



Fleetfacts

Fleetguard AdBlue®

In today's environmentally conscious world, vehicle emissions are becoming more stringent. Cummins Filtration is committed to ensuring the products we manufacture and sell have a positive effect on the environment.

From user-friendly filters to environmentally-friendly coolants and Fleetguard AdBlue®, our goal is to supply quality products that keep your engines running cleaner, longer.

Experience matters

Cummins Filtration is an expert in emissions technology. As a systems provider, we manufacture Fleetguard AdBlue®, a reagent used in the conversion of harmful exhaust emissions as well as catalytic mufflers for vehicle systems, supply dispensing equipment and partner with major, global companies to deliver Fleetguard AdBlue® to the market. This level of expertise is unequalled in the heavy duty automotive industry in Australia.



Fig 1. Cummins Filtration AdBlue® Production facility in Melbourne

Cummins Filtration is licensed to use the AdBlue® trademark which requires compliance with the German Association of the Automotive Industry's (VDA) strict quality control requirements. The VDA owns the AdBlue® name.

Cummins Filtration's manufacturing facility (Fig1) was audited by the VDA-QMC in November 2010 and became the only manufacturer outside of Europe to be accredited by the VDA in the processes required to manufacture AdBlue®.

The technology

Many engine manufacturers, including Cummins, are increasingly using **Selective Catalytic Reduction (SCR)** technology in their engines' after treatment system to meet legislated emission requirements.

SCR systems require a reagent as part of the process to convert toxic Nitrogen Oxide (NOx) into harmless Nitrogen and Water. That reagent comes in the form of Fleetguard AdBlue®, an Aqueous Urea Solution of 32.5% Urea that is mixed in exacting proportions of deionised water (AUS32). This ratio is important to meet the correct rate of emission control requirements.

How it works

Fleetguard AdBlue® is injected into the exhaust system via an onboard dosing system in accordance with sensors feeding back information about the amount of NOx in the exhaust gases. The Fleetguard AdBlue® heats up in the exhaust pipe and converts to ammonia. The ammonia reacts with the catalyst in the specially designed muffler and converts harmful NOx into water and nitrogen. The On Board Diagnostic (OBD) adjusts the amount of Fleetguard AdBlue® that is injected into the exhaust to control the levels of NOx released via the tailpipe. The diagram in Fig 2 explains how Fleetguard AdBlue® is injected.

