

► Go online for some handy GreenChem AdBlue® videos:

www.greenchem-adblue.com/non-road-mobile-machinery/adblue-information



For further information
contact your local AGCO dealer

AdBlue® is a registered trademark of the Verband der Automobilindustrie e.V. (VDA).

Agricultural Driver's Guide to
AdBlue®

Have you heard about an operating fluid called AdBlue®? It is required in most new tractors, combines and other diesel powered farm machinery. Whether you have or not, it is likely you will soon be driving farm machinery that will require this operating fluid and here we explain what it means to you as an operator.

What is AdBlue®?

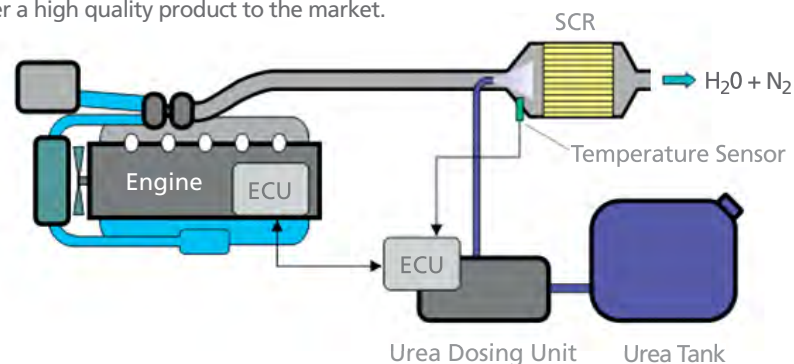
AdBlue® (a registered trademark of the VDA) is a vehicle operating fluid for new engine technology. It is based on a high purity urea solution, therefore it is not a fuel, nor is it mixed with fuel. If you have a machine that requires AdBlue® you will need to dispense this product into a separate tank which will be located on the vehicle, identified by its blue cap.

Who are GreenChem Solutions Limited?

GreenChem is an innovative producer of AdBlue®, and the second largest supplier of AdBlue® in the world. As the only company in the world devoted to AdBlue® they are able to offer a high quality product to the market.

Why do I need AdBlue®?

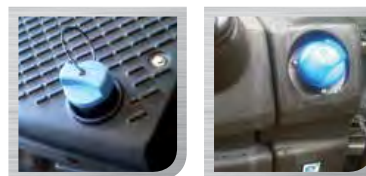
Over the past 15 years exhaust emission limits have been lowered to help reduce the amount of harmful toxic gas (including NOx) that is released into the atmosphere. Farm machinery manufacturers have had to re-develop their engines to comply with EU legislation Tier IIb and Tier IV. A new technology called SCR (Selective Catalytic Reduction) is a proven system at reducing NOx emissions from exhaust gases.



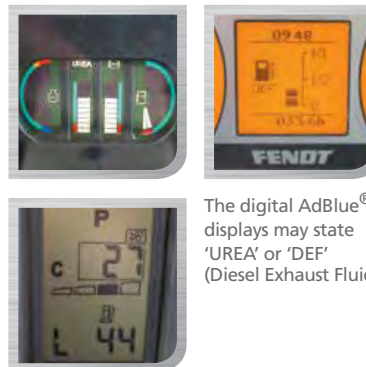
How does it work?

SCR is now fitted to most new drivable machinery coming off the production line and it requires a re-agent known as AdBlue® to be sprayed into the exhaust system. AdBlue® is used to create a chemical reaction in the catalyst so that NOx gases are converted to harmless steam and nitrogen, which are emitted from the exhaust pipe.

Examples of AdBlue® tanks and filler caps



Examples of digital AdBlue® displays



The digital AdBlue® displays may state 'UREA' or 'DEF' (Diesel Exhaust Fluid)

How do I know if I need AdBlue®?

Your local AGCO dealer will advise you about your new machine and whether it needs AdBlue® at the time of purchase. Your dealer can also provide you with the AdBlue® itself and any associated pumping equipment.

The next vehicle you drive may need AdBlue® so familiarise yourself with what to look out for:

- A plastic AdBlue® tank, smaller than the fuel tank, will be fitted on the body of the vehicle, it will have a blue cap for easy identification
- There will be an AdBlue® digital display located in the cab indicating the level of AdBlue in the tank
- Tank caps and digital displays may differ in look and position dependant on the vehicle make/brand

Do not operate your vehicle without AdBlue® in the tank; doing so will cause damage to the catalytic converter, filters and nozzles. A vehicle operating without AdBlue® may enter crawler-mode and will be operating illegally.



Why should I be careful about which AdBlue® I use?

It is crucial that you only use VDA licensed AdBlue® available from a reputable dealer and in dedicated AdBlue® packaging. Contaminants from unsealed packages will cause problems to your SCR system. It is also important not to use old diesel/oil/other containers to transfer AdBlue®. It must remain at its high specification state to be compatible with your SCR system. Using a mix of any other type of urea will cause damage to your catalyst and injector systems. Repairs will not be covered by your warranty. It is imperative to respect the investment that you have made in the purchase of your vehicle. Make sure only **AdBlue® to ISO 22241** standard is used, not other solutions.

