

# SYF-990/ GEARPLUS FG

SYNTHETIC (PAO) GEAR OIL

## Product Description

Fully synthetic gear oil for the lubrication of all closed toothed gears, liquid lubrication of chains, hinges, guides, armatures, roller and plain bearings in the whole food and beverage industry as well as in breweries, when physiologically harmless lubricants are required. This product has excellent extreme pressure performance, and heavily loaded toothing against Micro pitting. SYF-990 High performance, 100% Synthetic industrial gear oils are designed to provide optimum equipment protection and oil life even under extreme conditions. Poly alpha olefin (PAO) technology has been selected for its exceptional oxidation resistance and thermal properties, naturally high viscosity index, excellent low temperature fluidity and absence of undesirable compounds that are often found in mineral oils. The high viscosity index and low traction coefficient of this oil combine to help provide significant reduction in power consumption in many gear drives.

Registered by NSF (Class H1) for use where there is potential for incidental contact with food. These products meet the former guidelines (1998) of the US Department of Agriculture Food Safety and Inspection Service (USDA FSIS) for H1 use (lubricant with incidental food contact) and listed in Miscellaneous Publication List of Proprietary Substances and Nonfood Compounds". Product contains only substances permitted under US 21 CFR 178.3570, for use in lubricants with incidental food contact.

## Application Method

For optimum effect clean thoroughly the lubrication points first mechanically and then, before initial filling of gears removes corrosion protection agent. Fill gear so that the dipping teeth receive lubricant for sure. Apply sufficient amount with a brush, dripping oiler, by dipping or central lubricating systems. Instructions of the gear and machine manufacturer have to be observed. Re-lubrication intervals and amount to be defined accordingly, to the service conditions.

**Performance Standard: DIN 51517 PART-3, US STEEL 224.**

## Features & Benefits

- Superb protection from micro pitting fatigue wears as well as high resistance to traditional scuffing wear.
- Excellent resistance to degradation at high temperatures.
- Low traction PAO base stocks for improved gear efficiency.
- High viscosity index base stocks reduce viscosity change with temperature.
- Excellent resistance to rust and corrosion and very good demulsibility.
- Outstanding filter life, even in presence of water.
- Excellent compatibility with common gearbox materials of construction and with mineral-based gear oils.

**PETRELPLUS INC.**

One World Center, Tower One, 9<sup>th</sup> Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013  
mail-marketing@petrelplus.com, [www.petrelplus.com](http://www.petrelplus.com)

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## Technical Data

PROPERTIES	VG-100	VG-150	VG-220	VG-320	VG-460	VG-680
ISO Viscosity Grade	100	150	220	320	460	680
Type	Synthetic oils	Synthetic oils	Synthetic oils	Synthetic oils	Synthetic oils	Synthetic oils
Viscosity, ASTM D 445cSt @ 40° C Mm2/s	100	150	220	320	460	680
cSt @ 100° C Mm2/s	13.14	19.5	26	35	45.6	62.2
Viscosity Index, ASTM D 2270	140	150	150	155	155	160
Pour Point, °C, ASTM D 97	-45	-45	-36	-33	-30	-22
Flash Point, °C, ASTM D 92	275	280	285	300	310	310
Specific Gravity @15.6° C kg/l, ASTM D 4052	0.86	0.86	0.87	0.88	0.89	0.9
FZG Scuffing, DIN 51345 (mod) A/16.6/90, Fail Stage	13+	13+	13+	13+	14+	14+
4-Ball Wear test, ASTM D 4172, mm(Mod 1,800 RPM, 20kg, 54° C, 60 Minutes)	250	250	250	250	250	250
Rust protection, ASTM D665, Sea Water Separability, ASTMD 1401, Time to 40/37/3 at 82° C, minutes	PASS	PASS	PASS	PASS	PASS	PASS
Foaming Characteristics, ASTM D	0/0	0/0	0/0	0/0	0/0	0/0
892, Seq. II, Tendency/Stability,ml/ml	0/0,00	0/0,00	0/0,00	0/0,00	0/0,00	0/0,00

**Available Packs -5, 20 and 210 Litres**

**Shelf Life- 36 Months from manufacturing month.**

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.

