

PRODUCT IDENTIFICATION



Product Name: Deionized Water ACS Reagent Grade

CAS Number: 7732-18-5

Molecular Formula: H₂O

Molecular Weight: 18.015 g/mol

Grade: Reagent Grade

Purity / Concentration: 100%

Synonyms: Demineralized Water, Purified Water

PRODUCT OVERVIEW

Alliance Chemical offers Deionized Water in ACS Reagent Grade, a high-purity solvent essential for precise laboratory and industrial applications. This clear, odorless liquid is processed to ensure minimal ionic contamination, providing a reliable baseline for analytical chemistry and sensitive formulations.

Grade Significance: ACS Reagent Grade signifies that the product meets the stringent quality standards set by the American Chemical Society, ensuring the consistency and purity required for high-stakes analytical work.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, odorless	Odor	Odorless
Form	Liquid	Boiling Point	212 °F at 760 mmHg
Melting / Freezing Point	32°C (90°F)	Specific Gravity	1.0
Solubility	Miscible with water	Molecular Formula	H ₂ O
Molecular Weight	18.015 g/mol	Vapor Pressure (20°C)	23.8 mmHg
Refractive Index (20°C)	1.3330	Density (25°C)	0.998 g/mL
Decomposition Temp.	Not applicable		

APPLICATIONS

- Analytical Chemistry** — Functions as a high-purity mobile phase component in reversed-phase chromatography to ensure accurate separation of organic compounds.
- Spectroscopy** — Serves as a reliable baseline solvent in UV-Vis spectroscopy, selected for its low UV cutoff wavelength that prevents interference with sample analysis.
- Industrial Manufacturing** — Utilized in precision cooling systems for machinery and equipment to prevent overheating and minimize mineral scale buildup.
- Laboratory Research** — Used as the primary solvent for the preparation of reagents, buffers, and stock solutions in various chemical analyses.
- Pharmaceuticals** — Acts as a purified base for the formulation of sensitive products where ionic purity and chemical consistency are critical.

STORAGE & HANDLING

Proper storage is essential to maintain the high purity of deionized water, as it is highly susceptible to absorbing carbon dioxide and contaminants from the environment. Containers should be kept tightly sealed in a cool, dry place to prevent the reintroduction of ions or biological growth that could compromise sensitive analytical results.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent leaching of contaminants.
- Avoid exposure to air to minimize recontamination.
- Use appropriate PPE such as gloves and goggles when handling.
- Ensure proper ventilation in storage areas to avoid buildup of vapors.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning

No GHS pictograms assigned.

Hazard Statements:

- Not Classified
- Reported as not meeting GHS hazard criteria by 1866 of 1876 companies (only 0.5% companies provided GHS information). For more detailed information, please visit ECHA C&L website.

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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