AGCO's recommended source for high specification AdBlue is GreenChem Solutions Limited. This is available from your local AGCO dealer. To locate your nearest AGCO dealer please check our locators on

- masseyferguson.co.uk
- fendt.co.uk
- valtra.co.uk
- challenger-ag.com

GreenChem Solutions pride themselves in delivering high quality AdBlue® products, guaranteed to be contaminant free and to the highest specification for your SCR needs.

Frequently asked questions

What is AdBlue® and how should I use it?

AdBlue® is a vehicle operating fluid used to reduce emissions, it is a high purity urea solution and is not a fuel additive, nor does it touch the fuel system. It is a mix of demineralised water (67.5%) and urea (32.5%) to a specific DIN specification. AdBlue® is contained in a separate tank on the machine's chassis. It is sprayed into the exhaust gases via the SCR system which is installed when the vehicle is being built. Refill the AdBlue® tank when the display indicates that the tank is nearing empty. Do not operate the machine without AdBlue® in the tank. **Never fill the diesel tank with AdBlue® or vice-versa.** Do not dilute the AdBlue®.

How much AdBlue® will I need?

You will not need to replenish your AdBlue® tank every time you refill with diesel. Typical AdBlue® to fuel usage is between 4% - 6%, this will differ depending on a number of factors including machine-type and the type of work being undertaken.

Will it cost me more to run my machine?

AdBlue® will reduce your diesel consumption, making it more cost-effective to run your machine. Diesel consumption can be reduced by between 5% and 7% depending on machine-type and the type of work being undertaken.

What happens if I run out of AdBlue®?

You should always carry a spare 10 litre can of AdBlue® with you in case of emergencies. If you run out, drive immediately to your nearest AdBlue® supply to refill. Your vehicle will be operating illegally if you are driving without AdBlue® and the injector nozzle and catalyst will suffer damage.

Is AdBlue® harmful?

AdBlue® is not harmful to humans or animals. If you get it on your skin or clothes, rinse with plenty of tap water as it may irritate due to the ammonia content. It is not poisonous but if ever consumed accidentally you should drink tap water and consult a doctor. Clean spillages immediately with plenty of water as left untreated it can corrode surfaces.

Is AdBlue® classified as hazardous?

No. It is not subject to any hazardous regulations. It is a non-toxic, non-flammable, non-explosive fluid, it does not burn and will not aid combustion. It is therefore very safe to use.



10 & 20 litre cans

How long does it keep for?

AdBlue®, if stored according to guidelines, will keep for at least 12 months.

How do I store it?

AdBlue® should ideally be stored indoors, between 0 - 30°C, out of direct sunlight and properly sealed when not in use.

Can I decant it into other containers?

NO - the AdBlue® may become contaminated, and other containers may not be suitable. Always keep it in its original HD plastic containers and use properly approved pumping equipment. The ammonia content in AdBlue® will cause etching to the following materials: brass, copper, aluminium, mild steel, which in turn will contaminate the product, potentially harming your vehicle.

Can I leave it in my combine harvester over winter?

AdBlue® will remain in good condition for 12 months if kept sealed. Before operating your machine we recommend you test the AdBlue® (kits are available from your AGCO dealer) if it has been left un-used over a period of time. We also recommend you start your combine during the winter to create movement in the AdBlue®.

Your AdBlue® needs covered by your local AGCO Dealer

GreenChem AdBlue® pack sizes available:

- 10 litre can – ideal as an emergency supply (with its integrated spout) to keep with you in the vehicle
- 20 litre can – suitable for one machine and easy to store, the 20lt container provides comfort and clean refilling with its integrated spout
- 200 litre drum – keep on site for top-ups, ideal if you have one or two mid-range SCR machines
- 1000 litres (known as an IBC) – a cost effective option for those with 3 or more larger SCR machines. Gravity feed (bottom outlet) IBC's also available
- Bulk Supply – the best option if you have large fleets of SCR vehicles or for contractors, etc

To identify the best size for your needs, calculate the litres of fuel you use annually – your AdBlue® usage will be 4% - 6% of this figure – remember you should use your AdBlue® within 12 months of opening to avoid wastage.

Other Equipment Available:

- 10 litre and 20 litre cans supplied with an integrated spout
- Pumps - Plastic lever drum pump with hose
- PRO Plus Electric IBC Pump - with auto cut off nozzle and digital flow meter (self priming)
- PRO Electric IBC Pump - non cut off nozzle, no flow meter (self priming)
- Rotary manual IBC pump

AdBlue® Testing Equipment

These are ideal for ensuring your AdBlue is good to use, at the correct concentration and uncontaminated:

- Refractometer to test the urea concentration of the AdBlue®
- AdBlue® test kit, including hydrometer and oil paper strips
- AdBlue® test facility - take a sample and have it tested by the experts. Results include colour, appearance, oil/fuel contamination, precipitate, odour, urea concentration %, conductivity and pH

Should you have any further questions, or require more information, please do not hesitate to contact your local AGCO dealer who will be happy to help.



1,000 litre IBC
(intermediate bulk container)



200 litre drum