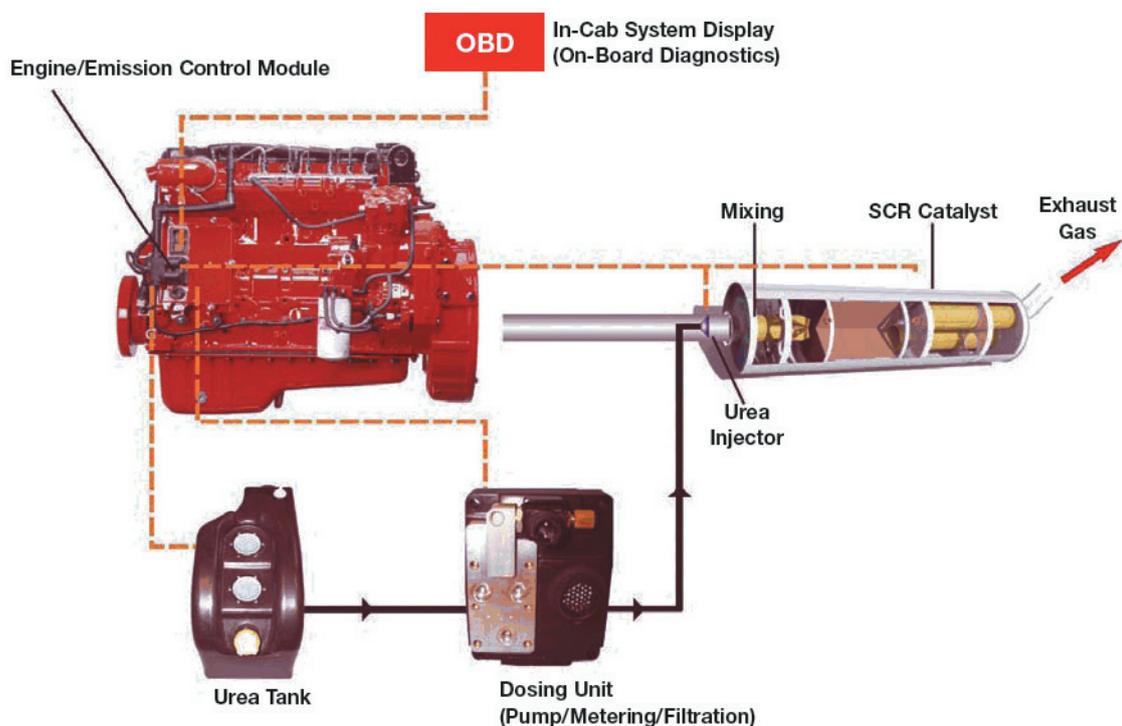


Fig 2. How a SCR system works

Quality without compromise

SCR exhaust systems utilise sophisticated equipment to control exhaust emissions. Ensuring they operate reliably and cost effectively is dependent upon the reagent product that is used with them.

Quality is the key in maintaining proper system operation, compliance with emissions regulations and minimising the chance of damage to the SCR system, which can lead to very expensive repairs.

Cummins Filtration Fleetguard AdBlue® meets high purity requirements, as defined by the International Organisation for Standardisation ISO 22241-1.

Additionally, testing and handling of Fleetguard AdBlue® is set out as per ISO 22241-2/3. By manufacturing, testing and handling Fleetguard AdBlue® to ISO standards we are safeguarding our customers' investment in their equipment. Our Fleetguard AdBlue® is produced through one of two approved processes which meets ISO standards. We only use high purity synthetic urea in our production process, not re-used agricultural urea products. Using inferior and diluted products can effect engine performance and risk non-compliance with legislated emissions regulations.

Fleetguard AdBlue® is available in quantity sizes of 4, 10, 20, 208 & 1000 litre containers as well a bulk delivery capacity up to 20,000 litres.



Fleetguard AdBlue® products available for OEM First Fill and Aftermarket:

Part Number	Description
CC36058	10 litre
CC36059	20 litre
CC36060	205 litre
CC36061	1000 litre

Good to know

- While Fleetguard AdBlue® may have a slightly pungent odour, similar to that of ammonia, it is non-toxic, non-polluting and non-flammable.
- Fleetguard AdBlue® is corrosive to aluminum (over time) and other materials. Tank, packaging and dispensing equipment suppliers take this into account and only use approved materials for their products.

- Fleetguard AdBlue® shelf life is a function of ambient storage temperature. AdBlue® will degrade over time depending on temperature and exposure to sunlight. If stored between -10 and +32 Degrees Celsius the shelf life will be one year.
- Fleetguard AdBlue® consumption is expected to be approximately 2% - 6% of fuel consumption, dependent on vehicle application, duty cycle, geography, ratings and the combination of technologies used to achieve emission targets.
- In the unusual event that AdBlue® becomes frozen it can be thawed without compromise to the quality of the product.

Question Time

1. What does SCR stand for?
 - a) Selective Catalytic Reduction
 - b) Single Category Restriction
 - c) Simple Charging Regulation
2. Who is the only company outside of Europe to be accredited by VDA to manufacture AdBlue®?
 - a) Fleetguard
 - b) Cummins Filtration
 - c) Valvoline
3. Why is it so important to use a high quality product in SCR systems?
 - a) To make sure you get what you pay for
 - b) To avoid costly repairs and also ensure proper emissions control
 - c) To ensure you get the best fuel economy

Answers: 1. a 2. b 3. b



Cummins Filtration
31 Garden Street
Kilsyth Victoria 3137

Tel: +61 3 9721 9100
Freecall: 1800 032 037
Fax: +61 3 9721 9147
Internet: cumminsfiltration.com

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