

## PURE GUARD FM

Food Grade Gear Oil

No. 652



NSF H-1 Certified  
ISO: 220, 320, 460

### DESCRIPTION:

**Pure Guard FM Food Grade Gear Oils** are superior quality anti-wear adhesive/cohesive 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 Food Grade Gear Oils** 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 Gear Oils** 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 Gear Oils** have an extremely high film strength and load carrying capability, and provide cooler, more efficient operation with greatly reduced downtime.

The adhesive/cohesive additives enable **Pure Guard Gear Oils** to cling to the wearing surfaces, preventing dry startup, a common problem in gearboxes. Dry Startup can contribute to premature gear and bearing failure.

### 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 gear cases and gear pumps.
- **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**

### TYPICAL APPLICATIONS:

Recommended for use as premium U.S.D.A. H-1 lubricant for applications such as:

Inclosed Gear Cases  
Drip Oilers

Speed Reducers  
Exposed Gears

Power Drivers  
Chains

**PERFORMANCE PRODUCTS GUARANTEED**

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**SUMMARY:**

Food processing and other industries whose equipment require 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. Gear 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 gear system to provide maximum output when needed. Gear, bearing, bushing, thrust washer and seal 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 GEAR OILS, formulated with newly developed U.S.D.A. authorized non-toxic performance additives, will greatly reduce these problems and provide maximum system efficiency.**

**TYPICAL SPECIFICATIONS:**

<b>ISO Grade</b>	<b>220</b>	<b>320</b>	<b>460</b>
<b>AGMA</b>	<b>5EP</b>	<b>6EP</b>	<b>7EP</b>
Viscosity @ 40° C, cSt:	215	320	450
Viscosity @ 100° C, cSt:	24.3	27.3	41.0
Viscosity Index:	114	116	120
Flash Point, COC, °F	465	465	470
Pour Point, °F:	+15	+15	+15
Color, Saybolt:	+25	+25	+25
API Gravity:	30.6	29.8	29.1
Corrosion test, Steel, (ASTM D665) Procedure B:	Pass	Pass	Pass
Four Ball EP Test, kg (ASTM D2596)	400	400	400
Four Ball Wear Test (DIN 51350, part 3) 1 hour @ 40 kg (mm):	0.38	.38	0.38

Typical test data are average values only.