

What is AdBlue[®]

AdBlue is synthesized from 32.5% urea and 67.5% deionized pure water.

AdBlue is a registered trademark of the German Automobile Industry Association (Verband der Automobilindustries). It must be approved by the German Automobile Industry Association to meet the ISO 22241 standard before it can be used for authorization.



AdBlue[®] Q&A

Q1. Is there another name for AdBlue[®]?

A1. It is called DEF (Diesel Exhaust Fluid) in the United States and Canada, and AdBlue[®] in Europe; China named it as NO_x Reducing Agent in 2012; the scientific name is AUS32; Taiwan calls it urea solution for vehicles.

Q2. What is AdBlue[®] (catalyst reducing agent / urea solution for vehicles)?

A2. AdBlue[®] is a odorless and colorless transparent solution, which is synthesized from 32.5% industrial urea and 67.5% deionized water. It is stored in the exclusive AdBlue storage bucket on the vehicle. It will be mixed with exhaust gas and enter the SCR system. NO_x (nitrogen oxides) is converted into harmless nitrogen and water, and meets Euro IV / V / VI exhaust emission standards.

Q3. What is the consumption ratio of catalyst reducing agent (AdBlue[®])?

A3. The consumption of AdBlue[®] varies according to the amount of vehicle exhaust emissions and different EU regulations and standards. For example, heavy trucks need about 4 to 6 liters of AdBlue[®] for every 100 liters of diesel consumed.

Q4. AUS32 / DEF / AdBlue[®] International Standard Specification and Certification?

A4. International standards and specifications conform to ISO 22241 / DIN 70070: From the raw material end to the end customer, establish related systems such as production history, sampling inspection, and distribution audit.

In addition, the German Automobile Industry Association (VDA) conducts audits at the plant. After passing the audit, VDA QMC certificates, American Petroleum Association (API), and other certification agencies are given.

Q5. What will happen if I forget to add AdBlue®?

A5. If the catalyst reducing agent (AdBlue®) is not filled in time, the OBD system on the vehicle will display a fault light, the engine torque output will decrease, and NO_x does not meet the EU exhaust emission standards, and it will also be subject to EPA's report.

Q6. Standards for the main indicator components of catalyst reducing agent (AdBlue®) aldehyde biuret and insolubles?

A6. Poor quality catalyst reducing agent (AdBlue®) can damage the SCR system, block the outlet channels, and cause irregular exhaust. According to international ISO22241 standards, aldehydes must not be higher than 5 ppm, biuret content must not be greater than 0.3%; insoluble matter must not be greater than 20 mg / kg. General agricultural urea contains high formaldehyde, so it cannot be used in vehicles.

Q7. What is "NO_x"?

A7. Nitrogen oxides (NO_x) are nitrogen oxides, which are common atmospheric pollutants and one of the main constituents of acid rain.

Q8. How are nitrogen oxides (NO_x) produced?

A8. The main sources of nitrogen oxides (NO_x) are pollution caused by general industrial activities, vehicles using engines (engines) and aircraft, and the burning of fossil fuels.

Q9. Is NO_x harmful to human body?

A9. Long-term exposure to nitrogen oxides (NO_x) can cause chronic laryngitis, chronic bronchitis, and can also cause varying degrees of neurasthenia and tooth erosion. In addition, it can induce lung cancer, become damaged in children's lungs, and form acid rain that can cause baldness.

Q10. The amount of nitrogen oxides emitted by domestic vehicles?

A10. According to the national motor vehicle statistics of the Ministry of Communications, although the proportion of diesel vehicles is not high, according to the national gas station sales statistics, diesel sales account for about 30% of the total sales. The particulate pollutants produced by diesel buses are about the same as those of

all other vehicles, and sulfur oxides and nitrogen oxides are higher than those of all other vehicles, so their pollution emissions are also considerable.

Q11. EU's regulatory deadline for NOx pollution from heavy-duty diesel vehicles?

A11. Euro IV introduced in 2005: standard 3.5 g / kWh: Euro V introduced in 2008: standard 2.0 g / kWh: Euro VI introduced in 2013: standard 0.25 g / kWh

Q12. What is a diesel engine car?

