

WINTERIZING YOUR DEF EQUIPPED EQUIPMENT

HOW SHOULD YOU PREPARE FOR WINTER?

AMERICA'S
#1
DEF BRAND

GUARANTEED PURE

Because DEF freezes at 12°F, ideally you should store DEF inside at a consistent temperature above 40°F. What if your equipment must stay outside during frigid winter months and cannot be kept from freezing? Not to worry, follow these directions* to ensure the DEF in your equipment remains pure and ready for use when needed.

TIPS

- DEF tank should remain almost full. Do not fill past the fill line. It is safe, and recommended, to leave DEF in the vehicle tank in freezing weather.
- Draining the tank is not required. Ensure the DEF pump stops running before you turn the ignition switch to the off position. Doing so makes certain the lines are clear of DEF.
- The DEF will freeze, then thaw, and not be effected. Proportions of urea and de-ionized water will remain the same after the frozen DEF thaws.

WHAT ABOUT DEF TOTES AND DRUMS?

If your garage or shop does not have space for totes and/or drums, consider using a heated blanket to keep it from freezing. DEF expands roughly 7% when it freezes. Be sure to leave room for expansion to prevent damage to the tote and drum.



Does DEF crystallize over the winter?

If tank lines are completely full or completely empty, crystallization will not occur. DEF exposure to air is the cause of crystallization.

If stored at cold temperatures, will DEF break down over time?

No - DEF is very stable and becomes even more stable when stored at cold temperatures.

DEF SHELF LIFE OVER TIME - °F

Constant Ambient Storage Temperature (°F)	Minimum Shelf Life (Months)
≤ 50°	36
≤ 77° ^a	18
≤ 86°	12
≤ 95°	6
> 95°	Check every batch before use

^a - To prevent decomposition, prolonged transportation or storage above 77°F should be avoided.

DEF is a specific mix of urea and de-ionized water (32.5% and 67.5%, respectively). Urea and de-ionized water freeze and thaw in the same proportions. When completely thawed, the proportions aren't impacted. It can freeze and thaw without losing its ability to function properly.

Does DEF lose water through evaporation?

Yes - the water in DEF will evaporate, causing the urea concentration to increase, eventually leaving urea crystals behind when completely dry.

Would urea crystals contaminate the sensor if DEF is allowed to crystallize?

No, because the dried crystallized urea will dissolve back into solution when fresh DEF is added. Again, this situation can be prevented by keeping the DEF filled to the fill line on the DEF reservoir or by completely draining the system. As it is more convenient and less wasteful, we recommend keeping the system filled with DEF during periods of inactivity.

*Always refer to your owner's manual for specific instructions and manufacturer recommendations