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ClearBlue

Diesel Emissions Fluid (DEF)
(Aqueous Urea Solution 32.5%)



What is ClearBlue?

ClearBlue is an aqueous urea solution manufactured by Greensafe Australia Pty Ltd for use in vehicles with SCR technology.

ClearBlue is a clear and colourless solution made from urea and water. The solution is non-toxic and safe to handle. Only high purity urea and ultrapure water are used to manufacture the ClearBlue solution which ensures that ClearBlue is free from contamination and meets the international quality standard for SCR-DEF solutions, ISO 22241-1.

What is SCR?

Selective catalytic reduction is a process that most heavy duty vehicle manufacturers have adopted to reduce nitrous oxide (NOx) emission from the exhaust of diesel engine vehicles. This technology was introduced to meet tough new emissions standards in Europe which are called Euro 5 and Euro 6. Australian emission standards for heavy vehicles are based on European regulations and the Euro 5 standard was mandated in Australia in January 2011.

How does it work?

ClearBlue, stored in a separate tank located beside the diesel tank which has a distinctive blue lid (Figure 1), is injected into the exhaust gases before they pass through an SCR catalytic converter. It is here that the ClearBlue solution decomposes into ammonia (NH₃) and carbon dioxide (CO₂). In the catalytic converter the nitrogen oxides (NO_x) in the diesel emissions are converted to harmless nitrogen (N₂) and water (H₂O) when mixed with the ammonia (NH₃). See Figure 2. ClearBlue is dosed into the SCR system at a

rate equivalent to 3-5% of the diesel consumption.

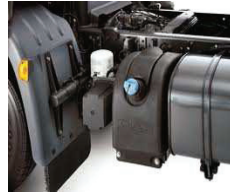


Figure 1 – Picture of SCR-DEF solution tank and distinctive blue lid visible.

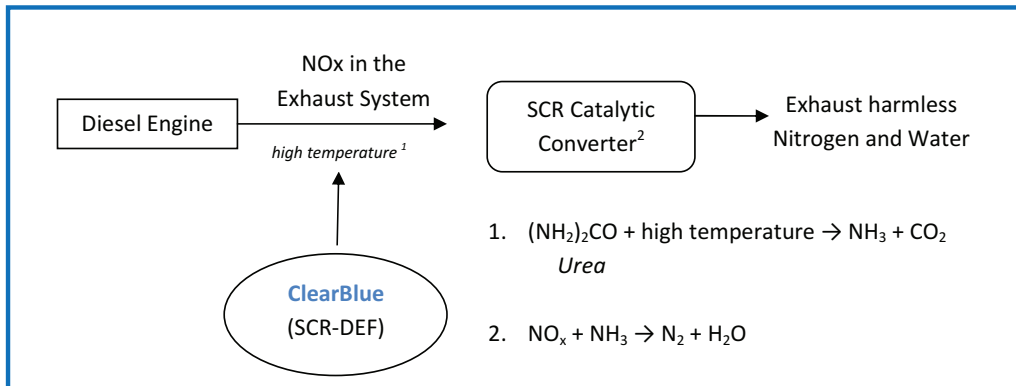


Figure 2 – Schematic of SCR technology and main chemical reactions.

The Greensafe Way

ClearBlue is manufactured and tested by qualified industrial chemists whose combined experience totals 30 years. Each batch of ClearBlue is tested using a refractometer specifically designed to measure the aqueous urea solution (Figure 3). This ensures that each batch meets the ISO 22241-1 requirement of 32.5±0.7% urea.



Figure 3 - Urea refractometer.

Hassle Free Service

Greensafe Australia provides onsite deliveries of the ClearBlue solution for any size fleet, whether you have one truck or 100 vehicles. Greensafe Australia can deliver any volume of ClearBlue up to 2000L per delivery to your depot to refill your existing storage containers (Figure 4).



Figure 4 – 1000L IBC

Our mission is to provide our customers with a hassle free service which includes regular scheduled deliveries of ClearBlue and a 24/7 dispensing equipment maintenance service.



For further information on our innovative Clear Blue-DEF supply solution
CALL Bruce Cunningham on 0422 369 888 or Caryn Cunningham on 0412 858 167
or email info@greensafeaustralia.com.au.