A12. Diesel engines have better fuel-saving efficiency, so they can reduce carbon dioxide emissions, and diesel engines can provide high torque at low and medium speeds, which can provide better practicality for daily driving, especially for long mileage Buses and trucks are powered by diesel engines. Currently, European vehicle exhaust regulations give priority to reducing carbon emissions, so diesel engines have been used in passenger cars for a long time.

Q13. What is the difference between a diesel engine and a gasoline engine?

A13. Diesel engines have a thermal efficiency of 40% to 50%, while gasoline engines have only about 30%, so diesel engines perform better than gasoline engines in terms of fuel consumption. CO2 emissions from diesel engines are about 20% to 0% less than gasoline engines. In addition, diesel engines are more fuel efficient, and drivers with more mileage requirements are more economical.

Q14. How to reduce or reduce NOx emissions? (EGR v.s SCR)

A14. At present, the two most common systems are: EGR (Exhaust Gas Recirculation) and SCR (Selective Catalyst Reduction-Filling with Urea Solution), of which SCR technology is currently the only one that meets EU Environmental Regulations 4/5 (Euro IV, V) and Euro VI and EPA 2010/2014 emission standards, the most economical and reliable choice.

Q15. What is an SCR system and how does it work?

A15. SCR (Selective Catalytic Reduction) system includes AdBlue® and selective catalyst reducer. It uses ammonia or urea solution (AdBlue®) to chemically react with nitrogen oxides, which will poison toxic nitrogen oxides (NOx) Produces chemical reduction and converts into nitrogen (Nitrogen) and water without affecting the natural environment. However, pure ammonia is a toxic gas and is not easy to store. Therefore, AdBlue® is

mainly used as a reactant of the SCR system, which has high stability and no toxicity, and is easy to store and transport.

Q16. When the catalyst reducing agent (AdBlue®) is filled with diesel fuel, is it confusing?

A16. The diameter of the nozzle of the diesel cylinder is larger than the pipe of the catalyst reducing agent (AdBlue® / DEF) cylinder. Therefore, the diesel will never be injected into the catalyst reducing agent (AdBlue® / DEF) cylinder.

Q17. What is OBD vehicle automatic diagnosis system?

A17. The OBD (On-Board Diagnostics) vehicle automatic diagnostic system is mandatory for diesel vehicles in the fifth phase of the European Union. For vehicles with SCR systems, the OBD system is used to strengthen monitoring and management. This system will issue warnings to remind drivers to make timely injections. Vehicle reducing agent (AdBlue®).

Q18. How to control the quality of AdBlue®?

A18. Each batch of catalyst reducing agent (AdBlue®) must be analyzed by UV and insoluble matter through an ICP substance detection analyzer before leaving the factory to ensure that the metal content in the catalyst reducing agent (AdBlue®) is controlled within the standard range and meets ISO22241 Standards are also regularly verified by SGS (Third Party Certification Unit).

Q19. The CR system must be filled with a catalyst reducing agent (AdBlue®). Will the owner's cost of the car increase? (Diesel fee and AdBlue fee)

A19. No, vehicles using SCR systems and non-SCR systems will have a fuel saving effect of 7% to 8%. If you deduct the 3% to 5% AdBlue fee, the actual total cost will even save 3% to 4%, and the catalyst reducing agent (AdBlue®) Unit price is lower than diesel!

Q20. How to save the catalyst reducing agent (AdBlue®)?

A20. Avoid light or direct sunlight as much as possible. It is recommended to keep the temperature between -5 ° C to 25 ° C. Below 5 ° C it is easy to crystallize. In addition, avoid direct exposure of the product to the atmosphere. The filling equipment should also avoid contact with other pollutants such as rain , Tap water, diesel, motor oil, etc.

Q21. What are the distribution methods for AdBlue®?

A21. Intermediate Bulk Container (IBC) is provided according to the different usage of customers; there are also small packages, 10 liters or 20 liters of water bags, which are suitable for petrol station retail and provide to consumers with a small demand.

If you have any problem we can serve for you, please contact us on the official website

<https://adblue.novax-material.com/>