\*All related specifications are meets or exceeds.

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# Material Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product** SYF-990/ GEARPLUS FG  
SYNTHETIC FOOD GRADE  
LUBRICANT

**Supplier** PETRELPLUS INC.  
One World Center, Tower One, 9<sup>TH</sup>  
Floor, Senapati Bapat Marg, Lower  
Parel, Mumbai-400013, Maharashtra.  
Call # +91 22 6216 7072  
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## 2. COMPOSITION

1-Decene, Homo polymer, Hydrogenated Proprietary additives

## 3. HAZARDS IDENTIFICATION

Not classified as hazardous. Other Hazards:

## 4. FIRST-AID MEASURES

**RESPIRATORY SYSTEM** Remove to fresh air and get medical attention.

**INGESTION** Do not induce vomiting. Wash mouth out with water and obtain medical attention.

**EYES** Rinse immediately with plenty of water for at least 10 minutes. Get Medical Attention.

**SKIN** Remove contaminated clothing. Wash affected area with soap and water, get medical attention.

## 5. FIRE-FIGHTING METHODS

Foam, carbon dioxide or dry power

## 6. ACCIDENTAL RELEASE MEASURE

Contain and absorb in sand or earth. Ensure no material enters drains or water courses. Dispose of as solid waste in accordance with the relevant waste disposal regulations.

## 7. STORAGE AND HANDLING

Store in delivery packs in a cool dry place

### HANDLING

At ambient temperatures wear gloves overalls and eye protection. The work area should be adequately ventilated. No eating drinking or smoking in the work area.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Exposure Standard:** The substance with exposure limit is: Notation 1: Exposure Standard: 2nd substance with exposure limit is: Notation 2:

### PERSONAL PROTECTION

#### Respiratory Protection:

Type of Cartridge (if Applicable):

**Eye Protection:** Safety Spectacles

**Hand Protection:** Gloves butyl or nitrile rubber

**Industrial Hygiene:** No eating drinking or smoking in the work area Ventilation: At room temperature handle in a

well-ventilated area. Use exhaust ventilation if exposure to flume or aerosol can occur.

## PROTECTION AGAINST FIRE AND EXPLOSION

Combustible but not readily ignited. No explosion hazard.

**EC SAFETY PHRASES** Not classified as hazardous.

## 9. TYPICAL PROPERTIES:

Flash Point °C 275 to 310

Viscosity @ 40 °C CST 100 to 680

Viscosity Index 140 to 160

## 10. STABILITY AND REACTIVITY

### HAZARDOUS REACTIONS

#### Comments

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition produces noxious fumes.

## 11. TOXICOLOGICAL INFORMATION

LD50 Acute Oral Toxicity: > 5000: mg/Kg:Rat

LC50 Acute Inhalation: mg/1 :

Eye Irritation: No: Rabbit

Skin Irritation: No.: Rabbit

Sensation: No:

Further Information:

## 12. ECOLOGICAL INFORMATION

LC50 (96 Hour): mg/1

EC50 (24 Hour): mg/1

Biodegradability (Coupled units):

## 13. DISPOSAL CONSIDERATIONS

Solid material should be incinerated. Material absorbed on sand should be disposed of as solid waste.

## 14. TRANSPORT INFORMATION

IMDG No.: Not classified

Packing Groups: IATA-DGR

Class No.: Not classified TREMCARD: Not classified

RID/ADR Class No.: Not classified Other Information

## 15. REGULATORY INFORMATION

Classification and labeling according to EC Directives 67/548

Not classified as hazardous. EC Risk Phrases Not classified as hazardous. Other Hazardous EC Safety Phrases Not classified as hazardous

## 16. OTHER INFORMATION

### PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer to ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.

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