SHAW DEVELOPMENT

SENSOR INNOVATION. OPERATIONAL EXCELLENCE

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Diesel Exhaust Fluid

What is DEF/AdBlue® ?

- (Diesel Exhaust Fluid (DEF) is a precisely mixed solution of urea and de-ionized water that is injected into exhaust systems to reduce NOx emissions in diesel engines.
- DEF solution purity requirements are defined by the International Organization for Standardization (ISO) standard 22241-1, and are met by many brands names, including those that carry AdBlue® or API certifications
- (DEF) is commonly called Adblue® in Europe.

Is DEF Corrosive?

- DEF is not toxic, harmful or dangerous – however, it is corrosive to many different materials, including copper, brass, aluminum and carbon steel.
- Failure to use DEF-compatible materials may result in corrosion and/or contamination
- Small DEF spills can be washed away with water or wiped up (for large spills, contact your DEF supplier for advice)

Does DEF Freeze?

- DEF does freeze at 12°F (-11°C).
- Onboard DEF systems are designed to provide heating to thaw DEF for use in cold weather.
- Freezing and thawing will not degrade DEF.

Are There DEF Storage Requirements?

- DEF should be stored in a dry, well-ventilated area between 15°F and 77°F (-9°C and 25°C).
- Storage tanks should not be exposed to direct sunlight for long periods of time, as urea will decompose.
- Please refer to ISO 22241-3 for further information regarding DEF handling, transportation and storage.

Are There Recommendations For Dispensing?

- To prevent contamination, fill area should be cleaned prior to removing tank cap.
- Standard nozzles provide safeguards for DEF dispensing and are smaller in diameter than a diesel nozzle (preventing diesel nozzles from being inserted into DEF fill ports).
- Wearing protective clothing is not necessary, however, DEF can stain clothes.

Is Contamination A Concern?

- DEF cleanliness is extremely important as contaminants can degrade DEF.
- To avoid contamination, only use transfer containers that are dedicated to DEF.
- Poor handling practices can lead to emission systems failures