

# COLA<sup>®</sup>LUBE 4715 CI

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## **DESCRIPTION: Long chain alkanolamide, DEA Free**

With the need for DEA free metal working additives, Colonial Chemical has developed a new and innovative product for use in soluble oils, semi-synthetic and synthetic metal working fluids. Cola<sup>®</sup>Lube 4715CI is useful to the formulator in applications such as tapping, broaching, stamping, drilling and grinding. Cola<sup>®</sup>Lube 4715 CI will provide corrosion protection, anti-wear and EP properties

Cola<sup>®</sup>Lube 4715 CI is a low foaming, liquid, long chain alkanolamide that is dispersible in water. The product, when dispersed in the presence of water and oil, forms a chemical emulsion. Lubricants with specifically controlled viscosities can be developed due to the unique thickening properties of Cola<sup>®</sup>Lube 4715 CI in water.

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## **PERFORMANCE DATA**

Cola<sup>®</sup>Lube 4715 CI at 1% in water is high foaming and stable; however adjusting to a neutral pH dramatically reduces foam height, which is generally true for most long chain alkanolamides.

### Cast Iron Chip Test

Result: 1% (by wt.) Cola<sup>®</sup>Lube 4715 CI in water – No rust.

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## **TYPICAL PROPERTIES**

Appearance	clear liquid
pH 10%	10.4
Acid #	52.4
Alkali #	123.5
Solidification temp	28° C
Melting point	33° C
Color, Gardner 63'	9

Cola®Lube 4715 CI is non-staining to ferrous and non-ferrous metal while providing ferrous corrosion protection to formulations

Cola®Lube 4715 CI is liquid at room temperature and may become semi-solid or solid at temperatures below 25°C. If temperatures are expected below 25°C, heated storage facilities should be considered.

To return solid material to the liquid form, gentle heating in a hot room or warm area is recommended.

### SOLUBILITY IN OILS

10% solutions in the following oils:

Aromatic 150	Soluble
Soy methyl ester	Soluble
100 cs. Paraffinic	Dispersible
Naphthenic	Dispersible
Isoparaffinic	Insoluble
Mineral seal oil	Insoluble

### Formulations

#### *Soluble Oil, Stamping and Grinding Fluid*

<u>Compound</u>	<u>Wt.%</u>
Soy methyl ester	60.0
Cola®Lube 4715 CI	15.0
Cola®Lube 3414	10.0
TOFA	5.0
TEA-99	10.0

Procedure: Blend ingredients in order with stirring until uniform and clear.

Performance Data (5% in water)

Appearance: Blooming milky emulsion

pH: 9.4

Cast Iron Chip Test: Pass

Use dilutions:

Grinding: 2% - 4% in water

Light machining: 3% - 6% in water

Moderate machining: 5% - 8% in water

Heavy machining: 7% - 10% in water

*Synthetic all Metal Machining and Forming Fluid*

<u>Compound</u>	<u>Wt.%</u>
Water	50.0
TEA-99	20.0
Cola®Lube 4715 CI	20.0
Cola®Lube 3404	10.0

Procedure: Blend ingredients in order with stirring until uniform and clear.

Performance: Data (5% in water)

APPEARANCE: MILKY EMULSION

pH: 9.4

Cast Iron Chip Test: Pass

Use Dilutions:

Moderate machining: 4% - 8%

Heavy machining: 6% - 10%

Last Modified 07/25/2006

**WARRANTY**

Colonial Chemical guarantees that its products meet published specifications. No other warranties or guarantees are expressed or implied because the use of this material is beyond the control of Colonial Chemical.