

**DEF** is consumed at a rate of about 2-3% relative to the amount of fuel you are using. This means between 1.2 and 2.0 gallons of **DEF** will be required for a vehicle with a 65-gallon gas **tank**. If you have a five-gallon **DEF tank**, **DEF** should be **replaced** every third or fourth time you fill up.

What **happens if** my vehicle **runs out of diesel exhaust fluid**? Vehicles are equipped with a dashboard gauge to alert **you** of the **fluid** level. **If** the level becomes low, an alert will signal **you** to replenish the **fluid**. **If** the **tank** is emptied completely, vehicle power will be reduced to encourage **you** to refill the **tank**.

**DEF will** degrade over time depending on temperature and exposure to sun light. Expectations for shelf life as defined by ISO Spec 22241-3 are the minimum expectations for shelf life when stored at constant temperatures. If stored between 10 and 90 deg F, shelf life **will** easily be one year.

The key points are: **Diesel Exhaust Fluid (DEF)** must have a urea concentration of 32.5% by weight. This concentration was chosen because it has the lowest freezing temperature, 12°F. ... **IF** a product does not adhere to the ISO 22241 standards, then that **fluid** cannot by definition be called a **Diesel Exhaust Fluid (DEF)**.

The easiest way to spot **bad DEF** is to look at it. The **fluid** is naturally clear so **if** it appears cloudy or colored, it's likely contaminated or old. Contaminates, including small particles or larger rocks or dirt will also be easy to see. **If DEF** has gone **bad**; do not attempt to use it.

Must meet **ISO 22241**—Which is an international standard that defines the quality requirements for **DEF** including production, storage and distribution. The production, handling and transportation of **DEF** is governed by the **ISO 22241** standards. ... Diesel Exhaust Fluid (**DEF**) must have a urea concentration of 32.5% by weight

A. A 32.5% solution of **DEF will** begin to crystallize and **freeze** at 12 deg F (-11 deg C). At 32.5%, both the urea and water **will freeze** at the same rate, ensuring that as it thaws, the fluid does not become diluted, or over concentrated. The **freezing** and unthawing of **DEF will** not cause degradation of the product.

How to keep DEF from Freezing:

**Here are some basic instructions:**

1. Know that it will freeze. DEF is a water-based solution, so just like water, it will freeze, says Keith Kladder, marketing manager at Agco Parts North America. ...
2. Leave room for expansion. ...
3. Store indoors. ...
4. Use the right container. ...
5. Change the filter. ...
6. Check the expiration. ...
7. Handle it like fuel.

