

The background of the advertisement is a composite image. The upper portion shows a winding coastal highway with concrete pillars, set against a backdrop of a blue sea and a rocky cliff under a clear sky. The lower portion, separated by a diagonal line, shows a blue-tinted image of a diesel engine's internal components, including pistons and valves.

# AdBlue®

## **Diesel Exhaust Fluid (DEF)**

**AUS 32, ISO 22241, DIN 70070**

**Genuine AUS32 Diesel Exhaust Fluid - VDA approved AdBlue  
Compatible with all diesel SCR systems**



VDA approved A



# Carefully crafted Every Drop of AdBlue Helps You Succeed

## Compatible with all diesel SCR systems

Lubpro AdBlue diesel exhaust fluid (DEF) is produced by combining highly purified urea with ultra-pure demineralized water under clean, controlled conditions. The fluid is stored, shipped and dispensed using dedicated and compatible materials. Batch traceability is assured through rigorous ISO 22241 quality control measures.

Lubpro AdBlue diesel exhaust fluid works with all selective catalyst reduction systems (SCR) to significantly reduce nitrogen oxide (NOx) content in diesel engine exhaust streams. SCR is a new exhaust gas after-treatment technology that incorporates aqueous 32.5 % urea based diesel exhaust fluid to meet the latest emissions requirements.



## The best choice for reducing emissions

Noxious emissions from vehicle exhausts, such as carbon monoxide, hydrocarbons, oxides of nitrogen and particulates can cause smog, heart and lung disease and cancer. To minimise these impacts, Australia has had noxious emission standards since the early 1970s. These standards set maximum limits for noxious emissions from vehicle exhausts for new road vehicles supplied to Australia, and have been progressively tightened over the past 40 years.

The current minimum noxious emission standard for new light vehicles in Australia is ADR 79/04, which is based on an international standard known as Euro 5. The current minimum noxious emission standard for new heavy vehicles is ADR 80/03, which is based on an international standard known as Euro V, with vehicles meeting equivalent US or Japanese standards also accepted.

An increasing proportion of vehicles meeting tighter noxious emission standards has played a major part in improving and maintaining good air quality in Australia. They already have solutions for meeting the exhaust standard of tomorrow:

optimised engines, NOX Storage Catalysts (NSC) and Selective Catalytic Reduction (SCR). The latter treats exhaust using a new aqueous solution.

**Its name: Lubpro AdBlue.**

# AdBlue®



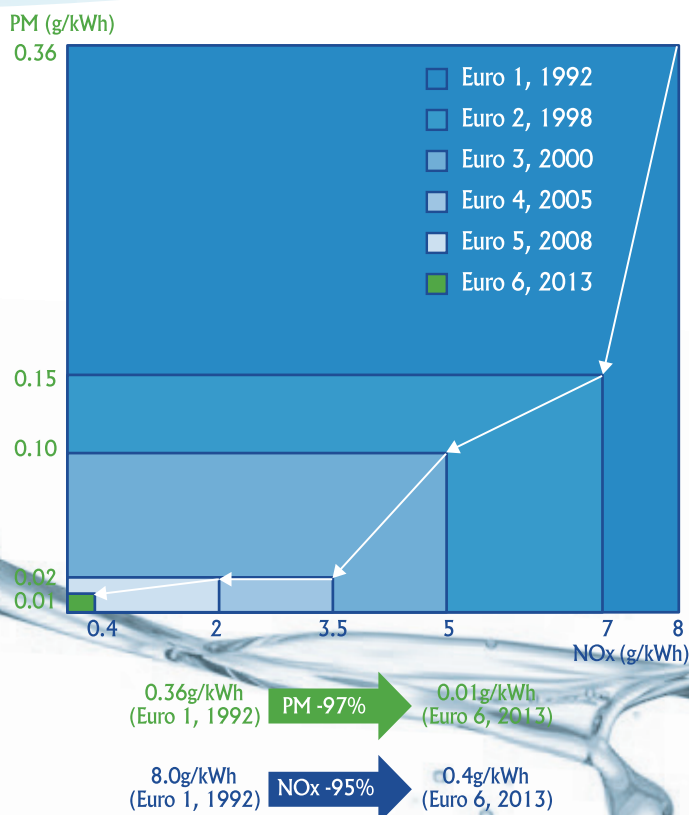


## Lubpro AdBlue: a 32% urea solution for vehicles

To ensure conformity with environmental standards concerning the content of harmful substances in exhaust emissions (Euro-4, Euro-5, Euro-6), virtually all manufacturers of trucks and heavy machinery have opted for the selective catalytic reduction technology (SCR).

