

## Pure Guard FM

Food Grade Lubricant

No. 651



NSF H-1 Certified  
ISO: 32, 46, 68, 100

### DESCRIPTION:

**Pure Guard FM Food Grade Lubricants** are superior quality anti-wear lubricants. They have been specifically formulated for use in equipment where U.S.D.A. H-1 lubricants are specified because of the chance of incidental contamination of food or beverage. They are also intended for use in equipment where the oil may end up in sewers, waterways or other ecologically sensitive areas.

**Pure Guard FM Lubricants** are scientifically compounded with the highest quality U.S.D.A. approved white oils and the most technically advanced, U.S.D.A./ F.D.A. authorized non-toxic performance additives. This advanced technology reduces downtime and lubrication problems caused by exposure to heat, contaminants, and frequent water washing. **Pure Guard FM Lubricants** have specialized oxidation stability resulting in longer oil life and less deposit formation. They offer excellent protection against friction, wear, moisture, acids, and corrosion and are clean and non-staining.

**Pure Guard FM Lubricants** have an extremely high film strength and load carrying capability, and provide cooler, more efficient operation with greatly reduced downtime.

### PERFORMANCE CHARACTERISTICS:

- **U.S.D.A. H-1**  
Registered with the U.S.D.A. as H-1 lubricants and meets the requirements of Title 21 of the Code of Federal Regulations
- **Provides excellent anti-wear protection**  
Special anti-wear additives provide the highest level of protection against wear and scuffing in all types of vane, piston, and gear pumps used in both low and high-pressure hydraulic systems
- **Anti-oxidation protection**  
Oxidation inhibitors and premium quality base oils combine to form a product with outstanding resistance to oxidation and provide the maximum protection against varnish formation at both high and low temperatures. This feature will extend drain intervals
- **Superior rust protection**  
Inhibitors protect both steel and yellow metal surfaces against rust and corrosion
- **Demulsibility**  
Designed to separate rapidly from water.
- **High foam resistance**  
Foam inhibitors provide a high level of foam resistance to prevent pump starvation and damage
- **High viscosity index to ensure viscosity stability**
- **Superior filterability**

### TYPICAL APPLICATIONS:

Recommended for use as premium U.S.D.A. H-1 anti-wear hydraulic fluid in all types of vane, gear, and piston pumps such as:

Sperry-Vickers  
Rexroth  
U.S. Steel

Cincinnati Milacron  
Sunstrand

Denison  
Towler Hydraulic

Also recommended for use in circulating oil systems and in moderately loaded gear sets.

**SUMMARY:**

Food processing and other industries whose equipment requires the use of U.S.D.A. H-1 authorized lubricants have a major problem in protecting against friction, wear, corrosion, and the costly downtime related to these and other lubrication problems. Hydraulic systems are constantly subjected to adverse conditions such as water, heat, long operating intervals, heating and cooling and high pressures. Each of these factors affect the ability of the hydraulic system to provide maximum output when needed. Bearing, pump, valve, gear, motor and cylinder wear are very common. Gum and varnish buildup lead to poor system performance. Oil deterioration and oxidation results not only in excessive wear, but frequent overhauls as well. Deterioration of seals and O-rings lead to increased oil consumption. Commonly used food grade lubricants may meet U.S.D.A. purity requirements but do not provide the best protection to critical components.

**Pure Guard FM Food Grade Lubricants, formulated with newly developed U.S.D.A. authorized non-toxic performance additives will greatly reduce these problems and provide maximum hydraulic system efficiency.**

**TYPICAL SPECIFICATIONS:**

ISO Grade	32	46	68	100
SAE Grade	10	20	20	30
Viscosity @ 40° C, cSt:	32.6	47.4	68.5	97.0
Viscosity @ 100° C, cSt:	5.6	6.92	8.9	11.3
Viscosity Index:	101	101	103	103
Flash Point, COC, °F	420	440	450	495
Pour Point, °F:	5	10	10	10
Color, Saybolt:	+30	+30	+30	+25
API Gravity:	33.1	32.6	32.1	31.7
Corrosion test, Steel, (ASTM D665) Procedure B:	Pass	Pass	Pass	Pass
Rotating Bomb (ASTM D-2272) (Min.):	190	190	190	190
Four Ball Test (DIN 51350, part 3) 1 hour @ 40 kg (mm):	0.35	0.35	0.35	0.35
Oxidation Stability, TOST, ASTM D-943, hr <sup>1</sup>	15,000+	15,000+	15,000+	15,000+

Vickers M-2950-S <u>Run No.</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>Specification M-2950-S</u>
Vane Weight Lose (mg)	4.7	6.1	6.0	15
Ring Weight Lose (mg)	15.9	17.5	14.8	75
TOTAL WEIGHT LOSS (mg)	20.623.6		20.8	90

Typical test data are average values only

**PERFORMANCE PRODUCTS GUARANTEED**