



ENVIRO+

DPF CLEANER

Diesel Fuel Additive

Issue: November 2017

PRODUCT CODE	PACK SIZE	CTN / QTY
ADDPFC375	375ml	6

Product Description

Enviro+ DPF Cleaner is a **Patented**, liquid bimetallic **platinum & cerium** catalyst, diesel fuel additive specifically formulated to clean blocked DPF's (Diesel Particulate Filters) as well as improve the operation and reduce maintenance of DPF & emissions control systems in diesel engine applications. Its formulation is soluble and stable in traditional diesel & bio-diesel fuels. It cleans and assists in regeneration of diesel particulate filters (DPF's), reduces engine particle matter, cleans injectors, improves diesel fuel combustion improving fuel economy, engine efficiency and maximising catalyst life.

Application

DPF Cleaner's detergents clean deposit build up on the injectors ensuring an even spray pattern. This ensures fuel flow is optimised and assists a uniform burn in the combustion chamber, avoiding power loss. The combustion chamber surfaces are conditioned with active metals to promote a uniform flame front throughout the combustion cycle. This allows a faster burn at lower temperatures and also improves engine efficiency.

DPF Cleaner reduces engine particulate matter by up to 20% with ULSD (*Ultra Low Sulphur Diesel*) and 30% with B20/ULSD (*Bio / Ultra Low Sulphur Diesel*), so there is less soot (which when burnt accumulates as ash) to collect in the DPF. It initiates passive regeneration (soot oxidation) at lower temperatures and more complete regeneration replacing the need to remove and clean the DPF or replace it completely from high soot loading.

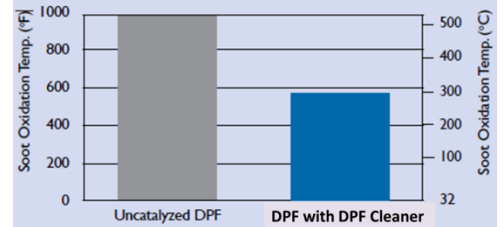
DPF Cleaner improves fuel combustion which means less soot accumulation on turbo charger and other combustion exhaust components. Each soot particle emitted from the engine enters the exhaust system coated with our patented bimetallic formulation including two active metals. The active metals work synergistically to oxidize the soot particles and to regenerate and maintain a catalyst coating on the diesel particulate filter with regular use.

DPF Cleaner lowers soot oxidation temperature as shown in chart to the right allowing regeneration at lower temperatures preventing run-away regeneration which can otherwise damage the integrity of the substrate and shorten the life of the DPF.

DPF Cleaner improves fuel economy by up to 8% (or more depending on engine and application)

DPF Cleaner is designed to be used in diesel fuelled passenger cars, light and heavy duty commercial vehicles, trucks, buses & other machinery that are fitted with a diesel particulate filter and or use **Penrite Enviro+** diesel engine oils* or **Penrite Diesel HD**.

PLEASE NOTE – **DPF Cleaner** is designed to be used in vehicles fitted with a DPF (*Diesel Particulate Filter*). Its maximum benefits are derived from vehicles that are fitted with these filters. We do not recommend this product for use in vehicles not fitted with DPF's, although it will not harm these vehicles or diesel catalysts if fitted to the vehicle. For non DPF vehicles, we recommend **Penrite Diesel Injector Cleaner** to maintain smooth, consistent performance & economy. It is also **NOT** suitable for use in Peugeot and Citroen vehicles as a replacement for the fluid used in their electronically controlled fuel additive dosing systems.



PENRITE



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How to use

- Add to tank prior to filling with fuel.
- Add 375ml to 30 litres of diesel fuel for regeneration assist on 1st stage filter blockage (Warning Light). For blockage prevention & maintenance, add 375ml for every 60 litres of diesel.
- Recommended every 5,000 km and at every engine service period. Can be used at each fill of fuel for maximum benefits if needed.

