Product Data

Tribol CH 1421 Range

Chain Oils

Description

Castrol Tribol CH™ 1421 (Previously called Tribol™ 1421) High Temperature Chain Oils are synthetic, premium quality products formulated for the most demanding high temperature chain applications. They provide a unique combination of extremely low volatility and low residue formation tendency, which allows for reduced lubricant consumption and improved housekeeping.

Tribol CH 1421 is part of the Castrol Performance Lubricants' Eco-Solutions™ product offering. Formulated to address environmental concerns, they are free of antimony and barium. In addition, Tribol CH 1421 is a H2 rated lubricant suitable for use in meat and poultry packaging plants.

Tribol CH 1421 lubricants are manufactured from a blend of esters and synthetic fluids selected for their favorable volatility characteristics as well as their physical and chemical stability at high temperatures with extremely low residue forming tendencies.
Tribol CH 1421lubricants can support fluid film lubrication on chain pins over a broad high temperature range. The lubricants contain anti-wear additives for additional protection in boundary lubrication from surging loads and extreme temperatures.

Tribol CH 1421 lubricants contain inhibitors against corrosion and oxidation.

Application

Tribol CH 1421 lubricants are designed and most effective for chain operating temperature applications between 350°F/ 175°C (the point at which synthetics become cost effective) and 575°F/300°C. Tribol CH 1421 maintains peak performance over the entire temperature range.

With more frequent relubrication, Tribol CH 1421 continues to perform at temperatures beyond 575°F/300°C.

Tribol CH 1421 lubricants are designed for the lubrication of roller chains, slides, cams and general lubrication where a high temperature synthetic lubricant is needed.
Major applications include industries using high temperature conveyor systems used for baking, coating, drying and curing.

Product application may be achieved by drip, spray, splash and automatic dispensing equipment. Use of an automatic lubrication system is recommended to benefit the most from the use of Tribol CH 1421.

Advantages

- Application rate and frequency can be minimized due to extremely low volatility. Lubricant consumption is minimized.
- Minimal residue forming tendency and cleansing action virtually eliminates shutdowns for periodic cleaning of equipment.
- Dissolves and facilitates removal of pre-existing gum, varnish and carbonaceous residues.
- Dripping and blow-off are minimized by reduced lubricant application requirements.
- Excellent fluid film and anti-wear properties result in extended chain life and potential for energy reduction.
- Fire and explosion possibilities are minimized due to extremely low volatility. Safety and environmental conditions are improved.
- Overall cost reduction is accomplished by extended lubrication cycles, reduced contamination, decreased downtime for maintenance and repair, and longer parts life.

Typical Characteristics

Name	Method	Units	CH 1421 / 150	CH 1421 SG	CH 1421 / 680
ISO Viscosity Grade	ASTM D 2422	-	150	None	680
Specific Gravity @ 40°C / 104°F	ASTM D 1298	-	0.943	0.941	0.940
Kinematic Viscosity @ 40°C / 104°F	ASTM D445 / ISO 3104	mm²/s	150	276	696
Kinematic Viscosity @ 100°C / 212°F	ASTM D445 / ISO 3104	mm²/s	16.3	27	52.5
Kinematic Viscosity @ 100°C /SUS	ASTM D445 / ISO 3104	mm²/s	782	1444	3687
Kinematic Viscosity @ 210°C /SUS	ASTM D445 / ISO 3104	mm²/s	85	133	254
Viscosity Index	ASTM D2270 / ISO 2909	-	115	129	232
Flash Point - open cup method	ASTM D92 / ISO 2592	°C/°F	260 / 500	260 / 500	260 / 500
Fire Point	ASTM D92 / ISO 2592	°C/°F	299 / 570	304 / 580	299 / 570
Autoignition temperature	ASTM E659	°C/°F	400/752	410/770	>410/770
Rust test - distilled water (24 hrs)	ASTM D665A / ISO 7120	-	Pass	Pass	Pass
Pour Point	ASTM D97 / ISO 3016	°C/°F	-43/-46	-36/-33	-29/-20
Carbon residue - Conradson test	ASTM D189 / ISO 6615	%wt	0.08	0.08	0.05
Falex Pin & Vee Block test - Antiwear properties	ASTM D 2670-10	Teeth Wear (number)	+6	+9	+1
Falex EP Direct Load Fail Stage		lbs	1250	1250	1750
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ASTM D4172	mm	0.39	0.39	0.39
Evaporation Loss - Noack (TGA Method). Isothermal @ 200°C/392°F, 60 ml/min airflow. Isothermal @ 225°C/437°F, 60 ml/min airflow. Isothermal @ 250°C/482°F, 60 ml/min airflow. Isothermal @ 275°C/525°F, 60 ml/min airflow.	ASTM D6375	Time (hours) to 50% remaining	>10 >10 3.3 1.3	>10 >10 5.5 1.3	>10 >10 5.0 1.5

Subject to usual manufacturing tolerances.

User Advice

Tribol CH 1421 Chain Oils are compatible with petroleum and most synthetic based lubricants. Tribol CH 1421 can dissolve hardened chain deposits from the previously used lubricant, however, it is still recommended to clean the chain thoroughly before changeover to Tribol CH 1421. If this is not feasible, run chain through several cycles under no-load conditions when first applying Tribol CH 1421.

Tribol CH 1421 should not be used around parts containing polycarbonates as it can have a softening effect and it should not be used where neoprene seals are used.

This product was previously called Tribol™ 1421. The name changed in 2015.

BP Lubricants USA Inc., 1500 Valley Road, Wayne, NJ 07470
Telephone: +1-888-CASTROL Product Information: +1-877-641-1600
www.castrol.com/en_us/b2b/home.html