

# VALONA 4591 S



METALWORKING



**TOTAL**

**Chlorinated Cutting Oil for Severe Machining.**

## APPLICATIONS

- **VALONA 4591 S** is a chlorinated, dark brown, heavy duty cutting oil which is efficient over a wide working range of both metals and machining operations.
- **VALONA 4591 S** is used on all cutting operations on all ferrous and non-ferrous metals: low carbon steels, hard and very hard steels (bearing steels), on tensile steels, stainless steel, and yellow metals.
- Operations include: severe machining such as gun drilling, deep hole drilling, turning, screw cutting, gear cutting, threading, boring, shaping of carbon steel, stainless steel, and other nickel-chromium alloyed steels.

## ADVANTAGES

- Very good extreme pressure performance due to the combination of inactive sulfur and chlorine.
- Increases tool life, prevents ridging, promotes good surface finish.
- Excellent lubricity properties--Increases the tool life on a large scale of cutting parameters maintaining an additive layer on the chip / workpiece / tool surface.
- Outstanding oxidation resistance.
- Handles a broad spectrum of metals.
- Excellent heat dissipation.
- Excellent metal wetting ability.

TYPICAL CHARACTERISTICS	VALONA 4591 S
Appearance	Dark Brown Liquid
Color, ASTM D-1500	8.0
Viscosity at 40°C, cSt	30.6 - 37.4
Density @ 60 °F, lbs./gal.	7.66
Specific Gravity @ 60/60 °F	0.920
Flash Point, COC, °F	350
Copper Strip Corrosion	1A-1B
Lubricity Content, %wt.	> 3.0
Sulfur Content, %wt.	1.1
Chlorine Content, %wt.	1.2

**TOTAL Lubricants USA, Inc.**

Linden, NJ 07036  
5 North Stiles Street  
908.862.9300/800.526.4127

Rockingham, NC 28379  
709 Airport Road  
800.323.3198 / 800.526.4127

Knoxville, TN 37914  
3315 Riverside Drive  
800.323.3198 / 800.526.4127