

# **Technical Data Sheet**



# SYF-990 TURBINEPLUS FG

FOOD GRADE HIGH-PERFORMANCE TURBINE OIL FOR GAS AND STEAM TURBINES

# **Product Description**

Effectively simplifying your lubricant decision making, the SYF-990 TURBINEPLUS, compatible with most existing turbine oils, performs across a varied range of features. This oil meet BS489/1983, GE GEK27070, IS: 1012 1987-1987 (Reaffirmed), and BHEL Turbine oil requirements.

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.

# **Applications**

These are high performance Turbine oils used for Gas and Steam Turbines.

#### **Benefits**

- Excellent demulsibility Optimum water separation at different temperatures.
- Oxidatively stable Longer system life.
- Low volatility -Reduced maintenance, reduced top-off.
- Corrosion protection- Enhanced system reliability and reduced down-time.
- Excellent lubricity Increased efficiency, reduced cost of operation.

## **Performance Standards**

- Turbine oil requirements of BHEL
- BS 489/1983
- GE, USA specification GEK-27070
- IS:1012 1987-1987(Reaffirmed)



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# **Typical Properties**

SYF 990 TURBINEPLUS	32	46	68
ISO VG Grade	32	46	68
Viscosity, ASTM D 445			
cSt @ 40°C	30-33	44-48	64-70
cSt @ 100°C	5.5	6.8	8.6
Viscosity Index, ASTM D 2270	117	113	110
Flash Point, (COC), °C Min	200	200	210
Pour Point, °C Max	-6	-6	-6
Neutralisation No. mg KOH/gm	0.2	0.2	0.2
Rust Test, (D-665 A&B, 24 hrs.)	Pass	Pass	Pass
RPVOT, ASTM D2272, minutes	1000	1000	1000
TOST, time to 2.0 NN hours,			
ASTM D943, hour  Air Release, 50°C, mins, ASTM D3427	10000 2	3	7000
Demulsibility, @54°C, time to 3ml emulsion, ASTM D1401, minutes	10	10	10

Available Packs: 5, 20, 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.

# **Material Safety Data Sheet**



#### PRODUCT AND COMPANY IDENTIFICATION

SYF-990/ TURBINEPLUS FG **Product** 

(NSF Certified, Category H1)

One World Center, Tower One, **Supplier** 

9th Floor, Senapati Bapat

Marg,

Call # +91 22 6216 7072 (Monday to Friday) Cell # +91 93522 25457 marketing@petrelplus.com www.petrelplus.com

#### 2. COMPOSITION

1-Decene, Homo polymer, Hydrogenated Proprietary additives

#### HAZARDS INDENTIFICATION

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.

#### **FIRE-FIGHTING METHODS**

Foam, carbon dioxide or dry power.

#### ACCIDENTAL RELEASE MEASURES

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 Storage

1: 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.

### **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.

### PHYSICAL AND CHEMICAL PROPERTIES

9. PHISICAL AND C	TEMICAL PROPERTIES		
Physical state	Liquid		
Colour	Amber		
Odour	Not available		
Ph	Not available		
Melting point	Not available		
Boiling Point	Not available		
Drop Point	Not available		
Flash Point	Closed cup: >195°C (>383°F) [Pensky-		
	Martens.]		
	Open cup: 230°C (446°F) [Cleveland.]		
Vapour pressure	Not available		
Vapour density	Not available		
Density	876.3 kg/m³ (0.876 g/cm³) at 15°C		
Solubility	insoluble in water		
Kinematic Viscosity at 40°C	C 68.39 mm2 /s (68.39 cSt)		
Kinematic Viscosity at 100°C	C 8.76 mm2 /s (8.76 cSt)		



#### 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: 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 INFOMRATION

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

Directives 67/548 Not classified as hazardous. EC Risk Phrases Not classified as hazardous. Other Hazardous EC Safety Phrases Not classified as hazardous

Classification and labeling according to EC

#### 16. OTHER INFORMATION: PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer: - 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.

DISCLAIMER/USER'SRESPONSIBILITY: PETRELPLUS INC. provides the information contained herein good faith but makes no representation as to its comprehensive necessary accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriate use.