

Diesel Exhaust Fluid (DEF) Information

Diesel Exhaust Fluid (DEF) is a high-purity 32.5% urea solution designed for use in Selective Catalytic Reduction (SCR) systems on modern diesel engines. DEF helps reduce harmful nitrogen oxide (NOx) emissions and supports compliance with EPA emissions regulations.

DEF is automatically injected into the exhaust stream of diesel-powered vehicles and equipment equipped with SCR technology. The fluid converts NOx emissions into harmless nitrogen and water vapor.

What is DEF?

Diesel Exhaust Fluid (DEF) is a non-toxic, colorless solution made from:

- 32.5% high-purity automotive-grade urea
- 67.5% demineralized water

DEF is not a fuel additive and should never be added to a diesel fuel tank. It is stored in a separate DEF tank on SCR-equipped diesel vehicles and equipment.

Common Applications

- Heavy-duty trucks
- Construction equipment
- Agricultural machinery
- Fleet vehicles
- Diesel generators
- Off-road equipment

Product Specifications

Parameter	Specification Limit
Urea Concentration	32.5% ± 0.7%
Refractive Index at 20°C	1.3814 – 1.3843
Free Ammonia (Alkalinity)	0.2% max
Biuret	0.3% max
Aldehydes	5 ppm max
Insoluble Matter	20 ppm max
Phosphates	0.5 ppm max
Calcium	0.5 ppm max

Iron	0.5 ppm max
Copper	0.2 ppm max
Zinc	0.2 ppm max
Chromium	0.2 ppm max
Nickel	0.2 ppm max
Aluminum	0.5 ppm max
Magnesium	0.5 ppm max
Sodium	0.5 ppm max
Potassium	0.5 ppm max
Water Quality	DEMIN – ISO 3696 Applicable

Key Benefits

- Reduces harmful NOx emissions
- Supports EPA emissions compliance
- High-purity formulation for SCR system protection
- Compatible with SCR-equipped diesel engines
- Helps maintain engine performance and fuel efficiency
- Suitable for commercial, industrial, and agricultural applications

Handling & Storage

- Store in a cool, dry, well-ventilated area
- Protect from contamination and direct sunlight
- Use only clean DEF-compatible equipment
- Recommended storage temperature: 12°F to 86°F (-11°C to 30°C)

Safety Information

Please obtain and review the Safety Data Sheet (SDS) for important environmental, health, safety, handling, and storage information.