

Detergency

Both **ECO Supreme** Premium Diesels have powerful detergent formulations that restore performance and fuel economy to the levels you experienced when your engine was brand new.

ECO Supreme and **ECO Supreme High Cetane** can help:

- Prevent carbon deposit buildup around the rings that hamper their performance
- Prevent injector tips from clogging and operating inefficiently
- Eliminate “stickiness” by removing internal diesel injector deposits (IDID) that:
 - Slow down moving parts
 - Lead to a loss of power
 - Create hard starts
 - Cause performance to drag



Lubricity

ECO Supreme and **ECO High Cetane** Premium Diesels have superior capabilities that extend your engine’s life and protect your fuel system. Coating all moving parts with a protective layer provides increased lubricity that:

- Reduces injector and injector pump wear so they last longer
- Reduces maintenance costs – you don’t have to replace parts as often
- Reduces downtime due to maintenance and repair

Corrosion Inhibitor

Both **ECO Supreme** Premium Diesels have corrosion inhibitor compounds that protect your engine from expensive damage because they:

- Form a protective barrier on the metal
- Prevent corroded metal plugging filters and fuel lines
- Keep fuel clean from rust particles and contaminants
- Stop rust from forming



Moisture Control

ECO Supreme Premium Diesels prevent fuel system freeze-ups and breakdowns with alcohol-free moisture control agents that:

- Protect against excess moisture from condensation
- Disperse moisture throughout the fuel
- Reduce microbial growth by controlling free moisture in fuels
- Stop ice crystals from forming

Cetane Improver

ECO Supreme and **ECO Supreme High Cetane** use increased cetane improvers to:

- Boost your engine’s ability to start quicker
- Produce more energy per gallon and increases fuel economy
- Reduce white smoke and knocking
- Reduce harmful emissions
- **ECO Supreme High Cetane** has additional improvers for maximum performance even under harsh conditions

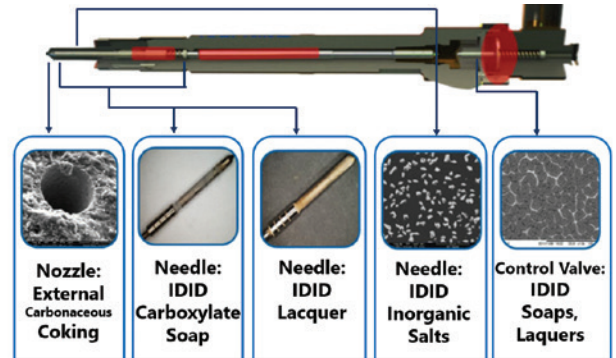
Thermal Stability

ECO Supreme and **ECO Supreme High Cetane** Premium Diesel have first-rate thermal stabilizers protect fuel filters and lines by blocking the formation of:

- Preventing the development of gums and black sludge
- Keeping fuel from overheating and forming filter-damaging deposits
- Maintaining combustion efficiency for better engine performance
- Helping the fuel system stay clean and free from buildup in the tank

The Problem - NEW OPERABILITY ISSUE

Internal Diesel Injector Deposits can slow the response or cause the sticking of moving internal parts, resulting in a loss of control of injection event timing and/or the amount of fuel delivered.



Performance Problems:

- Poor/No Start
- Rough Idle/Drivability
- Excess Power/Particulate Production (sticking open)
- Loss of Power (sticking shut)
- Fuel Filter Plugging



Two of the types of IDID Problems:

- Waxy or “soap” deposits (carboxylate salts)
- Carbonaceous or “lacquer” deposits (thermal breakdown of fuel)

Internal deposits are different than “conventional” nozzle deposits.

- In form: internal vs. external to fuel pressure side In function: sticking vs. physical blockage

THE SOLUTION

Proper treatment with **ECO Supreme** Premium Diesel* or **ECO Supreme High Cetane** Premium Diesel* will completely restore power loss and increase fuel economy up to 3 ½% .

Lykins ECO Supreme & ECO Supreme High Cetane VS Standard ULSD

Property	Standard Test method	Regular ULSD	ECO Supreme	ECO Supreme High Cetane	Exceeds Standard
Cetane	D-613	40-42	42-44	47-50	✓+
Lubricity	D-6047	520	375-430	375-430	✓
Cold Filter Plug Point, F	D-6371	0°	*Minus 12°-24°	*Minus 12°-24°	✓
Thermal Stability	D-9496	80 or Higher	98 or Higher	98 or Higher	✓
Corrosion	D-655	C or Higher	A	A	✓
Detergency	XUD9,DW10C **Heavy Duty IDID	NONE	Exceeds XUD9,DW10 **Heavy Duty IDID	Exceeds XUD9,DW10 **Heavy Duty IDID	✓

* Results may vary based on fuels

** Heavy duty IDID engine test as performed on John Deere 6.8 engine, exceeds top tier standard.

Lykins ECO Supreme & ECO Supreme High Cetane Benefits

- Cetane**
 - Quicker starts, better fuel economy, reduced knocking, reduced NOX
- Lubricity**
 - Reduced maintenance cost, reduced equipment downtime
- Cloud Point**
 - Improved winter operation
- CFPP**
 - Improved winter operation, prevents “gelling” and improves filter ability
- Thermal Stability**
 - Helps your fuel system burn cleaner, improves over all performance
- Corrosion**
 - Superior moisture control eliminates water issuer and maintains stability
- Detergency**
 - Restores 100% of horse power, and optimizes engine efficiency
- Moisture Control**
 - Non-alcohol chemical to help safely pass small amounts of moisture through the fuel system