

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, non-polar hydrocarbon solvent meticulously refined to meet stringent analytical standards. Featuring a 99.9% assay and exceptionally low impurity levels, including only 0.0050% water content, this solvent is an essential tool for precise laboratory and industrial applications.

Grade Significance: Reagent Grade signifies that this product conforms to strict American Chemical Society standards, ensuring the high level of purity and consistency necessary for reproducible analytical results.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99	98.5	—	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.676	0.659	0.7098	Hydrometer @ 25°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** — Functions as a reliable mobile phase component in chromatography to ensure accurate separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Used as a high-purity solvent for the efficient extraction of active pharmaceutical ingredients from complex plant matrices.
3. **Industrial Cleaning** — Provides effective degreasing and cleaning for sensitive metal components where residue-free surfaces are required.
4. **Chemical Synthesis** — Acts as a versatile non-polar reaction medium for various organic synthesis pathways requiring high chemical consistency.

STORAGE & HANDLING

Due to its status as a highly flammable liquid with a flash point of -22°C, Hexane must be stored in a cool, well-ventilated area away from all ignition sources. Proper containment prevents the accumulation of volatile vapors and mitigates 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 vapor [Danger Flammable liquids]
- H304: May be fatal if swallowed and enters airways [Danger Aspiration hazard]
- H315: Causes skin irritation [Warning Skin corrosion/irritation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]
- H361f ***: Suspected of damaging fertility [Warning Reproductive toxicity]
- H372: Causes damage to organs through prolonged or repeated exposure [Danger Specific target organ toxicity, repeated exposure]
- H411: Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment, long-term hazard]

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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