exposure	Central nervous system and cardiovascular system
Note to Physician	Treat symptomatically.
PPE for first responders	Gloves and safety goggles are highly recommended.

5. Fire-fighting Measures

Flash Point (°C)	Not applicable
Flammable Limits	Not applicable
General Hazard	Evacuate personnel downwind in-order to avoid inhalation of irritating and/or harmful fumes and smoke
Extinguishing Media	Water spray, alcohol resistant foam, dry chemical powder or carbon dioxide. Appropriate for the surrounding area. Do not use a high-power water jet.
Hazardous Combustion Products	Fire may cause evolution of corrosive vapors of phosphorous oxides as well as Phosphine, nitrogen oxides (NOx), carbon monoxide and carbon dioxide.
Fighting Procedures	Hazardous decomposition and combustion products such as phosphorous and carbon oxides can be formed if product is burning. Cool exposed containers with water spray to prevent overheating.
Fire Fighting Equipment	Respiratory and eye protection are required for firefighting personnel. Full protective equipment (bunker gear) and self-contained breathing apparatus (SCBA) should be used for all fires. Evacuate area and fight fire from safe distance or a protected location. Move fireexposed containers, if allowable without sacrificing the safety of the firefighters. Firefighters should control run-off water to prevent environmental contamination. Do not release to sewers or waterways.
Sensitivity to Static Discharge	Not sensitive.
Sensitivity to Mechanical Impact	Not sensitive.

6. Accidental Release Measures

Protective Gear for Personnel

For Small Spill	Safety glasses or chemical splash goggles, chemically resistant gloves (rubber), chemically resistant boots, and any appropriate body protection to minimize direct contact to the skin. Wear respiratory protection to avoid inhaling vapors

For Large Spill	Triple gloves (rubber and nitrile over latex), chemical resistant suit, boots, hard hat, full face mask/an air purifying respirator (NIOSH approved). Self contained breathing apparatus must be worn in situations where fumigant gas generation and low oxygen levels are a consequence of contamination from the leak.
Spill Clean-up Procedures	
For Small Spill	In the event of a small spill, the spill should be contained with an absorbent pad and placed in a properly labeled waste disposal container immediately. Do not use water for clean up. Do not let chemical/waste enter the environment.
For Large Spill	In the event of a large spill, contain the spill immediately and dispose the spill/waste according to state, federal, and local hazardous waste regulation. Do not let chemical/waste enter the environment.
Environmental Precaution	
Water spill	Use appropriate containment to avoid run off or release to sewer or other waterways.
Land spill	Use appropriate containment to avoid run off or release to ground.
General precaution	Remove containers of strong acid, alkali and incompatible materials from the release area.
Release Notes	If spill could potentially enter any waterway, including intermittent dry creeks, contact local authorities.

7. Handling and Storage

Handling	Handle in a well-ventilated area. Handle in a manner consistent with good industrial/manufacturing techniques and practices. Wash hands thoroughly with soap and water after use. Remove contaminated clothing and protective equipment before entering eating areas.
Qualified materials	Glass, PVC, polypropylene, polyethylene.
Storage	Store in a cool, dry well-ventilated area. Keep containers closed when not in use. Keep containers isolated from incompatible materials/conditions such as heat and ignition sources. Protect against physical damage and check regularly for leaks. Do not store with oxidizing agents, alkalis, or caustic substances.

8. Exposure controls and personal protection

Engineering Controls	Use appropriate engineering controls to minimize exposure to vapors/dust generated via routine use. Maintain adequate ventilation of workplace and storage areas.
Personal Protective Equipment	
Eyes and face	Wear safety glasses with side shields or face shield when handling this material.
Skin	Avoid direct contact with skin. Wear chemically resistant gloves (PVC/rubber), apron, boots or whole chemically resistant bodysuit when handling this product.
Respiratory	Avoid breathing vapor or mist. If risk of overexposure, use NIOSH approved respiratory protection equipment. If used, full face-piece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.
Work Hygienic Practices	Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal hygiene practices should always be followed.

