Supplier - SMART OIL SmartPhos P7800

Phosphate Ester Phosphate Containing Additives

0.900 - 1.200

550 - 950

> 4

< 240

> 180

128 / 315

Typical Properties

Appearance Light Yellow To Amber Liquid Specific Gravity@25°C Viscosity@40°C, cSt Phosphorus Content, %wt Acid Value, mgKOH/g Flash Point C.O.C., °C P_B/P_D , kg+

Product Description

SMARPHOS P7800 is a superior light color and low odor phosphate ester, which can be formulated into both water-based or oil-based cutting fluids.

SMARPHOS P7800 is a multifunctional additive that possesses anti-wear, anti-corrosion, wetting, emulsifying, detergency and dispersant characteristics. It is suitable for use in formulations of rolling oils, water-based cutting fluids, glass cutting and polishing lubricants.

SMARPHOS P7800 can be blended with sulfur or chlorine compound to achieve the synergistic effect, to cover different stages of lubricating, anti-wear and extreme pressure during processing.

SMARPHOS P7800 performs well in severe operations on difficult-to-machine metals. It can effectively reduce smog and improve surface finishing of the workpieces.

SMARPHOS P7800 can be used as a main anti-corrosion additive in water-based formulations for the aluminium and magnesium alloy processing fluids. The dosage can the in the range of 0.5-6% in formulations.

SMARPHOS P7800 becomes translucent emulsion when diluted with water. It can replace sulfur and chlorine EP additives to provide superior anti-wear and EP properties in water-based formulations, such as soluble oils, rolling oils and semi-synthetic fluids.

Applications Suggested Treat Rates, %wt 2 - 5 Oil-Based Formulations Water-Based Formulations 1 - 2

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⁺4 Ball Wear Test; 5% additive in SN150, Server Motor Speeds reach 1500rpm (P_B) and 1760rpm (P_D) in 0.03sec.