The SCR technology is based on the injection of the exhaust gas flow, which results in a chemical reaction reducing harmful nitrogen oxides (NOx) into harmless substances, water and nitrogen.

### Heavy-duty Diesel Engine Emission Standard Development Trend



The AdBlue® name is a registered trade mark of the AUS-32 aqueous urea solution held by the German Association of the Automotive Industry (Verband der Automobilindustrie or VDA). The AdBlue name can only be used if the product complies with the requirements of the ISO 22241 and provided there is a licence agreement with the VDA.

## **Lubpro AdBlue - Applications**



Transport  
companies



Public  
transportation



Marine



Passenger  
vehicles



Mining/  
Construction

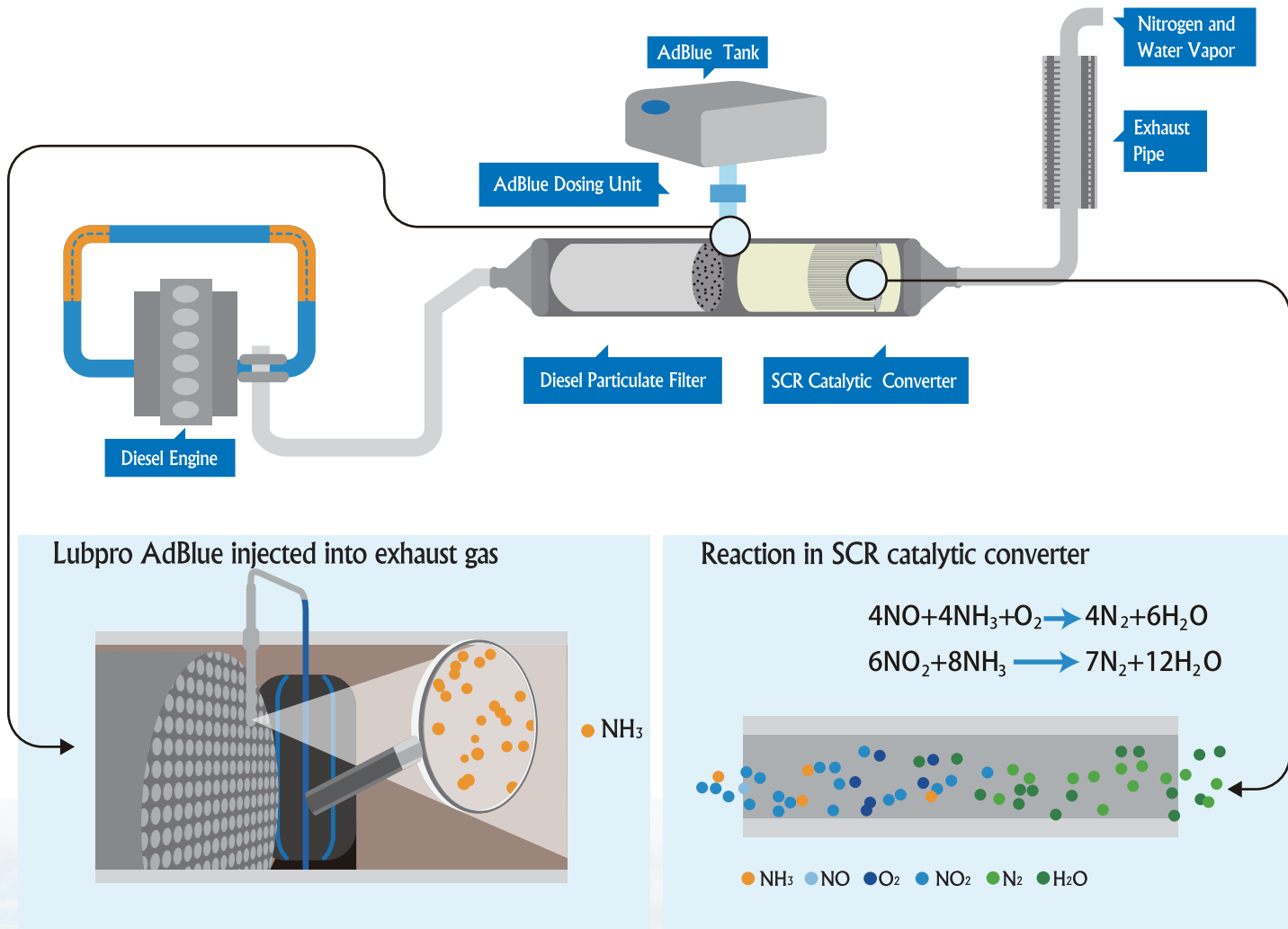


Agriculture

Lubpro supplies AdBlue solution in 10 litre plastic jerrycans and 1000 litre IBC containers that can be delivered to any location the customer finds convenient.



