



Petrelplus[®]₊



FOOD GRADE LUBRICANT

SPECIAL LUBRICANTS FOR FOOD, BEVERAGES,
PHARMACEUTICAL, COSMETIC & TOBACCO INDUSTRIES.

WWW.PETRELPLUS.COM

PERFORMANCE, PROFIT & PETRELPLUS

The food processing industry presents unique challenges to lubricant formulation engineers, lubricant marketers, plant lubrication engineers, equipment designers and builders. While it is never desirable for lubricants to be allowed to contaminate raw materials, work -in-progress or finished product, the consequences of the lubricant contaminated product is rarely more acute than in the food processing industry. As such, lubricants used in this industry have requirements, protocols and performance expectations that go well beyond typical industrial lubricants.

The manufacturers of food products and beverages have to make the most of their production machinery, including maximum food safety, maximum production cost, minimum costs, with minimum labour. These goals can be reached in several ways. One of the major contributors, however, is often disregarded the choice of the right lubricants and they are applied.

Among plant operating costs, lubricants account only about one percent of the total budget. Yet they have a major influence on the total operating costs. Good lubrication management will have a tangible effect on the three biggest items in operating costs.

When choosing your lubricants, consider more than just the actual purchasing costs. It's good to bear in mind how much lubricant you are going to need, how often you will re-lubricate, how much time re-lubrication take and how often your machines will have to be stopped. If re-lubrication intervals become longer, you will consume less lubricant and have less to send for disposal. This will not only save you money but reduce your impact on the environment as well. The same applies to spare parts because special lubricants made by Petrelplus make component last longer.

The selection of the right lubricant can play a vital role in food Safety. Product recalls can cost the manufacturer an enormous amount of and money if not their reputations. Innumerable regulations have to be observed in the production of food, on hygiene, regarding the machineries or the materials used maintenance technicians, production and quality managers have to take all these regulations into account for the selection of lubricants.

Lubricating equipment used in the food processing industry presents a unique challenge.

The lubricant must provide the basic desired technical performance. The lubricant must comply with acceptable industry standards on the use of approved base fluids and additives.

Manufacturing in accordance with GMP standards.

All lubricants from PETR ELPLUS listed in this brochure conform with the requirements set forth in FDA 21 CFR 178.3570 and are registered as NSF HI. Furthermore, all our production sites manufacturing HI lubricants and the HI lubricants manufactured there are certified by NSF according to the new international standards. This standard lays down hygiene requirements for the formulation, manufacture and use of lubricants that could have unintentional contact with the product. It is also required the lubricant manufacturers to develop a hygiene strategy with a view to chemical, physical and biological risks in the intended lubricant applications.

The lubricants are developed for incidental contact with products and packaging materials in the food processing, cosmetics, pharmaceutical or animal feed industries. The use of all the lubricants can contribute to increased reliability of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP. (Hazard analysis and critical control point)



**FOOD | BEVERAGES |
PHARMACEUTICALS COSMETICS |
TOBACCO INDUSTRIES**



WHAT IS NSF?

THE NATIONAL SANITARY FOUNDATION INTERNATIONAL

NSF International is a public health and safety company, a not for profit non-governmental. It is a world leader in standards development, product certification, education and risk management. For 60 years NSF has been committed to public health safety and protection of the environment. While focusing on food, water, indoor air and the environment, NSF develops national standards, provides learning opportunities through its center for public health education, and provides third-party conformity assessment services while representing the interests of industry, the regulatory community and the public at large.

NSF is widely recognized for its scientific and technical expertise in the health and environmental sciences. Its professional staff includes engineers, chemists, toxicologists and environmental health professionals with broad experience both in public and private organizations.

Serving manufacturers operating in 80 countries. NSF was founded in 1944 and is headquartered in Ann Arbor, Michigan. The NSF mark is recognized for its value in international trade around the world and is respected by regulatory agencies at the local, state and federal levels.

Source: www.nsf.org



All ISO Viscosity and NLGJ Grades available for fluid and greases.

