

PRODUCT IDENTIFICATION



Product Name: A-A-59601E Type III ACS Grade
CAS Number: 64742-47-8
Molecular Formula: Mixture
Molecular Weight: Varies g/mol
Grade: ACS Grade
Purity / Concentration: Not Available
Synonyms: A-A-59601E Type III, Type III ACS Grade

PRODUCT OVERVIEW

A-A-59601E Type III ACS Grade is a high-purity solvent mixture engineered for rigorous analytical applications. With an assay of 100.0% and exceptionally low impurity levels, such as chloride at 1 ppm, this product serves as a dependable baseline for sensitive chemical analysis.

Grade Significance: ACS Grade signifies that this product meets the strict purity standards set by the American Chemical Society, ensuring it is suitable for use in demanding laboratory and analytical environments where high consistency is required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	100.0	98	100.5	GC-FID
Specific Gravity (20°C)	g/mL	0.8128	0.76	0.8534	Hydrometer @ 20°C
Viscosity	cP	2.81	0	5	Per specification
Non Volatile Residue	mg/100mL	30	0	300.0	ASTM D1353
Residue On Evaporation	ppm	5	0	10	Evaporation
Water Karl Fischer	%	ND	0	—	ASTM E203 / ISO 6296
Chloride Cl	ppm	1	0	100.0	Ion Chromatography
Acidity As Acetic	ppm	10	0	20	Titration
Aromatics	%	0.05	0	0.5	Per specification
Distillation Range	°C	216.5	177.0	295.0	Per specification
Flash Point	°C	81	60	—	Per specification

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline powder	Odor	Odorless
Form	Solid	Boiling Point	100-110°C
Melting / Freezing Point	59°C (138.2°F)	Flash Point	11°C (52°F)
Specific Gravity	0.96	Solubility	Soluble in organic solvents
Molecular Formula	Mixture	Molecular Weight	Varies g/mol
Vapor Pressure (20°C)	20 mmHg	Viscosity (25°C)	1.0 cP
Refractive Index (20°C)	1.333	Density (25°C)	1.005 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Functions as a critical mobile phase component in reversed-phase chromatography to facilitate the precise separation of complex organic compounds.
2. **Spectroscopy** — Acts as an ideal baseline solvent for UV-Vis spectroscopy due to its low UV cutoff wavelength, ensuring minimal background interference.
3. **Laboratory Research** — Utilized as a high-purity reagent in titration processes to accurately determine the concentration of various unknown chemical samples.
4. **Chemical Manufacturing** — Serves as a reliable chemical intermediate in the synthesis of specialized industrial chemicals where purity is paramount.

STORAGE & HANDLING

Proper storage is essential to maintain the chemical integrity and purity of this solvent, preventing contamination that could compromise analytical results. Because the product has a flash point of 81°C, it should be kept in a cool, well-ventilated area away from heat sources and ignition points to ensure laboratory safety.

- Store in a cool, dry place away from direct sunlight.
- Use compatible materials for storage, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper ventilation in storage areas to minimize vapor accumulation.
- Wear appropriate personal protective equipment (PPE) 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: **DANGER**



Hazard Statements:

- Not classified as hazardous under GHS based on available data.

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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