

Propane is a highly purified, liquefied hydrocarbon gas supplied in pressurized cylinders. It is naturally odorless, colorless, non-toxic, and leaves no residue on evaporation. Propane's very low boiling point makes it ideal for cryogenic-range hydrocarbon extraction, yielding exceptionally clean extracts with minimal lipid and wax co-extraction at operating temperatures below -30°C.

SECTION 1: PRODUCT IDENTIFICATION

Product Name	Propane
CAS Number	74-98-6
Synonyms	Dimethylmethane; R-290; HC-290; LPG; UN1978
Molecular Formula	C ₃ H ₈ MW: 44.10 g/mol
Purity	≥99.5% Propane; no mercaptans; no BTEX detected
Physical Form	Liquefied compressed gas (liquid under pressure, gas at ambient conditions)
Odor	Odorless (no mercaptan odorant added)
UN Number	UN1978, Class 2.1
Supplier	Cannagas Supply 97 Turnpike Rd, Westborough, MA 01581 877-710-1965 Sales@canna-gas.com

SECTION 2: PHYSICAL & CHEMICAL PROPERTIES

Physical State (amb.)	Colorless gas; liquid under pressure	Auto-ignition	450°C (842°F)
Boiling Point	-42.1°C (-43.8°F) at 1 atm	Vapor Density	>1 (heavier than air)
Vapor Pressure	~109 psig (751 kPa) at 70°F (21°C)	Solubility in Water	Slight
Liquid Density	0.493 g/mL at boiling point	Residue on Evap.	None — 100% volatile
Flash Point	N/A (gas at ambient temperature)	Color	Colorless
LEL / UEL	2.1% / 9.5% in air	Flammability Class	Extremely Flammable Gas — GHS Cat. 1A

SECTION 3: PURITY SPECIFICATIONS

Minimum Purity	≥99.5% Propane; no mercaptans; no BTEX detected
Residue	None — 100% volatile, no residue on evaporation
Odorant	None added — odorless as supplied by Cannagas Supply
BTEX Compounds	Not detected (benzene, toluene, ethylbenzene, xylene)
Sulfur Compounds	Not detected — no mercaptans
Moisture	Not detected

SECTION 4: APPLICATIONS

Hydrocarbon Extraction	Low boiling point (-42°C) enables extraction at very cold temperatures, reducing co-extraction of waxes and chlorophyll. Commonly blended with butane for tuned performance.
-------------------------------	--

Fuel	Primary fuel for residential heating, cooking, barbecues, and commercial industrial burners.
Refrigerant	Used as refrigerant R-290 — environmentally preferred alternative to synthetic refrigerants.
Blend Component	Added to butane blends to increase vapor pressure, lower boiling point, and improve cold-temperature performance.

SECTION 5: CYLINDER & STORAGE INFORMATION

Valve Connection	CGA 510 (standard) or CGA 555 (liquid-to-liquid) — confirm with order
Max Fill Temp.	120°F (49°C) — never heat cylinders above this temperature
Storage	Store cylinders upright, outdoors or in approved ventilated storage, away from heat sources and ignition. Comply with NFPA 58.
Handling	Never drop, drag, or roll cylinders. Use appropriate hand truck. Bond and ground during transfer. Use combustible gas detector — never use open flame for leak detection.
Return Policy	Return empty cylinders to Cannagas Supply. Do not puncture, vent, or attempt to refill cylinders.

SECTION 6: REGULATORY & SAFETY SUMMARY

■ **SAFETY NOTE: EXTREMELY FLAMMABLE GAS (H220). PRESSURIZED CONTAINER** — may explode if heated (H280). Vapors are heavier than air and may travel to distant ignition sources. Simple asphyxiant at high concentrations. Cryogenic liquid contact causes frostbite. Refer to SDS for complete hazard information.

GHS Signal Word	DANGER
Key Hazards	H220: Extremely flammable gas. H280: Pressurized container — may explode if heated.
DOT Classification	Class 2.1 Flammable Gas, UN1978, Class 2.1
NFPA 704	Health: 1 Flammability: 4 Reactivity: 0
SDS Reference	Full SDS available. CHEMTREC: 1-800-424-9300.

DISCLAIMER: The information provided in this Technical Data Sheet is based on data believed to be accurate as of the issue date. Cannagas Supply makes no warranty, express or implied, regarding fitness for a particular purpose or accuracy of the information herein. Users are responsible for determining suitability for their specific application. Always refer to the Safety Data Sheet (SDS) for complete safety and regulatory information.