

Liquid Guardian White Oil



**LIQUID
GUARDIAN**

PRODUCT BULLETIN

Liquid Guardian produces a family of polymer and process oils for industrial and food contact applications. These highly refined, clear, low volatility mineral oils have extremely high oxidation stability. **Liquid Guardian White Oil** are chemically inert, nearly colorless, odorless and tasteless with very good UV stability.

CUSTOMER BENEFITS

Liquid Guardian (LG) White Oil deliver value through:

A high degree of purity: Colorless, odorless, tasteless. The purity of LG White Oils accounts for their frequent use in medicinal and cosmetic products. The low phytotoxicity of LG White Oils can make them a preferred component of products applied to agricultural and ornamental plants.

A wide application range: LG White Oils are common ingredients of pharmaceuticals and cosmetics. The plastics, textile and food industries are major users of LG White Oils.

FEATURES

LG White Oils are colorless, odorless, tasteless mixtures of saturated paraffinic and naphthenic hydrocarbons that span a viscosity range of 60-550 SUS at 100°F.

These nearly chemically inert oils are virtually free of sulfur, nitrogen, oxygen and aromatic hydrocarbons. LG Oils contain Vitamin E, a natural antioxidant, to protect quality during handling and storage. They are clear, bright and free of solids and water.

APPLICATIONS

LG White Oils find wide application:

- › Where direct food contact may occur
- › Where prolonged contact with human skin is necessary
- › Where odor and staining must be minimized
- › Where outstanding long service under adverse conditions is required

LG White Oils must be stored in approved containers to prevent contamination that could jeopardize their food grade status.

Liquid Guardian White Oils meet or exceed all mineral oil requirements for:

- › U.S. Food and Drug Administration (FDA):
 - › For food contact applications, 21 CFR 178.3620(a)
 - › For direct use in food, 21 CFR 172.878
 - › For applications where incidental food contact may occur, 21 CFR 178.3570
 - › For use in animal feed, 21 CFR 573.680
 - › For use as technical white oils, 21 CFR 178.3620(b)
 - › For use as a plasticizer in polymeric substances, 21 CFR 178.3740
- › U.S. Pharmacopeia (USP)
- › Cosmetic, Toiletry, and Fragrance Association (CTFA)
- › Canadian Food Inspection Agency (CFIA)
- › Are certified Kosher, Pareve and Halal
- › European Pharmacopeia (EP)
- › Produced in three Safe Quality Foods (SQF) certified facilities that are fully FSMA (Food Safety Modernization Act) compliant
- › Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) registered for EU, UK and Korea
- › Are certified by NSF and are acceptable as lubricants where incidental food contact may occur (H1) in and around food processing areas and as a release agent (3H) where direct food contact may occur. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

CONTACT YOUR CHRISTENSEN SALES REPRESENTATIVE FOR ADDITIONAL INFORMATION

1060 Jadwin Ave Richland, WA 99352 • 509.882.2115 • commercialsales@christensenusa.com • christensenusa.com

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Liquid Guardian White Oil



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TEST DATA

White Mineral Oil

Typical Properties	Methods	60-W	70-W	90-W	100-W	220-W	350-W	500-W
Gravity API Specific, 60° F / 60° F	ASTM D4052	33.8 0.8588	35.8 0.8456	35.2 0.8487	35.2 0.8489	33.1 0.8595	32.4 0.863	31.9 0.8659
Viscosity, Kinematic cSt @ 40°C	ASTM D445	10	13	17	20	43	68	102
Viscosity, Saybolt SUS @ 100°F	ASTM D2161	62	70	90	105	220	350	531
Flash Point, °F (°C)	ASTM D92	311(155)	350(177)	350(177)	392(200)	437(225)	446(230)	500(260)
Pour Point, °F (°C)	ASTM D5950	-27(-33)	-17(-27)	5(-15)	10(-12)	10(-12)	10(-12)	10(-12)
Color, Saybolt	ASTM D156	+30	+30	+30	+30	+30	+30	+30
21 CFR 172.878	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass
21 CFR 178.3620 (a)	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Technical Grade

Typical Properties	Methods	60-W	70-W	90-W	100-W	220-W	350-W	500-W
Gravity API Specific, 60° F / 60° F	ASTM D4052	33.8 0.8588	35.8 0.8456	35.2 0.8487	35.2 0.8489	33.1 0.8595	32.4 0.863	31.9 0.8659
Viscosity, Kinematic cSt @ 40°C	ASTM D445	10	13	17	20	43	68	105
Viscosity, Saybolt SUS @ 100°F	ASTM D2161	62	70	90	105	220	350	500
Flash Point, °F (°C)	ASTM D92	315(157)	350(177)	350(177)	392(200)	437(225)	446(230)	532(278)
Pour Point, °F (°C)	ASTM D5950	-27(-33)	-17(-27)	5(-15)	10(-12)	10(-12)	10(-12)	10(-12)
Color, Saybolt	ASTM D156	+28	+28	+28	+28	+28	+28	+26
21 CFR 178.3620 (b)	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing. All trademarks are the property of Christensen, Inc. Contact us for further information about specifications, applications, samples and delivery.

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