Contact the expert for Petrelplus to provide you with support to meet your incidental requirement & Product Data Sheet (PDS) from consulting to optimum management at info@petrelplus.com

H1 Classified Oils/Sprays

SYF-990 / HYDROPLUS FG

This oils for high pressure applications, suitable within a wide temperature range. Due to their very good surface wetting properties these special oils offer excellent long-term lubrication. Thus, they are ideally suited for the lubrication of hydraulic systems, gears, chains, bearings, lifters etc.



- High pressure resistance
- Very good ageing and oxidation stability
- Excellent wear protection
- High oil purity

SYF-990 / GEARPLUS FG

Fully synthetic gear oils with high oxidation resistance. The Gear Oil Series oils are also suitable for the long-term lubrication of chains and spindles due to their wide operating temperature range. They form a protective lubricating film on metal surfaces and maintain low friction coefficients even at high loads.



- Long oil change intervals
- High load carrying capacity
- High adhesion and creeping effect
- Low evaporation losses

SYF-990 / GEARPLUS FGHT

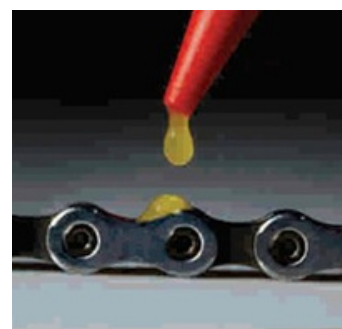
These synthetic oils are suitable for the application at high temperatures. The high performance lubricants are characterized by very good pressure absorption capacity and high heat stability. Suitable for all types of gears where high temperature arise.



- High oxidation resistance
- Excellent wear protection
- Extended oil change intervals
- Compared to mineral oils

SYF-990 / CHAIN FLUID FG

Solid-free high temperature chain oils for the lubrication of conveyor chains in the packaging industry. These products minimise lubricant consumption on conveyor chains in high temperature ovens and dryers and prevent residues as well as smoke formations even at high temperatures.



- Outstanding temp./viscosity properties
- Excellent wear protection
- Optimum corrosion protection
- Extremely resistant against ageing

H1 Classified Oils/Sprays

SYF - 990 /CHAINFLUID PLUS

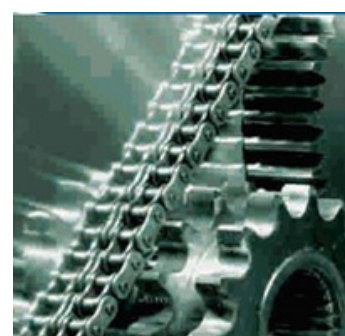
Synthetic oil with especially selected E P additives for the lubrication of load, drive and transportation conveyerchains. This lubricant avoids residues and is suitable for operating temperatures up to 240 °C (464 °F). Recommended to use for food and pharmaceutical industries



- High load carrying capacity
- Excellent temp./viscosity properties
- Good wear protection
- Low evaporation

SYF - 990 / CHIANFLUID FGHT

This synthetic oil evaporates without residues at high temperatures. Applied at above 220 °C (428 °C) it forms a smooth dry film with good lubricating properties up to +900 °C {428 °F} (1,652 °F). This oil can use wherever risk of fire in bakery tunnel ovens. Apply cold chains only.



- Odourless
- Temperature and oxidation resistant
- High mechanical load capacity
- Good dry running properties

SYF - 990 / COMPRESSOR PLUS FG

Physiologically harmless compressor oils for high and low operating temperatures. These special oils are particularly suitable for the long-term lubrication of e. g. piston or screw compressors and enable oil change intervals up to 8,000 hours.



- Low oil consumption
- Increase compressor performance
- Minimise operating temperature
- Optimum protection against friction & wear

SYF - 990 / GENERAL PURPOSE FG

Taste and odourless universal oil for the food, beverage, cosmetic and pharmaceutical industries. Suitable in applications that require excellent lubrication and friction reducing properties at operating temperatures up to 220 °C {428 °F}. This oil minimises friction on metal surfaces.



