

CLEARNOX

Stop crystallization
for good
before it stops you!

AdBlue®
substitute



TOTAL

Committed to Better Energy

CLEARNOX, the solution for crystallization

CLEARNOX is a ready-to-use urea solution for SCR after treatment systems. Like AdBlue®, CLEARNOX treats nitrogen oxide (NOx).

But CLEARNOX doesn't stop there: thanks to an exclusive formula developed by Total researchers, CLEARNOX eliminates the risk of downtime by preventing crystallization in the SCR system.

CLEARNOX complies with the physical and chemical specifications in the ISO 22241 standard.

How it works

In some circumstances, the exhaust gases are not hot enough to react properly with AdBlue®.

As a result, cyanuric acid crystals may form, fouling the SCR system and bringing the vehicle to a standstill.

CLEARNOX guarantees an optimal spray that ensures a complete reaction even at lower temperatures, **to prevent crystallization in the SCR system.**

What a SCR mixer looks like⁽¹⁾



Without CLEARNOX



With CLEARNOX

(1) View of a SCR mixer without the use of CLEARNOX and with the use of CLEARNOX. Tests conducted on a laboratory test bench at 250°C (December 2018, Total Research Solaize).

CLEARNOX, a product that stands out

PREVENTS CRYSTALLIZATION:

- ▶ Maintains the SCR system and engine.
- ▶ Reduces the number of breakdowns and vehicles out of service in your fleet.
- ▶ Helps manage fuel consumption.

REPLACES ADBLUE®:

- ▶ Ready to use - no need to drain the tank first.
- ▶ Ensures compliance with emissions levels in pollution control standards.

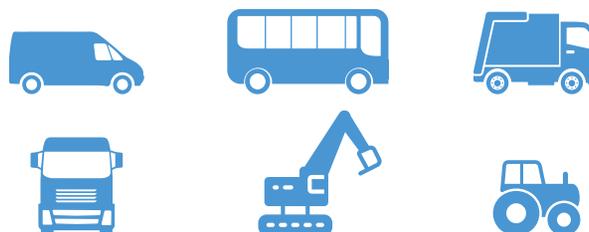
PATENTED APPLICATION:

- ▶ Developed by Total Researchers.
- ▶ Exclusive formula tested in collaboration with engine and vehicle manufacturers.

For optimal SCR system operation:

- CLEARNOX should always be used.
- Have your SCR system cleaned at a certified auto repair center, before using CLEARNOX.

Compatible with every type of vehicle



CLEARNOX, less downtime, more savings

Added cost of CLEARNOX ⁽²⁾		Cost of replacing the injector ⁽³⁾	
Diesel consumption	40 L/100	1 injector	€ 650
Annual diesel volume	20,000 L	1 hour of labor	€ 80
AdBlue® (7%) consumption	1,400 L	A half-day of downtime	€ 500
€ 350		VS.	€ 1,230

(2) Estimated added cost per year per vehicle based on 50,000 km/year, and average CLEARNOX price in December 2018.
(3) Average retail price (December 2018).

That's enough to pay for more than three years of CLEARNOX.

Not to mention the potential cost of replacing the SCR system (about €8,000).

Delivered in bulk or packaged form

