



ISO-9001 Registered Quality System.
ISO-21469 Compliant.

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PRODUCT DATA

LUBRIPLATE FMO-AW LUBRICANTS

“These products are certified OU Kosher Pareve”
“These products are Halal certified”

*NSF International H-1 & HTI Registered
NSF ISO21469 Certification

DESCRIPTION

The LUBRIPLATE FMO-AW Series of Lubricants was developed to meet the ever-increasing demands of pressure, speed and temperature that are placed on modern food machinery. These premium food machinery lubricants are formulated with non-toxic, USP white mineral oils and are fortified with anti-oxidants, corrosion inhibitors, anti-wear agents and foam suppressants. The NSF International has registered them as H-1 lubricants, covering incidental contact with food. As such, they are acceptable as lubricants and anti-rust films on equipment and machine parts used in locations where there is exposure to edible products. These oils are all zinc-free.

APPLICATIONS

- ⇒ Hydraulics
- ⇒ Chains
- ⇒ Gearboxes
- ⇒ Air Line Lubricators
- ⇒ General Oiling

ADVANTAGES

- ⇒ Fortified with maximum strength antioxidant and are thermally and oxidatively stable.
- ⇒ Aerosol package utilizes LUBRIPLATE'S SECURE STRAW DUAL SPRAY NOZZLE

APPROVALS

LUBRIPLATE FMO-2400-AW & FMO-1100-AW have been tested and have passed the:

- ⇒ 12 Stage Four Square Gear (FZG) Test.

LUBRIPLATE FMO-350-AW has passed the following hydraulic pump tests:

- ⇒ Vickers 35VQ25 Vane Pump Test
- ⇒ Vickers V-104C Vane Pump Test
- ⇒ Racine Model "S" Variable Volume Vane Pump Test

And meet the following specifications:

- ⇒ Vickers M-2950-S
- ⇒ Vickers I-286-S

LUBRIPLATE FMO-200-AW has also been tested against and passed:

- ⇒ Racine Model "S" Variable Volume Vane Pump Test

*Registered H-1 by NSF International for use in food processing facilities as a lubricant or anti-rust agent on equipment in which there may be incidental contact involving the lubricated part and the edible product.

The LUBRIPLATE FMO-AW Series contain no components derived from TSE/BSE relevant animal species; therefore, they are compliant with the requirements of the TSE Note for Guidance EMA/410/01 Rev. 3 July 2011.

Typical Test Data – See Back

| <u>PACKAGING AVAILABLE</u> | <u>85-AW</u> | <u>150-AW</u> | <u>200-AW</u> |
|-----------------------------------|----------------|----------------|---------------|
| Carton, 12/1 Quart Plastic Jugs | L0880-054 | L0879-054 | *** |
| Carton, 4/1 Gallon Plastic Jugs | L0880-057 | L0879-057 | L0881-057 |
| 5 Gallon Pail | L0880-060 | L0879-060 | L0881-060 |
| 16 Gallon Drum | L0880-061 | L0879-061 | L0881-061 |
| 55 Gallon Drum | L0880-062 | L0879-062 | L0881-062 |
| Carton, 12/12 oz. Aerosol Cans | *** | *** | *** |
| Carton, 12/14 oz. Plastic Bottles | L0880-067 | *** | *** |
| <u>PACKAGING AVAILABLE</u> | <u>350-AW</u> | <u>500-AW</u> | <u>900-AW</u> |
| Carton, 12/1 Quart Plastic Jugs | *** | *** | *** |
| Carton, 4/1 Gallon Plastic Jugs | L0882-057 | L0883-057 | L0884-057 |
| 5 Gallon Pail | L0882-060 | L0883-060 | L0884-060 |
| 16 Gallon Drum | L0882-061 | L0883-061 | L0884-061 |
| 55 Gallon Drum | L0882-062 | L0883-062 | L0884-062 |
| Carton, 12/12 oz. Aerosol Cans | L0882-063 | *** | |
| <u>PACKAGING AVAILABLE</u> | <u>1100-AW</u> | <u>1700-AW</u> | |
| Carton, 12/1 Quart Plastic Jugs | *** | L0887-054 | |
| Carton, 4/1 Gallon Plastic Jugs | L0886-057 | L0887--057 | |
| 5 Gallon Pail | L0886-060 | L0887--060 | |
| 16 Gallon Drum | L0886-061 | L0887--061 | |
| 55 Gallon Drum | L0886-062 | L0887--062 | |
| <u>PACKAGING AVAILABLE</u> | <u>2400-AW</u> | <u>3800-AW</u> | |
| Carton, 12/1 Quart Plastic Jugs | *** | *** | |
| Carton, 4/1 Gallon Plastic Jugs | L0885-057 | L0888-057 | |
| 5 Gallon Pail | L0885-060 | L0888-060 | |
| 16 Gallon Drum | L0885-061 | L0888-061 | |
| 55 Gallon Drum | L0885-062 | L0888-062 | |

