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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product: Amino Trimethylene Phosphonic Acid (ATMP) 50%	**Revision date:** 2026-10-29	**Version:** 1.0	**Brand:** Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Amino Trimethylene Phosphonic Acid (ATMP) 50%
Synonyms	Nitrilotri(methylphosphonic acid); ATMP
CAS No.	6419-19-8
EC No.	229-146-5
Molecular formula	C3H12NO9P3
Molecular weight	299.05 g/mol
Relevant identified uses	Scale and corrosion inhibitor for industrial water treatment; chelating agent
Uses advised against	None
Company	Richest Group Ltd.
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SECTION 2: Hazards identification

GHS Classification	Acute Toxicity (Oral) Category 5; Skin corrosion/irritation Category 3; Serious eye damage/eye irritation Category 2A
Pictogram(s)	GHS07 (Exclamation mark)
Signal word	Warning
Hazard statement(s)	H303 May be harmful if swallowed H316 Causes mild skin irritation H319 Causes serious eye irritation

Precautionary statement(s)	P264 Wash hands thoroughly after handling P280 Wear protective gloves/eye protection/face protection P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P332+P313 If skin irritation occurs: Get medical advice/attention P337+P313 If eye irritation persists: Get medical advice/attention P312 Call a POISON CENTER or doctor if you feel unwell
Other hazards	None known.

SECTION 3: Composition/information on ingredients

Component	Amino Trimethylene Phosphonic Acid
CAS No.	6419-19-8
EC No.	229-146-5
Classification	Acute Tox. 5; Skin Irrit. 3; Eye Irrit. 2A; H303, H316, H319
Concentration (%)	50 %

SECTION 4: First aid measures

If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
In case of skin contact	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If swallowed	Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
Most important symptoms and effects	May be harmful if swallowed. Causes mild skin irritation and serious eye irritation.
Indication of any immediate medical attention	Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media	Dry chemical, foam, water spray, carbon dioxide
Unsuitable extinguishing media	None known
Special hazards arising from the chemical	May decompose upon combustion or in high temperatures to generate poisonous fumes (carbon monoxide, carbon dioxide, nitrogen oxides,

	phosphorus oxides).
Advice for firefighters	Extinguish from the windward. Wear personal protective equipment including self-contained breathing apparatus.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry of non-involved personnel should be controlled around the leakage area by roping off.
Environmental precautions	Prevent product from entering drains.
Methods and materials for containment and cleaning up	Absorb spilled material with a suitable absorbent (e.g. rag, dry sand, earth, sawdust). In case of large spillage, contain the spill by bunding. Collected material should be disposed of promptly in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling	Handle in a well-ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Wash hands and face thoroughly after handling. Avoid contact with skin, eyes and clothing.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No occupational exposure limits established
Biological limit values	No biological exposure index (BEI) established.
Appropriate engineering controls	Install a closed system or local exhaust as far as possible. Also install safety shower and eye bath.
Eye/face protection	Safety glasses. A face-shield, if the situation requires.
Skin protection	Protective gloves.
Body protection	Protective clothing. Protective boots, if the situation requires.
Respiratory protection	Vapor respirator. Follow local and national regulations.
Thermal hazards	No specific thermal hazards under normal conditions of use.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Colour	Colorless to slightly pale yellow
Odour	Odourless
Melting point / freezing point	210-215 °C
Boiling point or initial boiling point and boiling range	> 100 °C (aqueous solution)
Flammability	Non-flammable (aqueous solution)
Lower and upper explosion limit / flammability limit	Not applicable
Flash point	Not applicable (aqueous solution)
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
pH	≤2.0 (1% solution)
Kinematic viscosity	No data available
Solubility	Soluble in water
Partition coefficient n-octanol/water	log Pow: -3.53
Vapour pressure	Similar to water (aqueous solution)
Density and/or relative density	1.33 g/cm3 (20 °C)
Relative vapour density	Not applicable
Particle characteristics	Not applicable (liquid)

SECTION 10: Stability and reactivity

Reactivity	No special reactivity has been reported.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May be corrosive to metals; causes skin irritation and serious eye irritation (GHS H290, H315, H319)
Conditions to avoid	High temperatures
Incompatible materials	Oxidizing agents
Hazardous decomposition products	Carbon monoxide, carbon dioxide, nitrogen oxides (NOx), phosphorus oxides

SECTION 11: Toxicological information

Acute toxicity - Oral / Inhalation / Dermal	LD50 Oral - Rat - 2,100 mg/kg LD50 Dermal - Rabbit - > 6,310 mg/kg
Skin corrosion/irritation	Rabbit, 500 mg/24H: mild irritation
Serious eye damage/irritation	Rabbit, 100 mg: moderate irritation
Respiratory or skin sensitization	Not classified (based on available data)
Germ cell mutagenicity	Not classified (based on available data)
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	Not classified; not toxic for reproduction (rat three-generation study)
STOT - single exposure	Not classified (based on available data)
STOT - repeated exposure	Not classified (based on available data)
Aspiration hazard	Not classified (based on available data)

SECTION 12: Ecological information

Toxicity to fish / daphnia / algae	Toxicity to fish: LC50 - Fish - > 100 mg/l - 96 h Toxicity to daphnia: EC50 - Daphnia magna (Water flea) - 297 mg/l - 48 h Toxicity to algae: EC50 - Algae - > 100 mg/l - 72 h
Persistence and degradability	Not readily biodegradable (phosphonate); inherently biodegradable.
Bioaccumulative potential	No bioaccumulation potential (log Pow = -3.53).
Mobility in soil	Strongly adsorbs to soil and sediment.
Other adverse effects	None known

SECTION 13: Disposal considerations

Product disposal methods	Recycle to process, if possible. Consult local/regional authorities. Observe all federal, state and local regulations when disposing of the substance.
Contaminated packaging	Dispose of in accordance with local and national regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	UN 3265

UN Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s. (Amino Trimethylene Phosphonic Acid solution)
Transport hazard class(es)	8
Packing group	III
Environmental hazards (Marine pollutant)	No
Special precautions for user	Keep containers upright, closed and secured during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	EINECS: Listed (229-146-5) C: Listed China Catalog of Hazardous Chemicals 2015: Not listed

SECTION 16: Other information

Full text of H-Statements	H303 May be harmful if swallowed H316 Causes mild skin irritation H319 Causes serious eye irritation
Revision date	2026-10-29
Version	1.0

Abbreviations and acronyms: CAS: Chemical Abstracts Service; EC: European Commission; EINECS: European Inventory of Existing Commercial Chemical Substances; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; RID: Regulation concerning the International Carriage of Dangerous Goods by Rail; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; TWA: Time Weighted Average; STEL: Short Term Exposure Limit; LD50: Lethal Dose 50%; LC50: Lethal Concentration 50%; EC50: Effective Concentration 50%; PBT: Persistent, Bioaccumulative and Toxic; vPvB: very Persistent and very Bioaccumulative; SDS: Safety Data Sheet.

References: ECHA - European Chemicals Agency, https://echa.europa.eu/; IPCS - International Chemical Safety Cards (ICSC), http://www.ilo.org/; HSDB - Hazardous Substances Data Bank; eChemPortal - OECD Global Portal to Information on Chemical Substances; ERG - Emergency Response Guidebook by U.S. DOT.

Disclaimer: The information in this SDS is only applicable to the specified product and is provided in good faith. It is based on the knowledge available to Richest Group Ltd. at the date of issue and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not constitute any guarantee of the properties of the product. Richest Group Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.