



# Z315

## Premium Water Soluble Cutting Oil

**Zeuty Z315** is a special soluble cutting oil formulated from high quality mineral oil and special emulsifiers for use where an emulsifiable cutting oil is required. This product is Nitrite, Phenol, and Cresol-Free. This product mixes readily with water and forms a uniform exceptionally stable white emulsion. The formation of a stable emulsion is critical as the emulsion is an indicator that the oil which is needed in lubrication is thoroughly mixed with the water which in turn is needed for its cooling properties. The white emulsion of **Zeuty Z315** when properly mixed in the correct proportion with water does not separate even after extended severe service or long storage periods.

### Benefits – Zeuty Z315 provides:

- Excellent Cooling Properties
- Extension of Cutting Tool Life
- Excellent Anti-Rust Properties
- Excellent Anti-Foaming Properties
- Easy Formation of Stable White Emulsion Critical to Carry Both the Oil and Water
- Excellent Lubricity providing Excellent Work-Piece Surface Finish and Extended Tool Life
- Low Odor / Operator Friendly
- Stable Emulsion – Long Service Life

### Applications:

Any metal removal operation such as grinding and cutting, etc., generate a considerable amount of heat. This heat if not quickly and properly dispersed would often result in poor work-piece finish and shortens the service life of the cutting tool. It is therefore the job of the cutting fluid to reduce heat generation and increase its dissipation. **Z315** provides excellent cutting tool lubricity, cooling, and rust prevention in a wide range of grinding and machining operations such as drilling, planing, milling, sawing, and turning. **Z315** is also an excellent water-based hydraulic medium.

### Dilution:

Dilute oil to water from ratios of 1 part oil : 20 parts water (5 %) to 1 part oil : 5 parts water (20%) depending on the machining operation and required surface finish. **Always add oil to water and never the opposite.**

**Coolant Maintenance:**

For best results, always use water of low water hardness (calcium content of 150 to 75 ppm) in preparing the emulsion and for the make-up mixture. The pH must be maintained in the range of 8.0 to 9.5 to keep the emulsion stable. Tramp oil as well as other contaminants must be removed from the system for good emulsion life. Machining debris and metal fines must be regularly filtered by filtration or other suitable means. It is highly recommended that the system must be thoroughly cleaned of the previous coolant, metal fines and contaminants before the introduction of this product in the system.

**Packaging:**

**Zeuty Z315** is available in 20L HDPE pails and 208L drums.

**Typical Properties:**

<b>Zeuty Z315 Premium Water Soluble Cutting Oil</b>		
<b>PROPERTY</b>	<b>TEST METHODS &amp; TYPICAL VALUES</b>	
APPEARANCE (Undiluted)	VISUAL	PALE CLEAR LIQUID
DENSITY @ 30 °C, kg / l (Undiluted)	ASTM D 4052	0.875
KINEMATIC VISCOSITY @ 40 °C, cSt (Undiluted)	ASTM D 445	42.0
pH (5% Emulsion)	Indicator Strip	9.8
Foam Test	Waring Blender Foam Test	pass

***Health and Safety:***

Zeuty Specialty Lubricants are unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained. Use gloves which are impervious to oil and chemicals when handling used oils. Avoid skin contact. If lubricants come in contact with skin, wash immediately with soap and water.

**TOTAL MAINTENANCE SOLUTIONS**

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