Food Machinery Oil

Phillips 66® Food Machinery Oil is a premium quality, ashless, food-grade lubricant specially developed for use in hydraulic systems, rotary air compressors, lightly to moderately loaded enclosed gear drives, and other machinery in food processing and beverage plants. All viscosity grades are registered by NSF International as H1 lubricants for use where incidental food contact may occur, and also as H2 lubricants for use in applications where there is no chance for incidental food contact. All viscosity grades are certified as meeting Canadian Food Inspection Agency requirements for use in federally registered food plants, and also certified Halal, Kosher, and Pareve.

Food Machinery Oil is manufactured with hydroprocessed base oils of the highest purity and fortified with an ashless, zinc-free, antiwear additive plus rust and oxidation inhibitors. It provides excellent wear protection, corrosion resistance, and deposit control to ensure long service life for hydraulic pumps and motors, and other equipment. It has good water-separating properties to minimize the formation of emulsions, and is resistant to excessive foaming.

Food Machinery Oil meets the performance requirements of all major hydraulic pump manufacturers, and is recommended for use in all types of high-pressure, high-speed hydraulic pumps.

Applications

- Food processing equipment in bakeries, canneries, meat packing plants, and bottling plants
- Hydraulic systems, circulating oil systems, and rotary air compressors (typically, ISO VG 68 and lighter)
- Lightly to moderately loaded enclosed industrial gear drives that do not require a compounded extreme-pressure (EP) gear oil (typically, ISO VG 100 and heavier)
- Air tools and other pneumatic equipment lubricated through air line lubricators
- Chain drives
- Deep well water pumps
- Equipment on offshore oil platforms

Food Machinery Oil meets the requirements of the following government and industry specifications:

- Canadian Food Inspection Agency (CFIA) requirements for use in federally registered food plants (incidental food contact) (registered)
- FDA 21 CFR 178.3570 for incidental food contact
- NSF International H1 and former 1998 USDA H1 guidelines for incidental food contact (Registration Nos. 137567, 137568, 137569, 140092, and 140093)
- NSF International H2 and former 1998 USDA H2 guidelines for use with no chance of incidental food contact

Features/Benefits

- Excellent wear protection for critical system components
- Good oxidation resistance to minimize sludge and varnish formation
- Protects against rust and corrosion
- Good water-separating properties to minimize the formation of emulsions
- Good foam resistance
- Certified Halal, Kosher, and Pareve

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Typical Properties					
ISO Grade	**32**	**46**	**68**	**100**	**220**
Specific Gravity @ 60°F	0.865	0.868	0.871	0.877	0.876
Density, lbs/gal @ 60°F	7.20	7.23	7.25	7.30	7.29
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Color, Saybolt	+30	+30	+30	+30	+30
Flash Point (COC), °C (°F)	204 (400)	216 (420)	221 (430)	221 (430)	263 (505)
Pour Point, °C (°F)	-9 (15)	-9 (15)	-9 (15)	-9 (15)	-9 (15)
Viscosity					
cSt @ 40°C	32.0	46.0	68.0	100	220
cSt @ 100°C	5.5	7.0	9.1	11.9	22.0
SUS @ 100°F	165	237	351	520	1,151
SUS @ 210°F	45	50	57	67	110
Viscosity Index	108	109	109	109	121
Acid Number, ASTM D664, mg KOH/g	0.05	0.05	0.05	0.05	0.05
Copper Corrosion, ASTM D130	1a	1a	1a	1a	1a
Demulsibility, ASTM D1401, minutes to pass	30	30	30	30	30
Foam Test, ASTM D892, Seq. I, mL	0/0	0/0	0/0	0/0	0/0
Four-Ball Wear, ASTM D4172, Scar Diameter, mm	0.55	0.53	0.50	0.50	0.50
FZG Scuffing Test, ASTM D5182, Failure Load Stage	12	12	12	12	12
Oxidation Stability					
TOST, ASTM D943-04a, hours	3,000	3,000	3,000	3,000	3,000
RPVOT, ASTM D2272, minutes	480	480	480	480	450
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass	Pass

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via http://www.phillips66.com/EN/products/Pages/MSDS.aspx.

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