

# Technical Information

# **BOELUBE® 70090 Liquid** HIGH EFFICIENCY NEAR DRY MACHINING LUBRICANT

## Description



**BOELUBE® 70090 Liquid** is nontoxic, non-irritating, environmentally safe synthetic lubricant for minimum quantity lubrication (MQL).

The special BOELUBE<sup>®</sup> chemistry yields a high polar lubricating film, which greatly reduces friction minimizing heat generation, and subsequently the need to remove heat.

### **Environmentally Safe / Worker Friendly**

Manufactured from personal care ingredients, BOELUBE<sup>®</sup> 70090 Liquid is non-toxic, non-irritating and biodegradable.

BOELUBE<sup>®</sup> 70090 Liquid is non-corrosive, nonflammable, chemically stable, and free of Halogens, Silicone, Petroleum, Paraffin Wax, Sulfur and Phosphorus, whether added or present in any ingredients.

BOELUBE® 70090 Liquid is effective for machining many types of materials such as Aluminum, Titanium, Stainless Steel, Carbon Fiber, Composites, Honeycomb, Inconel, Kevlar, Wood, Ferrous and Non-ferrous Metals.

BOELUBE<sup>®</sup> 70090 Liquid is extremely cost effective in applications such as Drilling, Tapping, Reaming, Deburring, Grinding, Milling, Routing, Sawing, Stamping and Punching.

BOELUBE<sup>®</sup> 70090 is designed for all Fine Droplet, Spray and Oil Hole Tool applications.

Typical BOELUBE<sup>®</sup> 70090 Liquid usage is approx. 1 fluid oz. (30 ml) or less per hour of machining time, which is best determined by the machining process and workpiece composition. BOELUBE<sup>®</sup> 70090 Liquid is most effective when used in minimal quantity.

Boelube 70090 will remain in a fully liquid state at temperatures as low as 14 F (-10 C).

Using a coaxial supply of compressed air and lubricant to the nozzle, the nozzle directs BOELUBE<sup>®</sup> 70090 liquid droplets in the compressed air directly to the cutting edge.

The compressed air helps move chips from the tool cutting edge as fine lubricant droplets form a thin film at the point of contact to reduce friction and heat generation, and help keep tools cool.

BOELUBE<sup>®</sup> 70090 Liquid is widely used in the operation of portable positive feed drills.

BOELUBE<sup>®</sup> 70090 Liquid can also be delivered continually through tools with internal channels directly to the cutting edge in drilling, reaming, tapping, and milling applications.

BOELUBE<sup>®</sup> 70090 Liquid will provide superior lubricity leading to better surface finish, longer tool life, and yield closer tolerance parts.

BOELUBE<sup>®</sup> 70090 Liquid is for the most part consumed in the machining process with little or no clean-up or related costs and no disposal costs. The resulting chips are dry, not tacky and can be reclaimed without further processing.

### **Typical Properties**

Physical State: Color: Solubility in Water: VOC Content: Liquid Clear Insoluble Non-volatile (< 0.1%)



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