

# DEF FAQ



## What is Diesel Exhaust Fluid (DEF)?

Diesel Exhaust Fluid or DEF is a high purity chemical solution containing 32.5% urea mixed with high purity deionized water.

Urea is the active ingredient of Diesel Exhaust Fluid. Urea is created from synthetic ammonia and carbon dioxide when subjected to high heat and pressure and can be produced as a liquid or solid. Synthetic urea is used mainly in fertilizers but is used in plastics, animal feed, cleaning agents, and pharmaceutical applications.

## What would I use DEF for?

Diesel engines are required to meet stringent emissions requirements in 2010. Many diesel engine manufacturers have chosen a technology called Selective Catalytic Reduction (SCR) to meet these requirements. When added to the exhaust gases Diesel Exhaust Fluid reduces the NOx to the EPA required near-zero levels. If you purchase a car, truck, tractor or any diesel powered product with SCR technology after 2010 it will require Diesel Exhaust Fluid.

In addition to reducing NOx emissions, the use of DEF and SCR technology will typically result in improved fuel mileage

for most vehicles. The amount of improvement will vary based on your equipment.

## Do I add this fluid to diesel fuel?

No, DEF should not be added to the fuel tank. Vehicles manufactured with SCR technology are designed with a separate urea tank to hold Diesel Exhaust Fluid. The fluid is sprayed into the exhaust system.

## What are the characteristics of DEF?

DEF is classified as a non-hazardous product. It is an odorless, colorless, non-flammable, nontoxic solution.

DEF will begin to crystallize at 12 degrees F. If the urea freezes it will not separate or lose its strength. Diesel equipment has heated tanks and supply lines that are designed to freeze and thaw with no performance issues.

It can lose its potency if stored for prolonged periods over 86 degrees F. The shelf life will depend on the temperature at which product is stored, however product older than one year is not recommended to be used.

## How often will refueling of DEF be required?

The consumption rate of DEF is between 2-4% of the diesel fuel consumption. For example, for every 100 gallons of

diesel fuel consumed, between 2 and 4 gallons of Diesel Exhaust Fluid will be system. A typical diesel truck could go about 300 miles on one gallon of Diesel Exhaust Fluid. The refueling interval will depend on the size of tank you have.

## How much does DEF cost?

Cost can depend on a variety of factors. Please contact your local sales representative.

## How do I obtain DEF?

If you are truck driver, DEF will be available at many of the locations where you buy diesel fuel. If you have a fleet, Brenntag can provide Diesel Exhaust Fluid in a variety of package and dispensing solutions that meet your needs.

## How will DEF be stored & dispensed?

DEF is stored in dedicated containers and dispensed through dedicated dispensing units.

## How is the quality of DEF insured?

DEF is manufactured to strict ISO 22241, AUS 32 and DIN 70070 standards. These standards ensure proper manufacturing, testing and handling procedures. Diesel Exhaust Fluid should only be purchased from companies that provide proof that they follow these standards.