

Diesel Exhaust Fluid (DEF) Guide

Definition

A specific composition of urea for application in transportation to reduce the amount of nitrogen oxides (NOx) emitted into the air by diesel engines. DEF is a high purity chemical, comprised of 32.5% urea and 67.5% de-ionized water.

Package Sizes

Diesel Exhaust Fluid is packaged in 2.5 Gallon Jugs, 55 Gallon Drums, 330 Gallon Totes, Mini-Bulk and Bulk. All drums and totes come in both open and closed systems. *Please see below for images of each package size.*

2.5 Gallon Jug

55 Gallon Drum


330 Gallon Tote

Mini-Bulk (< 4,000 Gals)

Bulk (> 4,000 Gals)



Dispensing Solutions - OPEN & CLOSED SYSTEMS

<p>Stinger / Drum Pump</p>  <p>OPEN</p> <p>55 / 275 / 330 Gal.</p>	<p>Probe / Dip Tube</p>  <p>OPEN</p> <p>55 Gal.</p>	<p>RSV Container Valve</p>  <p>CLOSED</p> <p>55 Gal.</p>	<p>RSV Container Valve</p>  <p>CLOSED</p> <p>275 & 330 Gal.</p>
<p>Container Valve Systems</p>			

Ensure ISO 22241 DEF Purity
CLOSED, SEALED & SECURE

The Micro Matic CLOSED, SEALED & SECURE Container Valve Systems help maintain DEF purity from manufacturer to the end-user. Provides for tamper evidency and includes DEF Warranty.

** Brenntag recommends the use of closed systems.*

EPA Mandate





Diesel Exhaust Fluid is produced to an international standard (ISO 22241). In order to meet the 2010 EPA Diesel Emission Standards to reduce the amount of NOx emitted by diesel engines, several engine manufactures employed Selective Catalytic Reduction (SCR) as an after-treatment technology combined with Exhaust Gas Recirculation (EGR).

As explained by the American Trucking Association (ATA), "To reduce NOx, a small amount of DEF is injected directly into the exhaust upstream of a catalyst. The DEF vaporizes and decomposes to form ammonia (NH₃), which in conjunction with the SCR catalyst, reacts with NOx to convert the pollutant into nitrogen (N₂) and water (H₂O)."



Emerging DEF Markets - Tier Integration

The additional diesel mandates listed below will increase the need for DEF.

EPA Mandates by Diesel Market Year			
On-Highway	Off-Highway	Rail	Marine
2010	2014	2015	2016
			

DEF "On Highway" Forecast w/ Navistar

