TECHNICAL DATA SHEET

Battery Water

Revised: 04/27/2026

PRODUCT IDENTIFICATION

Product Name: Battery Water
CAS Number: 7732-18-5
Molecular Formula: H_2O
Molecular Weight: 18.015 g/mol
Grade: Technical Grade
Purity / Concentration: Not Available
Synonyms: Deionized Water, Distilled Water

PRODUCT OVERVIEW

Alliance Chemical provides high-quality Technical Grade battery water, a clear and colorless liquid essential for maintaining electrolyte balance. With a conductivity of just 1 µS/cm and extremely low mineral content, this product is engineered to prevent harmful deposits in sensitive equipment. It is the ideal choice for refilling lead-acid batteries and supporting precise chemical dilutions.

Grade Significance: Technical Grade ensures that the product meets high purity standards suitable for industrial and mechanical applications, offering a balance of performance and cost-effectiveness for bulk usage.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Color (APHA)	APHA	5	—	10	ASTM D1209
pH	pH	6.8	6	8	ASTM D1293
Specific Gravity (20°C)	g/mL	0.998	0.997	1.001	ASTM D4052
Residue After Ignition	%	0.0005	—	0.0010	ASTM D381
Heavy Metals (as Pb)	ppm	0.05	—	0.1	EPA 6010
Iron (Fe)	ppm	0.05	—	0.2	ASTM D1068
Chloride (Cl^-)	ppm	0.1	—	0.5	ASTM D512
Sulfate (SO_4^{2-})	ppm	0.2	—	1	ASTM D516
Conductivity Us Cm	µS/cm	1	—	2	ASTM D1125

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	**Odor**	Odorless
Form	Liquid	**Boiling Point**	100°C (212°F)
Melting / Freezing Point	0°C (32°F)	**Flash Point**	Not applicable
Specific Gravity	1.0	**Solubility**	Soluble in water
Molecular Formula	H_2O	**Molecular Weight**	18.015 g/mol
Vapor Pressure (20°C)	23.8 mmHg	**Viscosity (25°C)**	0.89 cP
Refractive Index (20°C)	1.333	**Density (25°C)**	1.000 g/mL
Decomposition Temp.	Not applicable (water decomposes at 100°C/373 K)		

APPLICATIONS

1. **Automotive** — Used to top off lead-acid batteries to maintain proper electrolyte levels, which significantly extends battery lifespan and prevents internal plate damage.
2. **Industrial Manufacturing** — Serves as a reliable base for preparing specialized electrolyte solutions across various battery technologies and power storage systems.
3. **Laboratory Analysis** — Utilized as a high-purity solvent and diluent for analytical procedures where low mineral content is required to prevent contamination of test results.
4. **HVAC and Cooling** — Applied in cooling systems to prevent the buildup of mineral scale and deposits, ensuring optimal thermal efficiency and system longevity.
5. **Chemical Processing** — Acts as a consistent medium for chemical mixing and formulation, providing a controlled environment for reactive processes.

STORAGE & HANDLING

Proper storage is critical to maintaining the low conductivity and high purity levels of this water. It must be kept in a tightly sealed, non-reactive container to prevent airborne contaminants or carbon dioxide from dissolving into the liquid, which would otherwise alter its pH and conductivity specifications.

- Store in a cool, dry place away from direct sunlight.
- Use HDPE containers to prevent leaching of contaminants.
- Avoid contact with strong acids or bases to prevent chemical reactions.
- Ensure containers are tightly sealed to prevent evaporation and contamination.
- Wear appropriate PPE such as gloves and goggles when handling.

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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