- Excellent wetting properties
- High oxidation stability
- No resinification or sticking
- Very good lubricating film load capacity

H1 Classified Oils/Sprays

SYF - 990 / FREEZPLUS FG

Refrigeration and Compressor Oils is a line of premium synthetic refrigeration lubricants formulated with PAO or PAE base stocks. These oils have excellent thermal stability and extremely low pour points for use in refrigeration and other compressors in severe industrial service.



- Thermal Stability
- Long Drain
- For CFC / HCFC
- Optimize Equipment

SYF - 990 / GENERAL PURPOSE FGHT

Universal oil with special PTFE - additives that provide optimum lubricating properties and protection against friction and wear. This oil is taste & odourless general purpose lubricating oil & work up to 600 °C {1180 °F}



- Water displacing & high pressure resistant
- Optimum creeping and lubricating properties
- Extend machine life
- Good surface wetting

SYF - 990 / VACUUM PLUSFG

Synthetic high performance lubricants based on perfluorinated polyether. These lubricants show excellent performance at high temperatures up to 300 °C (572 °F), thus enabling long lubricating intervals. These thermally and chemically stable lubricating oils have excellent lubricating properties. They are used as a sealing agent in oxygen, vacuum and fitting applications and as dielectric hydraulic and heat transmission liquids.



- Non-flammable
- Very low evaporation
- No residues
- High pressure resistance

SYF - 990 / VACUUM PLUSFGHT

Fully synthetic special oils for the application in vacuum pumps. They are suitable for the application in a wide temperature range and are resistant to high pressures. Moreover, they are resistant to oxidation and protect extremely well against wear. They are resistant at high temperature and high speed machines.

- Neutral towards elastomers and plastics
- High load carrying capacity
- Low coefficient of friction
- Prevent corrosion of nonferrous metals

H1 Classified Oils/Sprays

SYF - 990 / THERMO PLUS FG (HEAT TRANSFER FLUID)

Fully synthetic, nontoxic heat transfer fluid with specially selected additives to provide outstanding protection & heat transfer suitable for food processing or pharmaceutical operation with bulk operating temperatures 325°C (625°F), for central cooking facility, drying edible oil, deodorizing and the heating deep fruit oils. These oil have extra properties for very low oxidation.



- Reduce oxidation
- Improved heat transfer
- Low vapour pressure
- Minimum operating Cost

SYF - 990 I FRHF FG (FIRE RESISTANT HYDRAULIC FLUID)

This is a fire-resistant, water-glycol based hydraulic fluid that is as a lubricant with incidental food contact, for use in and around food processing areas. It provides excellent lubricity, imparts resistance against corrosion and rusting, This is oxidatively stable, and will prolong the service life of equipment. Machinery can run longer between routine maintenance and cleaning. This is water soluble and in the event of a leak or spill, is easily cleaned up without the use of solvents that can contaminate food. It was developed for food processing applications, such as fryers, ovens, cookers and other heat applications.



- Water Soluble
- ' Reduce Operating Cost
- Extra Lubricity
- Anti corrosive

H1 Classified Cleaning Agents/Solvents

SYF - 990 / CLEANSYNTH FG (RELEASE AGENTS)

Sugar dissolving lubricant for the lubrication of rocker arms, joints, lifters, spindles, chains and pinners. Due to its high density it penetrates mineral oil based emulsions and allows a smooth lubricant change. These oils have sugar dissolving without taste and odourless also reduce sugar build upon chain for increased life. These oils allowing penetration to the friction point.



- Good surface wetting
- Wide operating temperature range
- Water soluble
- Good Metal Affinity

SYF-990/CLEANSYNTH / VG-1 & VG-2 (RELEASE AGENTS)

Fully synthetic, liquid cleaning and dispersing agents that are very compatible with metals and elastomers. They are suitable as carrier medium for the food processing industry to dilute lubricants. These oils have to use stable aqueous solution of synthetic lubricating fluid for especially use in confectionery.