## How Lubpro AdBlue works



**Lubpro AdBlue  
ensures emission standards are met  
and provides economic benefits.**

- ✓ Avoidance of costly vehicle replacement
- ✓ Lower maintenance cost
- ✓ Ensured SCR system efficiency
- ✓ Guaranteed life of SCR system
- ✓ Enhanced fuel economy

**If the quality of AdBlue  
is not maintained,  
NOx might increase and  
the SCR system might be endangered.**

- × Reduced life of SCR system
- × Increased pollutant level
- × Clogged catalytic converter
- × Clogged exhaust
- × Clogged injector





## Quality Reports--SGS Test

Lab Reference No.:MNT226007QD

SGS Report No.:MCHQD2211668-01A

Testing Report Page: 2 / 2

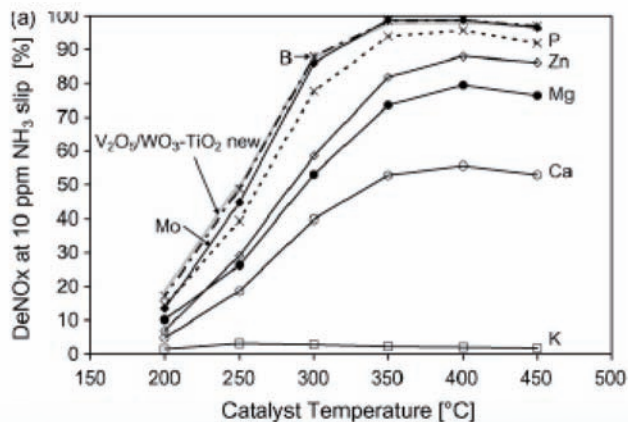
Test Items	Unit	Result	Standard No.
		/	
Urea Content	%	32.50	ISO 22241-2:2019(E)
Alkalinity(as NH <sub>3</sub> )	%	0.004	ISO 22241-2:2019(E)
Refractive Index(20°C)	/	1.3830	ISO 22241-2:2019(E)
Insoluble Matter	mg/kg	2.0	ISO 22241-2:2019(E)
Phosphate(as PO <sub>4</sub> )	mg/kg	<0.5	ISO 22241-2:2019(E)
Biuret	%	0.20	ISO 22241-2:2019(E)
Aldehyde(as HCHO)	mg/kg	1.5	ISO 22241-2:2019(E)
Ca	mg/kg	<0.5	ISO 22241-2:2019(E)
Fe	mg/kg	<0.5	ISO 22241-2:2019(E)
Cu	mg/kg	<0.2	ISO 22241-2:2019(E)
Zn	mg/kg	<0.2	ISO 22241-2:2019(E)
Cr	mg/kg	<0.2	ISO 22241-2:2019(E)
Ni	mg/kg	<0.2	ISO 22241-2:2019(E)
Al	mg/kg	<0.5	ISO 22241-2:2019(E)
Mg	mg/kg	<0.5	ISO 22241-2:2019(E)
Na	mg/kg	<0.5	ISO 22241-2:2019(E)
K	mg/kg	<0.5	ISO 22241-2:2019(E)
Identity	/	See remark	Refer to ISO 22241-1:2019(E)

Remark : The test result of Identity was performed by SGS internal other laboratory.

Identity Conclusion: Test Sample's spectrum was consistent with the contrast sample's spectrum.

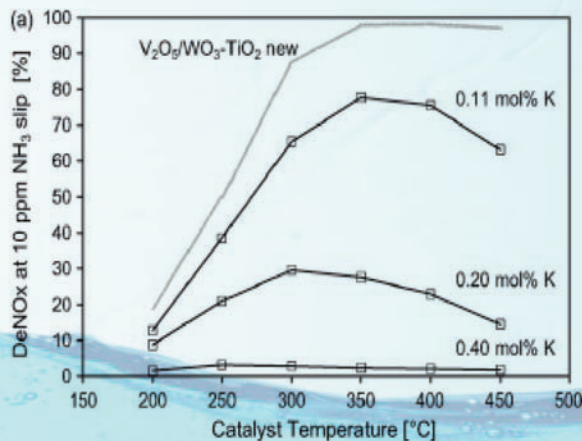
\*\*\*\*\*The end\*\*\*\*\*

## The impact of Metal ion content



The harm degree for catalytic activity: K > Ca > Mg > Zn > P...

