

## Typical Physical Properties



### 32.5% Aqueous Urea Solution DeNOx Grade



**Description:** Urea Solution, AUS 32, is a manufactured product of technically pure urea mixed with demin quality water designed to meet the specifications of DIN 70070:2005 and ISO 22241-1:2006 for NOx abatement technologies. Oilzum Clean Air DEF is certified as a Diesel Exhaust Fluid by the American Petroleum Institute.

**Shelf Life:** DEF can be sensitive to sunlight and temperature extremes. Oilzum DEF has a shelf life of 15 months if kept in a stable environment and is not exposed to volatile temperature changes. Recommended storage temperatures are between +50F and +85F.

| Typical Chemical and Physical Analysis |                                 |
|--|---------------------------------|
| Parameter                              | Typical                         |
| Urea Concentration                     | 32.5 +/- 0.7%                   |
| Specific gravity at 20° C              | 1.087 – 1.093 kg/m <sup>3</sup> |
| Refractive index at 20° C              | 1.3814 – 1.3843                 |
| Free Ammonia (alkalinity)              | 0.2% max                        |
| Bi uret                                | 0.3% max                        |
| Formaldehyde                           | None                            |
| Insoluble matter                       | 20 ppm max                      |
| Phosphates                             | 0.5 ppm max                     |
| Calcium                                | 0. 5 ppm max                    |
| Iron                                   | 0. 5 ppm max                    |
| Copper                                 | 0. 2 ppm max                    |
| Zinc                                   | 0. 2 ppm max                    |
| Chromium                               | 0.2 ppm max                     |
| Nickel                                 | 0. 2 ppm max                    |
| Aluminum                               | 0.5 ppm max                     |
| Magnesium                              | 0.5 ppm max                     |
| Sodium                                 | 0. 5 ppm max                    |
| Potassium                              | 0.5 ppm max                     |
| Water quality                          | Demin—ISO 3696 applicable       |

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This product will typically have similar physical characteristics as those listed above. Product characteristics may vary slightly, depending on the source. Although the information here is provided in good faith and believed to be reliable, Dennison Lubricants makes no guarantee, warranty or representation as to the suitability of the product for any purpose, and the user accepts full responsibility to determine the suitability of the product for its own use. Dennison Lubricants' liability for damages or losses shall be limited to replacement of the product or refund of the purchase price, at Dennison Lubricants' option. In no event shall Dennison Lubricants be liable for any special or consequential damages.