- Easy removal and cleaning of oil, grease
- Remove wax and adhesives
- Evaporates without residues
- Good creeping properties

SYF - 990 / SILICONFLUID FG

Silicone oils with a wide temperature range up to 250 °C (482 °F) and excellent low temperature properties. These transparent polymethylsiloxanes have extraordinary separation efficiency and are compatible with most seals and elastomers. Therefore, they are ideally suited as release and lubricating agents for material pairing plastic | metal or plastic/plastic.



- Low pour point
- Good viscosity & temperature behavior
- High surface activity
- High compressibility

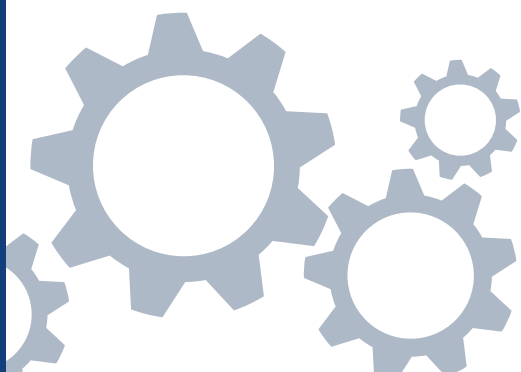
H1 Classified Cleaning Agents/Solvents

SYF - 990 / PROSYNTHCUT FG (CUTTING FLUID)

Fully synthetic cutting oils, ideally suited for the lubrication of cross cutters and disc-cut systems in the paper and corrugating industry. Specially selected draw materials ensure good adhesion and excellent lubricating properties. These cutting fluid have 100% nitrate and chlorine free with extra emulsifiable coolant chemistry. These PROSYNTHCUT FG provide excellent rust protection .



- Dissolves sugar
- Wide operating temperature range
- Protect reliably against friction & wear
- Excellent cleaning properties



H1 Classified Greases / Pastes

SYF - 990 / DRAWPLUS FG (DRAWING & PUNCHING FLUID)

This is a high quality food grade solvent oil. It is also suitable for pressing and drawing of aluminum sheets for production of containers, trays and caps used in pharmaceutical and food industry and blanking of grates, fins and heat exchangers used in mechanical and electrical industries .



- Odourless
- No Chlorine
- No Sulfur & Chlorine
- Extend Tool Life

SYG-990 / SILICON GREASE EP

Silicone grease with good lubricating properties, particularly at low and high temperatures. This product has been developed for the lubrication of fittings with EPDM seals as well as rubber seals in filling machines. It is neutral towards elastomers and resistant to disinfectants and cleaning solutions.



- Taste- and odourless
- Good temperature behavior
- Neutral towards froth
- Excellent sealing compatibility

SYG-990 / SILICON GREASE

Silicone grease for the application within a wide temperature range. This product is neutral towards elastomers such as NBR, EPDM and rubber seals. This silicone grease to lubricate and locate O-rings, also prevent the ingress of water into electrical equipments.



- Physiologically harmless
- Especially suitable at high & low temp
- Neutral towards froth
- Excellent sealing compatibility

SYG-990 / FGHT GREASE

Adhesive lubricants, suitable for the lubrication of beer and bar fittings as well as dispenser installations . These lubricants perform well due to their very good cold and hot water stability as well as their outstanding neutral behavior towards froth.



- Taste and odourless
- Disinfectant & cleaning solutions
- Resistant to milk and fruit acids
- Works with low temperature

H1 Classified Greases / Pastes

SYG-990 / FGHT GREASE- 2

Special grease for the application in e. g. valves, taps or fittings. It has very good lubricating properties and excellent oxidation resistance. Moreover, it is very adhesive and resistant to steam. This non corrosive grease suitable for bottling & other industries.



- Neutral towards froth
- Physiologically harmless
- Excellent properties
- Works with high temperature

SYG-990 / SSFG GREASE

Semi-synthetic universal greases with good adhesion properties. These greases are suitable for guide ways and sliding elements such as cylinder guide ways, rollers, cam discs, gear racks, tubular rails, return stations in circular conveyors and miscellaneous bearings inside and outside cooling sections.