9. Physical and chemical properties

Appearance	Clear Liquid
Odor	Perceptible, aromatic
Odor threshold	Not available
Color	Colorless to Pale Yellow
pH	At 25°C, 10 g/l: =2
Melting Point	-12 ?C
Freezing Point	Not available
Boiling Range	>105 ?C
Flash Point	Not combustible
Ignition Temp.	No data available
Thermal Decomposition	178°C
Evaporation Rate	1 (n-Butyl Acetate = 1)

Lower Explosive Limit	Not available
Upper Explosive Limit	Not available
Vapor Pressure	Not available
Vapor Density	(Air =1): 10.3
Specific Gravity	1.32 - 1.36 @ 20 ?C
Solubility	Soluble
Partition Coefficient n-octanol/water	3.53
Auto Ignition Temp.	Not available
Molecular Weight	299.05

10. Stability and reactivity

Stability	The product is stable under recommended storage and handling conditions.
Hazardous Polymerization	Polymerization will not occur
Hazardous Decomposition Products	Gives off hydrogen by reaction with metals. Oxides of carbon and oxides of phosphorous formed under decomposition/fire.
Materials to Avoid	Corrodes base metals. Strong oxidizing agents, alkalis, and caustic substances. Reacts with steel and aluminum.
Conditions to avoid	Avoid exposure to extreme temperatures, incompatible materials, & combustible materials.

11. Toxicological information

Acute Oral Toxicity	LD50 Oral - Rat: > 2910 mg/kg
Acute Inhalation Toxicity	LC50 Inhalation: No data available
Acute Dermal Toxicity	LD50L: Dermal - Rabbit - > 6310 mg/kg LD50: Dermal - Rat - 7000 mg/kg
Corrosion/Irritation	
Skin	Skin irritation 2; H315 = Causes skin irritation
Rabbit, skin	Slightly irritant but not relevant for classification (OECD 404)
Eyes	Eye damage/irritation Eye Damage 1; H318 = causes serious eye damage
Rabbit, eye	Irritant
Carcinogenicity	
IARC, NTP, OSHA, ACGIH	Not listed
Sensitization	No data available
Mutagenicity	No data available
Reproductive Effects	No data available
Teratogenic Effects	No data available
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion
Reproductive toxicity	Based on available data, the classification criteria are not met
NOAEL (P) Rat, oral (male)	275 mg/kg bw/d
NOAEL (P) Rat, oral (female)	310 mg/kg bw/d
Specific target organ toxicity (single exposure)	Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	Based on available data, the classification criteria are not met
NOAEL Rat, oral	> 500 mg/kg bw/d (OECD 453)
Potential Health Effects	
Eyes	Causes serious eye damage.
Skin	Can cause irritation to the skin.
Inhalation	May be harmful if inhaled. Can cause irritation to the respiratory tract and can induce coughing.
Ingestion	May be harmful if swallowed. Can cause slight irritation and discomfort.

12. Ecological information

Biodegradability in Soil/Water	Approximately 5%/28 d. Not readily biodegradable (according to OECD criteria) 22 - 23%/28 d. (OECD 301D). Poorly biodegradable.
Bioaccumulative Potential	Potential is low. Secondary poisoning via the food chain is unlikely to occur
Terrestrial Ecotoxicity	This material can be harmful or fatal to contaminated plants or animals, especially if large volumes are released into the environments.
Mobility in Soil	No data available
Other Adverse Effects	Do not allow to penetrate into soil, water bodies, or drains

13. Disposal considerations

Waste Treatment Methods	Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

14. Transport information

US DOT

UN No.	3265
Proper Shipping Name	Corrosive Liquid, Acidic, Organic, N.O.S. (Amino trimethylene phosphonic acid)
UN Class	8
Packing Group	III
Label	Corrosive Sticker

IMDG

UN No.	3265
Proper Shipping Name	Corrosive Liquid, Acidic, Organic, N.O.S. (Amino trimethylene phosphonic acid)
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IATA

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Packing Group	III
Label	Corrosive Sticker

15. Regulatory information

U.S. FEDERAL REGULATIONS

TSCA	CAS# 6419-19-8 is listed on the TSCA inventory
CERCLA	No components of this product are listed.
SARA TITLE III (EPCRA) Section 313	No components of this product are listed.
SARA TITLE III (EPCRA) Section 311/312	Immediate (Acute) Health Hazard
Canadian WHMIS Classification	D2(B) - Materials causing other toxic effects; E-Corrosion Material
OSHA	None of the chemicals in this product are considered highly hazardous by OSHA
California Proposition 65	No significant risk level

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.