

Aqueous Urea Solution (32%) - Diesel Exhaust Fluid (DEF)

Last revision 2024

Chemical Name: Molecular formula: $\text{NH}_2 - \text{CO} - \text{NH}_2$

CAS No.: 57-13-6

Abbreviation: Amino methanamide solution

General Description:

Aqueous urea solution is produced by dissolving urea in demineralized water.

Technical Quality Specifications:

Characteristics	MU	Specification		Testing Methods
		Min	Max	
Urea Content	%	31.8	33.2	U-47A
Refractive Index	-	1.3814	1.3843	U-47A
Alkalinity as NH_3	%	-	0.2	U-47B
Biuret	%	-	0.3	U-47C
Aldehydes (HCHO)	mg/Kg	-	5	U-47D
Insoluble Matter (TSS)	mg/Kg	-	20	U-47E
Phosphate (PO_4)	mg/Kg	-	0.5	U-47F
Aluminium	mg/Kg	-	0.5	U-47F
Calcium	mg/Kg	-	0.5	U-47F
Chromium	mg/Kg	-	0.2	U-47F
Copper	mg/Kg	-	0.2	U-47F
Iron	mg/Kg	-	0.5	U-47F
Potassium	mg/Kg	-	0.5	U-47F
Magnesium	mg/Kg	-	0.5	U-47F
Sodium	mg/Kg	-	0.5	U-47F
Nickel	mg/Kg	-	0.2	U-47F
Zinc	mg/Kg	-	0.2	U-47F

Specific Properties:

Aspect: colourless clear liquid

pH at 20 °C: 7.5 - 9.5

Melting range: -11 -12 °C

Boiling range: > 100°C

Viscosity at 25 °C: aprox. 1.4 mPas

Density at 20 °C: 1.087 – 1.093 g/cm³

The specific properties present approximate values and contain general information, without being part of the technical quality conditions.

Applications:

Chemical has an application for reducing the level of NO_x from flue gases that passes through selective catalytic reduction (SCR) converter system in motor vehicles with diesel engines. SCR converter systems are particularly suitable for selectively reducing nitrogen oxide (NO_x) emissions of diesel engines.

Packaging and Storage:

Can be packed in non-pressure large bulk containers, road tankers and protected against spilling.

The product should be stored in cool, in well-sealed receptacles and protected from heat and direct sunlight.

The recommended range of temperatures for storing is from -5°C to +25°C. Store the product only in the original receptacle.

Safety Information:

Before handling and using the product, the personnel must be aware of the dangers implied. This information is available in SDS and on the product label.

Ensure good ventilation/exhaustion at the workplace.

Important:

For the better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.