



Food Machinery Oil

Food Machinery Oil is a premium quality, ashless, food-grade lubricant specially developed for the lubrication of machinery in food processing and beverage plants. It is registered by NSF International as an H1 lubricant for use where incidental food contact may occur, and also as an H2 lubricant for use in applications where there is no chance for incidental food contact. It also meets former 1998 USDA H1 and H2 guidelines, and is certified Kosher and Pareve.

Food Machinery Oil is blended with the highest-quality USP white oils 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. The ISO 32, 46 and 68 viscosity grades typically are used in hydraulic systems, rotary air compressors and circulating systems. The ISO 100, 220 and 460 viscosity grades are recommended for use in moderately loaded enclosed gearboxes that do not require an extreme-pressure gear oil.

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

Applications

- Bakeries, canneries and beverage plants
- Food processing and meat packing plants
- Air tools and other pneumatic equipment lubricated through air line lubricators
- Chain drives
- Deep well water pumps
- Equipment on offshore oil platforms
- Moderately loaded enclosed industrial gearboxes that do not require an extreme-pressure (EP) gear oil
- Rotary air compressors

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

- FDA 21 CFR 178.3570 for incidental food contact
- NSF International H1 and former 1998 USDA H1 guidelines for incidental food contact
- NSF International H2 and former 1998 USDA H2 guidelines for use with no chance of incidental food contact

**Premium
Food-Grade
Machinery Oil;
NSF H1 & H2
Registered**

Contact Information

**U.S. Customer
Service:
1-800-822-6457**

**Technical Hot Line:
1-800-766-0050**

**International
Customer Service:
+1-832-486-3363
+1-832-486-3870**

**E-mail address:
*lubricants@
conocophillips.com***

<http://lubricants.conocophillips.com>

600 N. Dairy Ashford • 2W9000 • Houston, TX 77079

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 Kosher and Pareve

Food Machinery Oil

Typical Properties

ISO Grade	32	46	68	100	220	460
Specific Gravity @ 60°F	0.865	0.868	0.871	0.877	0.876	0.883
Density, lbs/gal @ 60°F	7.21	7.24	7.26	7.31	7.30	7.36
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5	0.5
Color, Saybolt	+30	+30	+30	+30	+30	+30
Flash Point (COC), °C (°F)	204 (400)	216 (420)	221 (430)	221 (430)	263 (505)	263 (505)
Pour Point, °C (°F)	-9 (15)	-9 (15)	-9 (15)	-9 (15)	-9 (15)	-9 (15)
Viscosity,						
cSt @ 40°C	32.0	46.0	68.0	100	220	460
cSt @ 100°C	5.5	7.0	9.1	11.9	22.0	38.0
SUS @ 100°F	165	237	351	520	1,151	2,428
SUS @ 210°F	45	50	57	67	110	125
Viscosity Index	110	110	109	105	120	126
Acid Number, ASTM D974, mg KOH/g	0.05	0.05	0.05	0.05	0.05	0.05
Copper Corrosion, ASTM D130	1a	1a	1a	1a	1a	1a
Demulsibility, ASTM D1401, minutes to pass	30	30	30	30	30	30
Foam Test, ASTM D892	Pass	Pass	Pass	Pass	Pass	Pass
Four-Ball Wear, ASTM D4172,						
Scar Diameter, mm	0.55	0.53	0.50	0.50	0.50	0.50
FZG Scuffing Test, ASTM D5182, Failure Stage	12	12	12	12	12	12
Oxidation Stability,						
TOST, ASTM D943-04a, hours	3,000	3,000	3,000	3,000	3,000	3,000
RPVOT, ASTM D2272, minutes	480	480	480	480	450	450
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass	Pass	Pass

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

Copyright © 2009 ConocoPhillips Company. The ConocoPhillips logo, Conoco, the Conoco logo, Phillips 66, the Phillips 66 logo, 76 and the 76 logo are trademarks of ConocoPhillips Company in the U.S.A. and other countries.