Product Data

Brayco™ 1624

Perfluoroether Lubricating Oil

Description

Castrol Brayco™ 1624 is a clear, colorless perfluoroether oil. It is odorless, non-flammable, and generally chemically inert. It exhibits good thermal stability and is compatible with most commonly used propellants, fuels, and oxidizers. This product has excellent lubricating properties, good dielectric properties, excellent shear stability, and low toxicity. Brayco IC X-100 (formerly Fluoroclean™ X100) can be used to remove this lubricant.

Application

Brayco 1624 is an excellent lubricating oil for precision bearings. This product is recommended for use as a damping fluid, flotation fluid and an electrical contacts lubricant. This product is compatible with concentrated acids and bases and does not hydrolyze or oxidize. Perfluorinated fluids, in general, exhibit excellent shelf lives due to their intrinsic inertness.

Typical Characteristics

Name	Method	Units	Brayco 1624
Specific Gravity @ 16°C / 60°F	ISO 3675 / ASTM D1298	-	1.89
Density of finished grease @ 16°C / 60°F	In-house test	lb/gallon	15.8
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	4.2
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	24
Kinematic Viscosity @ 20°C / 68°F	ISO 3104 / ASTM D445	mm²/s	64
Kinematic Viscosity @ -29°C / -20°F	ISO 3104 / ASTM D445	mm²/s	1,326
Kinematic Viscosity @ -40°C / -40°F	ISO 3104 / ASTM D445	mm²/s	17,500
Kinematic Viscosity @ -54°C / -65°F	ISO 3104 / ASTM D445	mm²/s	234,900
Viscosity Index	ISO 2909 / ASTM D2270	-	55
Evaporation Loss, 22 hrs @ 120°C / 248°F	ASTM D972	%wt	2.5
Evaporation Loss, 22 hrs @ 149°C / 300°F	ASTM D972	%wt	13
Pour Point	ISO 3016 / ASTM D97	°C/°F	-54 / -65
Acid Number	ISO 6618 / ASTM D974	mgKOH/g	0.02
Knudsen Vapour Pressure @ 20°C / 68°F	-	Pa	5.32 x 10(-4)
Knudsen Vapour Pressure @ 100°C / 212°F	-	Pa	0.931

Additional Information

Temperature Range

-54ºC to 149ºC (-65ºF to 300ºF)

Limitations

Brayco 1624 is compatible with all commonly utilized materials, plastics, and elastomers. It is only slightly soluble in most organic solvents and fluids other than highly fluorinated solvents. Brayco 1624, like all perfluoroether based lubricants, may be adversely affected by Lewis Acids such as aluminum chloride at elevated temperatures. Newly exposed rubbing surfaces of aluminum, titanium, or magnesium alloys may react with this product under certain conditions. Such systems should be thoroughly evaluated prior to use. Surfaces must be free of organic rust inhibitors prior to oil applications to insure proper lubrication.

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