

THE  
EQUITY

DEF

*Clean - Filtered at Delivery*



## What is DEF?

DEF is Diesel Exhaust Fluid. Diesel Exhaust Fluid is a clear, non-toxic, non-flammable and non-hazardous solution utilized by Selective Catalytic Reduction (SCR) systems to reduce Nitrogen Oxide (NO<sub>x</sub>) emissions. DEF is comprised of 32.5% high purity urea and 67.5% deionized water. Deionized water is water that has been treated to remove all ions - typically, meaning all of the dissolved mineral salts - to create very pure water.

## What is a Selective Catalytic Reduction (SCR) system?

SCR is a technology that uses a urea based diesel exhaust fluid (DEF) and a catalytic converter to significantly reduce oxides of nitrogen (NO<sub>x</sub>) emissions. SCR is the leading technology being used to meet 2010 emission regulations.

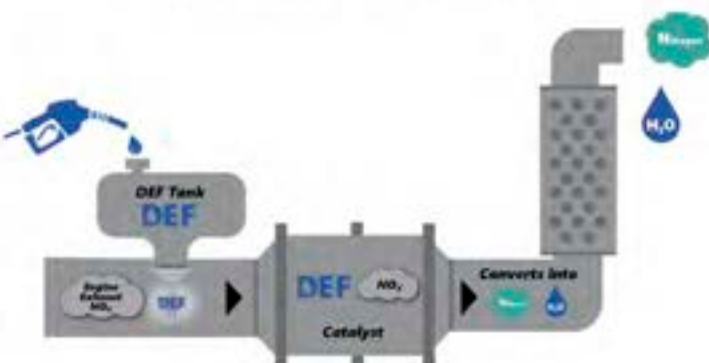
## How does an SCR system work?

The purpose of the SCR system is to reduce levels of NO<sub>x</sub> that are harmful to our health and the environment. SCR is the after treatment technology that treats exhaust gas downstream of the engine. Small quantities of DEF are injected into the exhaust upstream of the catalyst, where it vaporizes and decomposes to form ammonia and carbon dioxide. The ammonia (NH<sub>3</sub>) is the desired product which in conjunction to the SCR catalyst, converts the NO<sub>x</sub> to harmless N<sub>2</sub> and water (H<sub>2</sub>O)

## Storage

- **Store DEF in a cool, dry location out of direct sunlight.** The ideal temperature range is 12-86 degrees F (-11-30 degrees C).
- **DEF can be stored for up to one year** in ideal climate conditions.

## How does DEF work?



- Commercial Vehicles
  - Large or Heavy goods vehicles (HGVs), such as semi trucks
  - Light commercial vehicles (LCVs), such as vans and box trucks
  - Passenger carrying vehicles (PCVs), such as buses, coaches and mini-buses.

## Delivery

Bulk  
Totes\*  
Barrels  
2.5 Gallon Jugs

\*No Tote Exchange





## Do's & Don'ts of DEF

- **Keep the DEF tank fill area and nozzle clean.** DEF is super-sensitive to airborne and residue contamination. Contaminated DEF will affect SCR system performance and lead to engine de-rating and even engine damage.
- **Store DEF in dedicated containers,** preferably stainless steel drums or HDEP plastic totes or gallon jugs.
- **DEF is not toxic, but is corrosive to metals** such as carbon steel, aluminum, copper and zinc. Never use containers that might have been used to store other fluids.
- **DEF freezes at 12 degrees F (-11 degrees C)** and turns slushy, but this doesn't affect performance. If storing DEF in freezing temps, make sure it is in expandable containers. Never put fuel additives in DEF.
- **Monitor DEF quality with a digital refractometer.** The ideal concentration is between 32.5 and 37 percent urea.
- **Top off the DEF tank daily** to prevent condensation, which can degrade DEF quality
- **Low DEF levels will be indicated** by a dashboard light. If the DEF tank is empty, the engine will still run, but will start de-rating in a few hours and continue until the DEF is replenished.

## Handling

- DEF is non-toxic, non-flammable and non-hazardous
- DEF does cause skin and eye irritation
- DEF is harmful if swallowed
- Always wash hands thoroughly after handling DEF.
- Do not eat, drink or smoke when using this product.
- Do not breathe dusts or mists.
- Always use proper personal protective equipment when handling DEF.



## Applications

- Commercial Vehicles
  - Semi Trucks
  - Vans & Box Trucks
  - Buses, Coaches, & Mini-Buses.
- Trains
- Non Road Vehicles
  - Farm Machinery
  - Mobile & Static Cranes
  - Airplanes, Helicopter, & Boats
  - Construction Equipment
  - Mining Machinery
- Diesel Passenger Vehicles
  - SUVs
  - Pickups
  - Campers
  - Cars

*To Schedule Your  
DEF Delivery Call:*

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