

# AQUADEF - Diesel Exhaust Fluid Characterization

#### Overview

At Aquadef Autochem LLP, we are dedicated to ensuring the highest quality of Diesel Exhaust Fluid (DEF) solutions, commonly known as AUS32. Our DEF solutions are essential for reducing NOx emissions in diesel engines, supporting environmental protection initiatives.

# **Quality Testing Parameters**

We utilize advanced testing methods to evaluate several key quality parameters of our DEF solutions. These include:

- Urea Content
- Alkalinity
- Biuret Content
- Aldehyde Content
- Insoluble Matter Content

These Inhouse and third party lab tests are conducted according to the ISO 22241-2 standards, ensuring that our products meet the rigorous industry requirements.

Analytical Techniques

- 1. **Refractive Index and Urea Content** 
  - Method: Refractometry
  - **Range**: 31.8 % 33.2 % urea content
- 2. Refractive Index at 20°C: 1.3814-1.38 43
- 3. Alkalinity
  - Method: Potentiometric Titration
  - Alkalinity Content: Max. 0.2
- 4. Biuret Content
  - Method: UV/Vis Spectroscopy
  - Biuret : Max. 0.3
- 5. Aldehyde Content
  - Method: UV/Vis Spectroscopy
  - Aldehyde Contents : Max. 5
- 6. Insoluble Matter Contents
  - Method: Gravimetric Analysis
  - **Measurement**: Filtering and weighing residuals

# • Insoluble Matter Contents : Max. 20

Summary of third party lab assessment Results

Our rigorous testing ensures that our DEF solutions consistently meet industry standards:

- Refractive Index @ 20 DC : 1.3826 (within limits)
- Urea Content: 32.1 % (m/m) (within limits)
- Alkalinity: <0.01 % (m/m) (within limits)
- Biuret Content: 0.28 % (m/m) (within limits)
- Aldehyde Content: 0.25 mg/kg (within limits)
- Insoluble Matter Content: 4.97 / kg (within limits)

# **Commitment to Quality**

Aquadef Autochem LLP is committed to providing DEF solutions that not only meet but exceed industry standards. Our use of state-of-the-art instruments and adherence to ISO 22241-2 standards ensures that our products are of the highest quality, contributing to a cleaner environment.

For more information about our products and quality standards, visit our website or contact us directly.

# Aquadef Autochem LLP

Your partner in sustainable DEF solutions.