



Cola[®]Lube 3410

Metalworking Lubrication Additive

CHEMICAL NAME Phosphate Ester
LISTINGS US (TSCA); Canada (DSL); China (IECSC); Australia (AICS);
Philippines (PICCS); New Zealand (NZIoC)

Cola[®]Lube 3410 is an ashless, oil soluble, complex long chainlength aliphatic phosphate ester, provides outstanding extreme pressure (EP), anti-wear, lubricity, and corrosion inhibition properties in a variety of metalworking fluid formulations. While developed for use in severe drawing and stamping applications, it can be readily utilized in synthetic, semi-synthetic, soluble oil and straight oil based systems for use in ferrous, non-ferrous, and stainless steel metalworking. Also, it is effective in increasing the OK Timken Load in gear oils. Cola[®]Lube 3410 is supplied in the free acid form and contains no heavy metals.

Cola[®]Lube 3410 is recommended as a replacement for chlorinated paraffin in almost every metalworking operation. Cola[®]Lube 3410 is oil soluble, however, it can also be incorporated into water-dilutable formulations.

A guide to follow for replacing a chlorinated paraffin is to work on a one for one basis, Cola[®]Lube 3410 for % Chlorine. An example, a cutting oil contains 6% of a 50% Chlorinated Paraffin bringing to the formula 3% Chlorine, therefore, one would substitute in the product, 3% Cola[®]Lube 3410.

Cola[®]Lube 3410 possesses a high acid number; therefore, additional alkaline components, such as triethanolamine, must be made. In oil systems, Cola[®]Lube 3410 is not compatible with other chlorine replacement additives, such as over-based sulphonates.

Cola[®]Lube 3410 is recommended for all metalworking applications, and has successfully replaced chlorine at levels up to 15% in the formulations. Levels of chlorine above 15% should be formulated carefully.

SPECIFICATIONS

Appearance	Dark brown liquid
Color (ASTM 1500, 5% dilution)	4.0 max.
Specific gravity (60°F)	0.950 – 1.00
Acid Number	130 - 170
Phosphorous, %	3.3 – 4.3
Viscosity (210°F, sus)	500 – 850

STORAGE AND HANDLING

Cola[®]Lube 3410 should be stored in closed containers. Shelf life is 24 months from date of manufacture. Cola[®]Lube 3410 is shipped in steel 55-gal drums, net weight 430 lbs (195.0 kg). Safety Data Sheet may be downloaded at www.colonialchem.com.

Colonial Chemical

225 Colonial Drive · South Pittsburg, TN 37380
Phone: 423-837-8800 · Fax: 423-837-3888
www.colonialchem.com

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