Please Note: If your vehicle is fitted with a “Capless” Fuel Filler system, we recommend using the vehicles emergency fuel filling funnel when adding this product to the fuel tank.

Product Benefits

- Cleans blocked DPF's
- Lowers DPF regeneration temperature
- Improves fuel economy and reduces CO2 emissions
- Visibly reduces smoke and opacity
- Enhances water shedding, lubricity and stability
- Cleans fuel injectors and improves combustion efficiency
- Safe for use with SCR / DPF systems
- Innovative solution backed by worldwide patents
- Minimizes unscheduled maintenance and operations costs
- Less soot build up in oils can result in reduced maintenance and potentially longer drain intervals.
- Extends catalyst life

Industry Specifications

VERT-approved with DPF

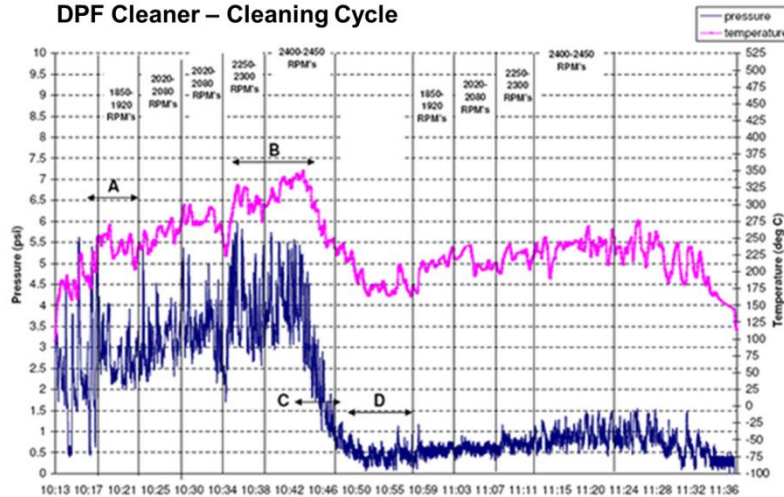
Typical Data

Density at 15°C, kg/L	0.81
Boiling Range	192° - 256° C
Flash Point	74° - 76° C
Viscosity, Kinematic, cSt at 40°C	1.0 - 2.5
Colour	Amber

Sample DPF Cleaner test results

- 1) Passive and controlled regeneration are made possible at temperatures in the low 300°C range, easily achieved by the bus operators in their regular route, by either driving the bus at highway speeds or by loading the engine on uphill grades for 5-10 minutes. This activity will either dramatically reduce or eliminate cleaning requirements.
- 2) Controlled regeneration without fear of run-away heat production, which might otherwise damage filter integrity or create tailpipe flames
- 3) Complete regeneration of even dry soot from the EGR engines dropped backpressure from 5 psi to 0.5 psi.
- 4) increases the rate and completeness of combustion, thereby lowering the amount of engine-out soot by as much as 25%. This helped maintain a cleaner DPF longer, based on decreased loading; even five months after passive regeneration, backpressure did not exceed 3 psi.
- 5) More complete combustion and less backpressure also improved fuel economy (although specific amounts were not measured in the course of this program).

DPF Cleaner – Cleaning Cycle



- A. Typical urban driving with exhaust temperatures ranging between 225 - 300° C
- B. Driving for 15 min at highway speeds increased temperatures to the 300 - 350° C range and initiated passive low-temperature regeneration
- C. Over the course of regeneration, backpressure dropped from a high of 4.5-5.5 psi to 0.5 psi
- D. Stable backpressure between 0.5-1.0 psi; after five months of operation, backpressure on the Platinum Plus-treated system remained below 3 psi

Information in this sheet is based on recent production. Minor variations to typical properties are expected in normal manufacture and do not affect product performance. An MSDS is available on request.

*Penrite Enviro+ Diesel Engine Oils – ENVIRO+5W-30, ENVIRO +5W-40, ENVIRO +10W-40, ENVIRO+DL-1, ENVIRO +C4, Enviro+ C2 and Enviro+ C3



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