

LTZ Green DEF™

DIESEL EXHAUST FLUID (DEF) PRODUCT DATA SHEET FOR ON/OFF-ROAD VEHICLES

- ✓ **Carbon-Negative**
- ✓ **300% CO² emission reduction**
- ✓ **ISO 22241 Compliant**
- ✓ **API & VDA Compliant**
- ✓ **100% Pure**

LTZ is a premier distributor of diesel exhaust fluid and is proud to offer this trusted emission-control solution to its North American customers.

- ➔ **LTZ Green DEF is chemically identical to conventional, fossil DEF.**
- ➔ **LTZ Green DEF is ISO 22241 compliant.**
- ➔ **LTZ Green DEF is the only DEF product that offers up to a 300% CO₂ reduction.**

What is Green DEF?

Green DEF is a diesel exhaust fluid manufactured with 32.5% high purity urea and 67.5% deionized water designed for use in passenger vehicles, trucks, construction, and agricultural equipment. It is compatible with all Tier 4 final compliant equipment using Selective



Catalytic Reduction (SCR) technology. Green DEF prevents SCR breakdown, reduces harmful nitrogen oxide emissions by 90%, and even improves fuel efficiency by up to 8%. It is a simple-to-use, low-cost, clean solution for meeting the 2010 EPA Clean Air Act requirements.

Applicable Climate Benefits

Green DEF produced from biomethane can be used today as it is chemically identical to the fossil DEF product. This enables the continued use of the existing supply chain, infrastructure, and diesel engine technology. By switching production from natural gas to biomethane, CO₂ emissions of DEF are reduced over its lifecycle. Even better, by using biomethane produced from manure it becomes CO₂ negative (-0.8 kg CO₂/kg DEF) – reducing emissions by up to 300% versus fossil DEF.

The more a fleet drives using green DEF, the more CO₂ is sucked out of the atmosphere thus actively helping to reverse climate change. For example, for a truck running around 60,000 miles p.a. using about 30 tons of diesel p.a., its DEF consumption will be around 1.5 tons per

year. Using green DEF instead of fossil DEF mitigates 1.8 tons of CO2 emissions per year per vehicle.

Why Diesel Exhaust Fluid matters

The purity of diesel exhaust fluid is important to maintaining a functioning SCR system. Any chemical impurity in DEF can lead to the failure of an SCR system. That is why it is very important to use only DEF products that meet ISO 22241-1 standard. Green DEF is a stable, colorless, nonflammable, nontoxic fluid. Green DEF complies with the ISO-22241-1 specification for DEF, is VDA AdBlue compliant and meets or exceeds OEM specifications. We ensure a quality product with an extensive, redundant quality management process, controlling specifications through the entire product channel—from manufacturing through distribution to the end-user.

Physical & Chemical Properties

Boiling Point	>212 ° F
Crystallization Point	12 ° F
Pounds/Gallons	9.10
Specific Gravity	1.09 – (Water = 1)
Vapor Density	0.6 H2O,>1 – (Air = 1)
Water Solubility	100%
Appearance	Colorless Clear Liquid
Odor	None to Slight Ammonia

Storage & Handling Instructions

DO NOT MIX WITH DIESEL FUEL.

Optimal storage temperature: -11° C to 25° C. DEF will freeze at -11°C. Avoid direct exposure to sunlight.

ISO 22241 standards require the use of only stainless steel and/or certain plastics, such as high-density polyethylene (HDPE) or

polypropylene, to store DEF in order to prevent contamination and SCR failure.

Materials specifically not recommended include non-ferrous metals and alloys (copper, aluminum, magnesium, silver, zinc, and lead), solders containing non-ferrous metals, and nickel-coated plastics and metals.

See our Material Safety Data Sheet on our website for more information on material compatibility and exposure instructions.

Scopes in scope

The Greenhouse Gas Protocol is the world's most widely used carbon emissions reporting standard. It uses a 3 scopes approach for classifying your emissions into direct emissions from owned or controlled sources, and indirect emissions linked to the value chain of the reporting company. If you run your own diesel vehicle fleet, the high benefits of carbon-negative Green DEF are reported into the scope 1 "direct" and scope 3 "indirect" emissions categories. If a subcontractor of yours uses Green DEF for its fleet operations, you report these benefits into your scope 3 "indirect" emissions category.

Contact

Get in touch with us to find out how our specialty products can help your organization to reduce its carbon footprint: www.ltz.energy/letstalk

LTZ Energy Solutions LLC

www.ltz.energy

hello@ltz.energy

+1 (212) 287-7707

651 N Broad St

Middletown DE 19709

United States of America

© 2022, LTZ Energy Solutions LLC
All Rights Reserved.