SHELL FENELLA® OILS CH

Chlorine free compounded mineral oils for heading, stamping and drawing applications.

Product Description

Shell Fenella® Oils CH are chlorine free, compounded mineral oils designed for use in a wide range of metal forming applications including heading, stamping, rolling, drawing, and extruding of aluminum, copper, ferrous and other non-ferrous metals. **Shell Fenella Oils CH 401 and CH 402** possess excellent anti-wear, load carrying, lubricity, and adhesive properties to provide satisfactory lubrication in many metal deformation processes.

Shell Fenella Oils CH 401 and CH 402 are formulated with special anti-wear, extreme pressure, and lubricity additives along with a tackifier in highly refined base oils. The unique anti-wear/extreme pressure-additive system provides extremely effective boundary lubricant films, which prevent metal-to-metal contact to protect the die and the part being formed. The lubricity additives impart excellent wetting and oiliness characteristics, which reduce frictional heat and provide smooth surface finish of parts. The tackifier provides adhesive properties, which retains the lubricant on the metal during forming operations. Both products are non-corrosive and possess good rust protection properties to protect machines, dies, and workpieces. **Shell Fenella Oils CH 401 and CH 402** have been specially formulated to minimize smoking, staining, and oxidizing of oil on parts during severe forming operations.

Shell Fenella Oils CH 402 exhibits a higher viscosity and greater adhesive properties, which make the product extremely suitable for multi-step metal deformation processes where maintaining the fluid on the part is necessary. **Shell Fenella Oils CH 401 and CH 402** may be easily removed by conventional solvents and aqueous cleaning techniques. In many forming operations, **Shell Fenella Oils CH 401 and CH 402** may be used in place of highly chlorinated forming fluids without sacrificing performance. The absence of chlorine allows the products to be used in forming operations on metals and alloys of aluminum and titanium. These products do not contain active sulfur, which makes them suitable for use with copper and brass alloys.

Applications

- cold heading
- stamping
- rolling
- extruding

Features/Benefits

- excellent anti-wear and extreme pressure properties
- excellent lubricity and adhesive properties
- excellent surface finish of parts
- promotes die life (minimizes wear and metal pick-up)
- good rust/corrosion protection properties
- no chlorine, zinc, phosphorus, or heavy metals
- effective with ferrous and none-ferrous metals
- low smoke/mist tendencies

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Typical Properties of Shell Fenella Oils CH

	Test Method	CH 401	CH 402
Product Code		61054	61055
Appearance		Pale	Dark Pale
Gravity, °API	D 1298	22.0	21.1
Viscosity: @ 40°C, cSt @ 100°C, cSt @ 100°F, SUS @ 212°F, SUS	 D 445 D 445 D 88 D 88	 78.3 10.7 403 62.7	 154 17.45 799 89.9
Viscosity Index	D 2270	123	124
Flash Point, °F	D 92	430	415
Pour Point, °F	D 97	10	15
Rust Test Distilled Water Synthetic Sea Water	 D 665A D 665B	 Pass Pass	 Pass Pass
Copper Strip Corrosion	D 130A	1a	1a
Stick Slip Test Static/Kinetic Ratio	 D 2877	 0.69	 0.68
Four Ball EP Load Wear Index, kgf Weld Point, kgf	D 2783	 100 620+	 100 620+
Calcium		Present	Present
Sulfur		Present	Present
Chlorine		None	None

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet **http://www.equivashellmsds.com.** If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please **call 1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: **http://www.shell-lubricants.com/.**

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