

# CASE STUDY

## ALUMINUM STAMPING/FORMING LUBRICANT



**CHALLENGES:** Major manufacturers of aluminum fish cans and foil trays were looking for a replacement product for an obsoleted lubricant.

### **C<sup>6</sup>** CUSTOMER REQUIREMENTS

- To reduce inventory and improve process by having only one product for use on pre-decorated fish cans and foil trays.
- No required cleaning.
- Meets FDA CFR 21 guidelines for indirect and direct food contact.
- Multiple applications methods: header/wiper, electrostatic and roll coat.
- Improved surface quality.
- Consistent performance.
- Non petroleum, non synthetic.
- Elimination of transverse surface tearing of the trays.

Chemtool developed and presented a product meeting the requirements that will increase productivity through improved lubricant performance, without investing capital in new or modified equipment, in a minimal amount of time.

### THE SOLUTION

The development of the NuSol™ 7525 FG Series of lubricants for aluminum foil trays and aluminum fish forming, in short order led a major aluminum company to request Chemtool assistance in finding a sustainable alternative to the incumbent aluminum food tray and cans stamping lubricant.

NuSol™ 7525 appeared to meet the requirements for the aluminum food can/tray lubricant and was successfully implemented with roll coat and electrostatic application.

### TOTAL BENEFITS

- Twice lower viscosity = 30% usage reduced. (from 60 mg/m<sup>2</sup> to 40 mg/m<sup>2</sup>)
- Fewer stamped defects.
- Easy operator acceptance.
- Better quality cans/trays.
- Product consolidation- one product-two applications.

## THE PRODUCT

# NuSol™ 7525

CTG NuSol™ 7525 is specifically designed for the stamping operation to form aluminum food cans. Raw materials meet FDA guidelines for “direct and indirect contact with food”.

NuSol™ 7525 can be applied electrostatically or by traditional roll coaters or header/wiper methods.

### PRODUCT BENEFITS

The introduction of the NuSol™ 7525 FG Series aluminum can forming lubricant technology benefits included:

- » Reduced inventory- one product instead of two.
- » No additives.
- » No cleaning.
- » No biocide.
- » Improved application control.

### PROCESS IMPROVEMENT WITH NuSol™ 7525

- » Reduced cost of the process by 30%.
- » Inventory consolidation.
- » Non petroleum, green, renewable product.

### SPECIFICATIONS/TYPICAL VALUES

- » Appearance: clear, yellow liquid.
- » Specific Gravity: 60/60°F: 0.8150 - 0.9008.
- » Viscosity: cSt @ 40°C: 39.3 - 43.5.
- » Resistivity: mega-ohms @ 140°F: 75 - 90.

### APPLICATIONS

- » Tagger lids
- » Cans for food
- » Food packaging
- » Semi-rigid containers
- » Tobacco packaging
- » Aseptic packaging
- » Closures
- » Beverage cans
- » Pharmaceutical packaging

## APPLICATIONS AT HYDRO

Foil and strip for packaging.

### ALUMINUM MENU TRAYS



### GOURMET STYLE TRAYS



### CASSEROLES AND LIDS



### ALUMINUM CONTAINERS



### FISH CONTAINERS



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