



Phosphoric Acid TDS

Product Identification

Item	Specification
Product Name	Phosphoric Acid
Chemical Name	Orthophosphoric Acid
Chemical Formula	H ₃ PO ₄
CAS Number	7664-38-2
EC Number	231-633-2
Molecular Weight	98.00 g/mol
Product Type	Inorganic mineral acid
Common Commercial Grade	85%
Supplier	ATDM

Typical Technical Specifications

Property	Typical Specification
Appearance	Clear, colorless liquid
H ₃ PO ₄ Assay	Approx. 75–85%, depending on grade
Common Commercial Concentration	85%
Color	Colorless to very pale
Odor	Nearly odorless
Density at 20°C	Approx. 1.57–1.69 g/cm ³ , depending on concentration
Solubility in Water	Completely miscible
Acidity	Strongly acidic
Iron (Fe)	Grade dependent
Chloride (Cl ⁻)	Controlled according to grade
Sulfate (SO ₄ ²⁻)	Controlled according to grade
Fluoride	Controlled according to grade
Arsenic	Controlled for high-purity and food grades
Heavy Metals	According to agreed specification
Residue	Low, depending on grade



Common Commercial Grades

Phosphoric Acid is available in different concentration and purity levels according to industrial requirements.

Grade	Typical Concentration / Use
Industrial Grade	Commonly 75–85%
Technical Grade	Usually supplied for general industrial processing
Food Grade	High-purity grade for approved food and beverage applications
Concentrated Grade	Commonly 85% H_3PO_4

Actual availability depends on order quantity and technical specification.

Physical Properties

Property	Typical Information
Physical State	Liquid
Appearance	Clear and colorless
Chemical Formula	H_3PO_4
Molecular Weight	98.00 g/mol
Relative Density	Depends on concentration
Boiling Point	Depends on concentration
Freezing Point	Depends on concentration
Solubility	Fully miscible with water
Odor	Nearly odorless
Flammability	Non-flammable
Chemical Character	Acidic

Main Applications

Phosphoric Acid supports a wide range of industrial and commercial applications, including:

- Fertilizer manufacturing
- Phosphate fertilizer production
- Food and beverage processing
- Acidity regulation
- Metal surface treatment
- Rust removal



- Chemical manufacturing
- Water treatment
- Detergent production
- Industrial cleaning
- Phosphate compound production
- Laboratory applications
- Ceramics and specialty chemicals

Quality Parameters

Industrial buyers should define the required product specification before ordering.

Important parameters can include:

- H_3PO_4 concentration
- Product grade
- Purity
- Iron content
- Chloride content
- Sulfate content
- Fluoride level
- Heavy-metal limits
- Arsenic limit where applicable
- Color
- Density
- Required packaging

ATDM can provide a **Certificate of Analysis (COA)** according to the supplied batch.

Packaging

Phosphoric Acid requires suitable chemical-resistant packaging.

Common packaging options may include:

- HDPE drums
- IBC tanks
- Chemical-resistant containers
- ISO tanks
- Bulk tankers

Packaging availability depends on:

- Product concentration
- Order quantity



- Destination
- Transport method
- Customer requirements

Storage Conditions

Store the product in a cool, dry, secure, and well-ventilated location.

Keep containers tightly closed.

Protect the material from contamination, excessive heat, and physical damage.

Keep away from:

- Strong bases
- Reactive metals
- Incompatible chemicals
- Materials sensitive to acids

Use corrosion-resistant storage equipment suitable for phosphoric acid.

Handling Recommendations

Workers should follow proper chemical-handling procedures.

Recommended PPE includes:

- Chemical-resistant gloves
- Safety goggles
- Face shield where required
- Protective clothing
- Acid-resistant footwear

Provide adequate ventilation during transfer and handling.

Always follow the current supplier-issued SDS.

Shelf Life

Shelf life depends on:

- Product purity
- Concentration
- Storage temperature



- Container compatibility
- Exposure to contamination
- Packaging condition

Under recommended storage conditions, the product can remain stable for extended periods.

Customers should follow the batch-specific storage guidance provided by the supplier.

Technical Documentation

ATDM can provide relevant product documentation according to the order, including:

- Technical Data Sheet
- Safety Data Sheet
- Certificate of Analysis
- Commercial Invoice
- Packing List
- Certificate of Origin where applicable
- Shipping Documentation

Supplier Information

ATDM supplies and exports Phosphoric Acid for industrial and commercial B2B applications.

Customers can send their required concentration, grade, quantity, packaging preference, destination port, and technical specification to receive a suitable commercial offer.

For final purchasing decisions, buyers should always compare this general TDS with the actual **batch-specific COA and supplier-issued technical documentation.**