

PRODUCT IDENTIFICATION



Product Name: Xylene ACS Grade
CAS Number: 1330-20-7
Molecular Formula: C₈H₁₀
Molecular Weight: 106.16 g/mol
Grade: ACS Grade
Purity / Concentration: 98.5%
Synonyms: Dimethylbenzene, Xylol

PRODUCT OVERVIEW

Xylene ACS Grade from Alliance Chemical is a high-purity solvent with an assay of 99.1%. This clear, pale liquid is primarily used as a mobile phase in HPLC and as a solvent in paints and coatings. Its consistent quality makes it suitable for demanding applications.

Grade Significance: ACS Grade signifies that this Xylene meets the stringent purity standards set by the American Chemical Society, ensuring its suitability for laboratory and analytical applications where accuracy and reproducibility are critical.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.1	98.5	—	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.867	0.865	0.87	ASTM D4052
Residue After Ignition	%	0.0005	—	0.0020	USP <281>
Water Content	%	0.01	—	0.05	ASTM E203
Heavy Metals (as Pb)	ppm	0.05	—	1	USP <231>
Iron (Fe)	ppm	0.02	—	0.2	ICP-OES
Chloride (Cl ⁻)	ppm	0.1	—	1	USP <221>
Substances Darkened By Sulfuric Acid	—	Passes Test	—	—	ACS
Sulfur Compounds As S	ppm	1	—	30	ASTM D5623

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, pale liquid with transparent visual profile	Odor	Sweet, aromatic odor
Form	Liquid	Boiling Point	138°C (280°F)
Melting / Freezing Point	-47°C (-53°F)	Flash Point	25°C (77°F)
Specific Gravity	0.865	Solubility	Low water solubility, excellent organic solvent
Molecular Formula	C ₈ H ₁₀	Molecular Weight	106.16 g/mol
Vapor Pressure (20°C)	6.7 mmHg	Viscosity (25°C)	0.89 cP
Refractive Index (20°C)	1.496	Density (25°C)	0.867 g/mL

APPLICATIONS

- 1. Pharmaceutical** — Used in the extraction processes for isolating active pharmaceutical ingredients (APIs) from natural sources. Its solvency properties aid in the efficient recovery of desired compounds.
- 2. Laboratory Analysis** — Commonly used as a mobile phase component in reversed-phase high-performance liquid chromatography (HPLC) for separating organic compounds. Its consistent purity ensures accurate and reliable analytical results.
- 3. Paints and Coatings** — Utilized as a solvent in the formulation of paints, coatings, and adhesives due to its excellent solvency properties. It helps to dissolve and disperse resins and pigments, ensuring a smooth and even finish.
- 4. Chemical Synthesis** — Serves as a precursor in the synthesis of various chemicals, including plastics, resins, and synthetic fibers. Its reactivity and chemical properties make it a valuable building block in chemical manufacturing.
- 5. Adhesives** — Functions as a solvent in adhesive formulations, providing the necessary viscosity and wetting properties for proper application. Xylene helps to dissolve the adhesive components and ensure good bonding.
- 6. Research and Development** — Used as a general-purpose solvent in research and development laboratories for various experiments and processes. Its versatility and availability make it a common choice for a wide range of applications.

STORAGE & HANDLING

Xylene is a flammable liquid, so it must be stored in a cool, dry, well-ventilated area away from heat, sparks, and open flames to prevent fire hazards. Proper storage also prevents degradation of the product, maintaining its purity and performance over time.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE is worn, including gloves and goggles, when handling the product.
- Keep away from incompatible materials and ensure adequate ventilation in storage areas.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H226: Flammable liquid and vapor
- H304: May be fatal if swallowed and enters airways
- H312: Harmful in contact with skin
- H315: Causes skin irritation
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H373: May cause damage to organs through prolonged or repeated exposure

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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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