***NSF International H-1 Registration No.'s (Meets former USDA 1998 Guidelines)**

| | | | | |
|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| (85-AW) 122670 | (150-AW) 132661 | (200-AW) 122668 | (350-AW) 122665 | (500-AW) 122664 |
| (900-AW) 122675 | (1100-AW) 122687 | (1700-AW) 122667 | (2400-AW) 122671 | (3800-AW) 122673 |

NSF International HT1 Registration No. (FMO-150-AW)

132661

| PROPERTY | TEST METHOD | TYPICAL RESULTS | | | | |
|----------------------------|-------------|-----------------|-------------|-------------|-------------|-------------|
| | | 85-AW | 150-AW | 200-AW | 350-AW | 500-AW |
| Viscosity SUS @ 100°F | ASTM D-2161 | 102.3 | 146 | 195.9 | 347 | 545 |
| Viscosity SUS @ 210°F | ASTM D-2161 | 39.5 | 43.6 | 47.5 | 55 | 70 |
| Viscosity cSt @ 40°C | ASTM D-445 | 21.26 | 31.39 | 46.92 | 64.61 | 94.8 |
| Viscosity cSt @ 100°C | ASTM D-445 | 3.95 | 5.41 | 6.92 | 8.52 | 11.03 |
| Viscosity Index | ASTM D-2270 | 107 | 107 | 103 | 102 | 101 |
| Color | ASTM D-1500 | L0.5 | L0.5 | L0.5 | L0.5 | L0.5 |
| Gravity | ASTM D-287 | 29.0 | 32.5 | 32.3 | 31.9 | 31.4 |
| Flash Point | ASTM D-92 | 345°F/174°C | 400°F/204°C | 455°F/235°C | 480°F/249°C | 500°F/260°C |
| Fire Point | ASTM D-92 | 365°F/185°C | 450°F/232°C | 490°F/254°C | 515°F/268°C | 555°F/291°C |
| Pour Point | ASTM D-97 | -30°F/-34°C | -20°F/-29°C | -15°F/-26°C | -10°F/-23°C | 5°F/-15°C |
| Neutralization No. | ASTM D-2896 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Aniline Point, °F | ASTM D-611 | 209 | 215 | 230 | 235 | 258 |
| ISO Viscosity Grade | ASTM D-2422 | 22 | 32 | 46 | 68 | 100 |
| AGMA No. | | *** | *** | 1 | 2 | 3 |
| 4-Ball Wear Test | ASTM D-2266 | .43 mm | .39 mm | .41 mm | .36 mm | .38 mm |
| Turbine Oil Oxidation Test | ASTM D-5846 | 10,000+ | Pending | 10,000+ | 10,000+ | 10,000+ |
| | | 900-AW | 1100-AW | 1700-AW | 2400-AW | 3800-AW |
| Viscosity SUS @ 100°F | ASTM D-2161 | 856 | 1126 | 1730 | 2350 | 3864 |
| Viscosity SUS @ 210°F | ASTM D-2161 | 83 | 97 | 120 | 142 | 198 |
| Viscosity cSt @ 40°C | ASTM D-445 | 163.5 | 206.7 | 300.7 | 428.9 | 700.1 |
| Viscosity cSt @ 100°C | ASTM D-445 | 16.09 | 18.47 | 23.25 | 29.62 | 40.98 |
| Viscosity Index | ASTM D-2270 | 102 | 99 | 96 | 98 | 98 |
| Color | ASTM D-1500 | L0.5 | L0.5 | L0.5 | L0.5 | 0 |
| Gravity | ASTM D-287 | 31.0 | 30.5 | 29.5 | 28.6 | 28.3 |
| Flash Point | ASTM D-92 | 475°F/246°C | 455°F/235°C | 440°F/227°C | 445°F/229°C | 425°F/218°C |
| Fire Point | ASTM D-92 | 530°F/277°C | 510°F/266°C | 490°F/254°C | 490°F/254°C | 475°F/246°C |
| Pour Point | ASTM D-97 | 5°F/-15°C | 10°F/-12°C | 10°F/-12°C | 15°F/-10°C | 20°F/-7°C |
| Neutralization No. | ASTM D-2896 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Aniline Point, °F | ASTM D-611 | 259 | 262 | 265 | 269 | 275 |
| ISO Viscosity Grade | ASTM D-2422 | 150 | 220 | 320 | 460 | 680 |
| AGMA No. | | 4 | 5 | 6 | 7 | 8 |
| 4-Ball Wear Test | ASTM D-2266 | .38 mm | .38 mm | .38 mm | .38 mm | .38 mm |
| Turbine Oil Oxidation Test | ASTM D-5846 | 10,000+ | 10,000+ | 10,000+ | 8,000+ | 5,000+ |

STORAGE RECOMMENDATIONS

- ↪ Products should be stored between 40°F-120°F
- ↪ Products should be stored in a dry covered environment
- ↪ Products should not be stored in warm, direct sunlight
- ↪ Improper storage conditions can significantly alter the shelf life of the product. Such conditions would include temperature, moisture, open containers, etc.

