

PRODUCT IDENTIFICATION



Product Name: Hexane ACS Reagent Grade

CAS Number: 110-54-3

Molecular Formula: C₆H₁₄

Molecular Weight: 86.18 g/mol

Grade: Reagent Grade

Purity / Concentration: 98.5%

Synonyms: n-Hexane, Hexane 99%

PRODUCT OVERVIEW

Hexane ACS Reagent Grade is a high-purity solvent featuring a 99% assay and extremely low residue levels of 3 ppm. This volatile hydrocarbon is essential for laboratories and manufacturers requiring precise, reliable performance in organic extractions and analytical procedures.

Grade Significance: Reagent Grade indicates that this chemical meets the stringent ACS standards required for laboratory use, ensuring that impurity levels remain low enough to avoid interfering with analytical results.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99	98.5	100.0	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity 60 60F	g/mL	0.676	0.659	0.7098	Hydrometer @ 60/60°F (15.6/15.6°C)
Residue On Evaporation	ppm	3	—	10	Evaporation
Water Karl Fischer	%	0.0030	—	0.05	ASTM E203 / ISO 6296
Distillation Range	°C	66	63	69	ASTM D1078
Sulfur	%	0.0009	—	0.0030	Per specification

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, volatile light hydrocarbon liquid	Odor	Characteristic petroleum-like odor
Form	Liquid	Boiling Point	156 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-139 °F (NTP, 1992)	Flash Point	-9.4 °F (NTP, 1992)
Solubility	Low water solubility, excellent organic solvent.	Molecular Formula	C ₆ H ₁₄
Molecular Weight	86.18 g/mol	Vapor Pressure (20°C)	160 mmHg
Viscosity (25°C)	0.36 cP	Refractive Index (20°C)	1.375
Density (25°C)	0.655 g/mL		

APPLICATIONS

1. **Analytical Chemistry** — Used as a critical mobile phase component in chromatography to ensure accurate separation and identification of organic compounds.
2. **Pharmaceutical Manufacturing** — Acts as an effective solvent for the extraction of active pharmaceutical ingredients from complex plant-based raw materials.
3. **Industrial Maintenance** — Utilized as a high-performance cleaning and degreasing agent for precision metal parts in manufacturing environments.
4. **Organic Synthesis** — Serves as a reliable non-polar solvent for facilitating various organic chemical reactions where high purity is required.

STORAGE & HANDLING

Due to its flash point of -9.4 °F, Hexane is a highly flammable liquid that must be stored in a cool, well-ventilated area away from ignition sources. Proper containment prevents the accumulation of hazardous vapors and minimizes the risk of fire or respiratory exposure.

- Store in a cool, well-ventilated area away from heat sources.
- Use materials compatible with hexane such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Keep container tightly closed when not in use to prevent evaporation.
- Use appropriate personal protective equipment (PPE) including gloves and goggles.

AVAILABLE PACKAGING

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

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H225: Highly flammable liquid and vapour
- H304: May be fatal if swallowed and enters airways
- H315: Causes skin irritation
- H336: May cause drowsiness or dizziness
- H361f: Suspected of damaging fertility
- H373: May cause damage to organs through prolonged or repeated exposure
- H411: Toxic to aquatic life with long lasting effects

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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