

Propane Molecule
(C₃H₈)

Today, propane is the number one alternative fuel for the automotive sector, and it powers more than 15 million vehicles in over 38 countries. The reason is clear. Propane provides fleet managers with cost-effective, clean, safe and reliable alternative fuel. Plus, more than 90 percent of all propane used in the United States is produced domestically, reducing our dependence on foreign oil.*

WHAT IS PROPANE AUTOGAS?

CLEAN. ♦ DOMESTIC. ♦ ABUNDANT. ♦ SAFE.

Clean:

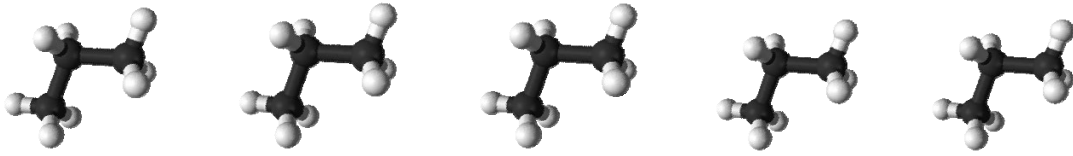
- 24% reduction in Greenhouse Gas (GHG) emissions
- 20% reduction in Nitrogen Oxide (NO_x) emissions
- 60% reduction in Carbon Monoxide (CO) emissions

Domestic:

- 90% of propane used in U.S. comes from U.S.
- 7% of propane used in U.S. comes from Canada

Abundant:

- Most refueling infrastructure of any alternative fuel
- Major natural gas shale found in northeast U.S.
- Powers over 15 million vehicles worldwide



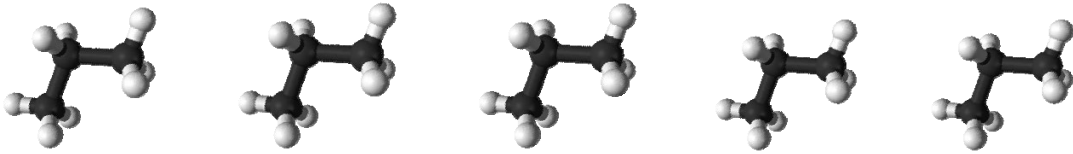
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Safe:

- Low pressure (~ 200 psig)
- Narrow flammability range
- Fuel tanks are 20 times more puncture resistant than gasoline
- Propane cylinders are equipped with a device that cuts off the filling process when the tank reaches 80 percent of its liquid capacity.
- Propane has the lowest flammability rating of any alternative fuel
- Propane leaks are easy to detect due to the strong pungent smell that imitates the scent of rotten eggs.
- Propane will not contaminate water or soil.
- Unlike other fuels, (i.e. gasoline) propane can not be ingested due to the fact that it is vaporized internally when released from its container. Leaks do not form a puddle; propane dissipates into the air.
- In contrast with gasoline's ignition temperature of 430 to 500 degrees F, propane will not ignite until the air reaches at least 940 degrees F.

The Bottom Line: Propane is *Clean* and *Green!*

- *Lower emissions*
- *Lower operating costs*
- *Proven technology*



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NEXT GENERATION PROPANE VISION

ROUSH CleanTech Fuel System:

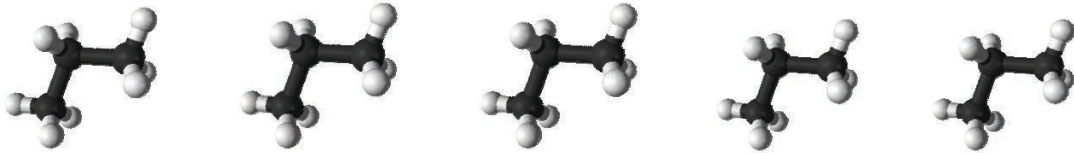
- Improved horsepower and torque
- Service & Maintenance Support
- Dual fuel pumps
 - For increased engine output
- OEM-like Integration
- Faster Fill Times
 - New system = mechanical
 - Old system = electronic
- Auto Start One-Touch System
- Air brakes



FORD E-450 DRW CUTAWAY

- Engine Size:** 6.8L V10 (2V)
- Applications:** Dual rear wheel cutaway
5-speed auto transmission
- Tank Sizes:** Aft-Axle: 41 gallons





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PROPANE-POWERED VISION



- Capacity:** Multiple floor plans, passenger seating up to 77
- Engine:** Ford 6.8L with ROUSH CleanTech Liquid Propane Autogas Fuel System
- Horsepower:** 362 hp @ 4750 RPM
- Tank Size:** 67-gallon ASME certified steel fuel tank located between frame rails in rear overhang

MONARK[™]
STUDENT TRANSPORTATION CORPORATION

* Sources: Roush CleanTech; U.S. DOE Honolulu Clean Cities Chapter; U.S. EPA; Governors' Ethanol Coalition; Alternative Fuels Data Center/U.S. DOE; World Liquid Propane Gas Association.