## Potassium ion concentration



## Effect of other index

### ■ Insoluble matter or impurities of Adblue

Insoluble matter or impurities will reduce the atomization effect of the nozzle in the SCR system.

Too much insoluble matter or impurities will cause blockage of catalyst pores.

Excessive insoluble matter or impurities can cause nozzle blockage and damage.

### ■ Alkalinity can effect the Shelf Life of AdBlue.

### ■ Phosphate can cause SCR system catalyst poisoning.

### ■ Aldehydes can affect the coating of catalysts in SCR systems.

### ■ High biuret content cause clogging of SCR system.



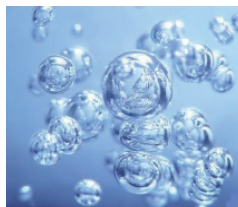
### **Lubpro AdBlue compatible with all diesel SCR systems**

Lubpro AdBlue adopts ultra pure filtration technology can filter out extremely fine impurities, biuret, colloid and macromolecular metal ions in the solution, greatly improve the purity of urea solution, improve the conversion efficiency and reduce crystal scaling.

Composition of DEF:

Ultra pure urea: 31.8% -33.2%

Ultra pure water: 66.8%-68.2%



Lubpro nano emulsification technology can encapsulate urea molecules with water molecules, improve the catalytic efficiency of urea hydrolysis, especially realize catalytic reduction trigger at low temperature.

ultrafiltration technology can filter out very fine colloidal substances and suspended particles, making the solution more pure.

## Quality Assurance

Only high-purity, technical SCR automotive grade urea is used to manufacture AdBlue Altra Pure.

Manufactured in accordance with

**ISO 22241,**

**ISO 9001,**

**ISO 14001,**

**IATF 16949** standards.

For your peace of mind, every batch of AdBlue Altra Pure is tested and certified before sale, by SGS laboratory, qualified to test “Selective catalytic reduction (SCR) urea solution”.

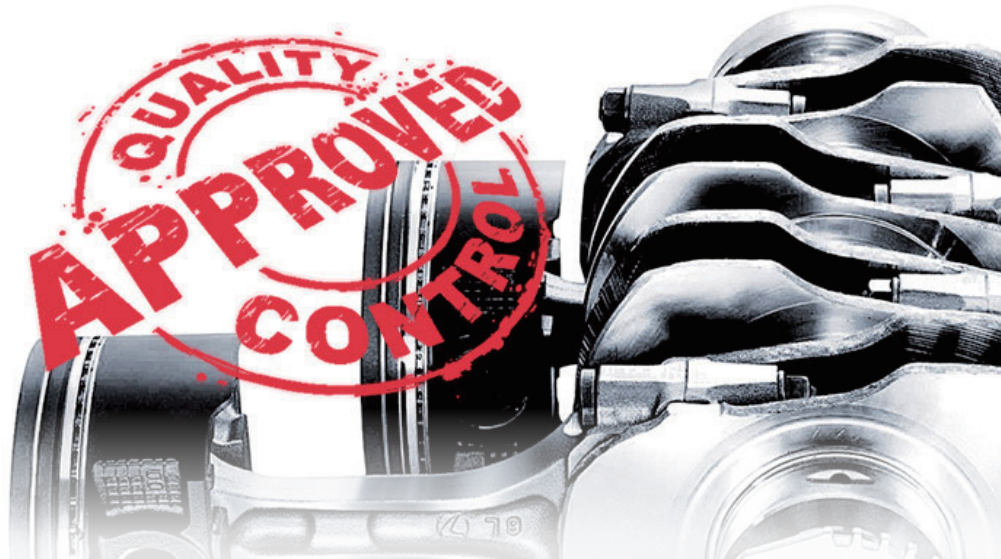
### **Performance Levels/Approvals:**

**ISO 22241-1 Quality**

**AUS32 – DEF**

**DIN 70070**

**VDA-AdBlue**





## **Sound SCR system protection**

**Tested purity of AdBlue by Lubpro guarantees that the SCR system is not harmed**



## **Reduced fuel consumption**

**AdBlue by Lubpro combined with SCR technology reduces the fuel consumption without affecting the engine output**



## **Meeting latest emission standards**

**AdBlue by Lubpro meets all Euro 4, 5 and 6 standards**





## Reduced emissions

The amount of NO<sub>x</sub> in the exhaust gas can be reduced by 85 - 95%



## Long shelf life

Provided that the recommended storage temperature is maintained, AdBlue by Lubpro ensures a shelf life of at least 15 months



## Environmental friendliness

AdBlue by Lubpro is easily decomposed by microbes and poses very low hazard to water and soil