- SYG-990 / ALFG Grease
- Taste and odourless
 - Resistant to cold and hot water
 - Good adhesion
 - Excellent protection against wear

SYG-990 / ALFG GREASE

Synthetic special greases resistant to high temperature and oxidation. They are suitable for the lubrication of roller and journal bearings. These products show very good lubricating properties with a low friction coefficient and protect very well against corrosion and wear.



- Resistant to cold and hot water
- High load carrying capacity
- Excellent corrosion protection
- Outstanding thermal stability

SYG-990 / ALFG GREASE

These long-life high temperature greases are characterized by their high thermal stability and optimum wear protection. They are neutral towards most elastomers and are very media resistant. The synthetic special lubricants are mostly applied in roller bearings and conveyor rollers.



- Non-flammable
- Very good friction and wear
- Optimum corrosion protection
- High ageing and oxidation stability

H1 Classified Greases / Pastes

SYG-990 / ALFG-HT GREASE

Metal-free assembly and release paste with HI registration for the use in high temperature applications up to 1.200 °C (2,192 °F). The assembly paste offers consistent lubricating and separation properties, even at high surface pressure within a wide temperature range.



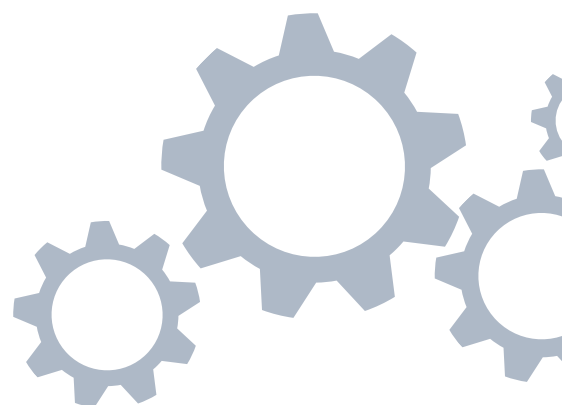
- Low friction coefficient
- Long maintenance intervals
- Tribo corrosion
- Offers optimum protection against

SYG-990 / OC GREASE (OXYGEN COMPATIBLE GREASE)

A perfluoroether based product which uses the latest grease technology and technical developments to deliver high performance under the most extreme conditions of load and temperatures. This is NON TOX I C making it safe to use in food and pharmaceutical production areas.



- Use for diving equipment
- Outstanding chemical resistant
- Non corrosive
- Works with heavy load & temperature



H1 Lubricants For Pharmaceuticals Industries

- AUTOCLAVE
- BLISTER PACKAGING MACHINES
- CAPSULE FILLING MACHINES
- CARTONING MACHINES
- CHAINS
- COATER FLUIDISED BED SYSTEMS
- COMPRESSORS
- DRAWINGS
- FILLING MACHINE (Liquid)
- GEARS
- GRANULATING MACHINES
- HYDRAULIC SYSTEMS
- MECHANICAL SEALS
- PEELER CENTRIFUGE
- PNEUMATIC DRIVES
- ROLLER BEARINGS
- SEAL LUBRICATIONS
- SEPARATORS
- SLIDE WAY
- TABLET PRESS
- VALVES
- PUNCHING MACHINES



H1 Lubricants For Food & Beverages Industries

- AIR RECIPROCATING COMPRESSORS
- AIR ROTARY VANE COMPRESSORS
- AIR SCREW COMPRESSORS
- CAPERS BEARINGS & SLIDING SHAFTS
- CONVEYOR BEARINGS
- ENCLOSED GEARS (Spur, Bevel And Worm Gears)
- FILLING MACHINES
- HIGH TEMPERATURE BEARING LABELLING MACHINES
- LIFTING ROD GUIDES
- OPEN OR
- SEALING AND FILLING
- VACUUM PUMPS
- PALLETISERS DRIVES & CONVEYOR CHAINS
- PLASTIC SLATED CONVEYORS
- PNEUMATICS HYDRAULICS
- REFRIGERATION COMPRESSORS
- ROLLER BEARINGS
- SCREW THREADS
- SEAMERS WITH OIL CIRCULATION MACHINES
- TRANSPORT & DRIVE CHAINS





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