

# **Technical Data Sheet**







# SYF-990 SYNTHETIC CHAIN OIL

SUITABLE FOR INCIDENTAL FOOD CONTACT (NSF CERTIFIED, CATEGORY H1)

# **Product Description**

SYF-990 SYNTHETIC CHAIN OIL Food Grade Lubricant is a high temperature lubricant which has been specifically formulated with synthetic base stocks having unusually high temperature lubricating capability up to 250°C.

The product is approved by NSF International as H1 grade Lubricant. The product meets requirements of USDA H1\* 21 CFR. (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 No 1419 "List of Proprietary Substances and Nonfood Compounds". Product contains only substances permitted under US 21 CFR 178.3570, 178.3620 and 182 for use in lubricants with incidental food contact.)

SYF-990 Synthetic Chain Oil Careful selection of additives result in a fluid which resists high temperature decomposition and prevents the formation of sludge or carbon normally produced by petroleum based products. This results in longer equipment life, less maintenance, better efficiency, while costly downtime is significantly reduced.

# Features & Benefits

- Excellent high temperature oxidation resistance.
- Superior thermal stability for prolonged lubricant life.
- Extremely low volatility/less lubricant consumption.
- Outstanding anti-wear properties/reduced chain drag.

They do not contain any natural products derived from animals, nuts or genetically modified organisms (GMOs). It is

Suitable for use where vegetarian and nut-free food is prepared and do not promote the growth of bacteria or fungal organisms.



# **Technical Data**

PROPERTIES	Test Method	15	32	180	220	320	460
Specific Gravity	ASTM D1296	0.82	0.95	0.95	0.95	0.95	0.95
Flash Point °C	ASTM D92	216	>240	>290	>290	>290	>290
Viscosity @ 40 °C CST	ASTM D45	18	32	180	220	320	460
Viscosity @ 100 °C CST	ASTM D45	4.0	6.1	19.6	23.3	29.6	48
Pour Point. °C	ASTM D97	-60	-55	-28	-10	-10	-10

# THERMAL STABILITY OF SYF-990 SYNTHETIC CHAIN OIL V/S A COMPETITIVE SYNTHETIC CHAIN **LUBRICANT**

	COMPETITIVE SYNTHETIC CHAIN LUBRICANT	SYF-990 SYNTHETIC CHAIN OIL
Viscosity increase, 210 ° F.(98.9 °	+ 6.40	+ 2.59
C) %		
Wt. Loss, %	- 4.67	- 0.98

Test samples maintained at 300  $^{\circ}$  C. (140  $^{\circ}$  C.) for 48 hrs.

# THERMOGRAVIMETRIC EVALUATION OF SYF-990 CHAIN OIL V/S COMPETITIVE SYNTHETIC **CHAIN OIL**

Temperature, ° C (° F) @	COMPETITIVE SYNTHETIC CHAINLUBRICANT	SYF-990 SYNTHETIC CHAIN OIL
10% sample weight loss	280 (536)	320 (608)
50% sample weight loss	325 (617)	365 (689)
90% sample weight loss	345 (653)	385 (725)

Test sample temperatures were increased at a rate of 10 °C. (50 °F)/min. in a nitrogen atmosphere

Available Packs: 1, 5, 20, 50, 210 Ltr.

Shelf Life: 36 Months from the 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.

<sup>\*</sup>All related specifications are meets or exceeds.



# **Material Safety Data Sheet**

# 1. IDENTIFICATION

PRODUCT: - SYF-990/ SYNTHETIC CHAIN OIL (SYNTHETIC FOOD GRADE LUBRICANT NSF

Certified, Category H1)

**Supplier**: - Petrel plus Inc.

One World Center, Tower One,9<sup>Th</sup> Floor,

Senapati Bapat Marg, Lower Parel,

Mumbai-400013, Maharashtra.

Call # +91 22 6216 7072 (Monday to Friday)

Cell # +91 93522 25457

marketing@petrelplus.com www.petrelplus.com

#### 2. COMPOSITION

Synthetic Ester Base Oil, Proprietary additives

#### 3. 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.

#### 5. FIRE-FIGHTING METHODS

Foam, carbon dioxide or dry power.

#### 6. 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

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 wellventilated 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:

Viscosity @ 40 °C CST 18 to 460

Flash Point °C >290

Specific Gravity 0.82 To 0.95

#### 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

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: -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'S RESPONSIBILITY:

PETRELPLUS INC. Provides the information contained herein in good faith but makes no representation as to its comprehensiveness or 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. The Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.