High Performance Lubricants for the Food Industry

FOOD CONTACT LUBRICANTS

FUNCTIONS

Lubricants for the production, processing, and packaging of food and beverage must fulfil stringent requirements:

- Health and safety are priorities.
- Consumer protection is crucial.
- Standards of cleanliness and hygiene are important.

Anyway they must perform the same technical functions as any other lubricant:

- provide protection against wear, friction, corrosion and oxidation
- dissipate heat and transfer power
- be compatible with rubber and other sealing materials

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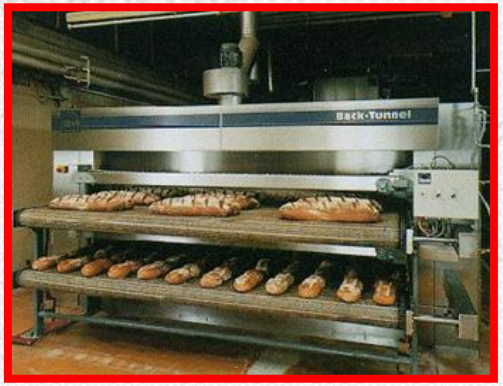
In addition, different applications within the food and drugs business demand that lubricants

- resist degradation from food products
- be tasteless and odorless
- withstand growth of microorganisms such as bacteria, yeast and fungi
- resist chemicals and water/steam
- must exhibit a physiologically inert behavior toward plastics and elastomers
- comply with international food/health and safety regulations



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APPROVALS

- NSF H1 lubricants - Lubricants that could have incidental food contact. These may be used on food-processing equipment as a protective antirust film, as a release agent on gaskets or seals of tank closures, and as a lubricant for machine parts and equipment in locations where the lubricated part is potentially exposed to food. The amount used should be the smallest needed to accomplish the desired technical effect on the equipment.

- NSF H2 lubricants are food-grade lubricants used on equipment and machine parts in locations where there is no possibility of contact.

food contact lubricants

- The Food and Drug Administration (FDA or USFDA) is an agency of the United States Department of Health and Human Services, one of the United States federal executive departments.

  The FDA is responsible for protecting and promoting public health through the regulation and supervision of food safety, tobacco products, dietary supplements, prescription and over-the-counter pharmaceutical drugs (medications), vaccines, biopharmaceuticals, blood transfusions, medical devices, electromagnetic radiation emitting devices (ERED), cosmetics and veterinary products.

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MotulTech offers a full range of high-performance NSF H1-lubricants for all branches of the food processing and packaging industries, e.g. bakery, beverage, dairy, meat and others.

They are suitable for all components and machinery, such as bearings, chains, gears, compressors, valves and fittings – in mixers, filling lines, wrapping machines and many more.

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HYDRAULIC OILS

Product	Base Oil	Viscosity @ 40°C (cSt)	Viscosity @ 100°C (cSt)	VI	Pour Point °C	Flashpoint °C	Applications	Advantages
HYDRAULIC FG 46 **HYDRAULIC FG 100** High Performance hydraulic oils formulated from white oil	medicinal white oil	46 100	9 15	180 157	-9 -9	> 185 > 190	Suitable for the lubrication of hydraulic systems, plain and anti-friction bearings, light duty gearboxes and circulation systems in the food and beverage industry. Made from elements that are part of the Food and Drug Administration List FDA - 21 CFR 178.3570 NSF H1 certified - Certification numbers 139812, 141163	• Oxidation stability • EP and anti-wear performance • Excellent corrosion protection • Excellent anti-foam properties • Excellent water demulsibility
HYDRAULIC FG-F 32 Synthetic lubricant for the food-processing industry.	Synthetic	32	6	130	-50	240	Especially appropriate for the lubrication of (plain) bearings, conveyor chains, hydraulic circuits particularly at low temperatures. HYDRAULIC FG-F 32 is the lubricant of choice in cold industries. NSF H1 certified - Certification number 147869	• Excellent oxidation and evaporation stability at high temperatures • Reinforced anti-wear and anti-corrosion performance • Low pourpoint
HYDRAULIC FG-V 46 High Performance hydraulic oils formulated from synthetic oil	Synthetic	46	8.5	130	-45	250	Suitable for the lubrication of hydraulic systems, plain and anti-friction bearings, light duty gearboxes and circulation systems in the food and beverage industry. Made from elements that are part of the Food and Drug Administration List FDA - 21 CFR 178.3570. NSF H1 certified - Certification number 139811	• Oxidation stability • EP and anti-wear performance • Excellent corrosion protection • Excellent anti-foam properties • Excellent water demulsibility • High viscosity index • Low pour point

FOOD CONTACT LUBRICANTS

GEAR, COMPRESSOR AND CHAIN OILS

Product	Base Oil	Viscosity @ 40°C (cSt)	Viscosity @ 100°C (cSt)	VI	Pour Point °C	Flashpoint °C	Applications	Advantages
GEAR FG 150 **GEAR FG 220** **GEAR FG 320** **GEAR FG 460** **GEAR FG 680** NSF H1 Reduction gear oils	Semi-synthetic	150 220 320 460 680	20 24 40 55 65	154 136 178 187 167	-10 -10 -15 -15 -15	> 205 > 205 > 210 > 220 > 220	Suitable for the lubrication of plain bearings and loaded enclosed gears in the food and beverage industrry. Made from elements that are part of the Food and Drug Administration List FDA - 21 CFR 178.3570. NSF H1 certified - Certification numbers 139908, 139807, 139806, 139805, 139804	• Oxidation stability • EP and anti-wear performance • Excellent corrosion protection • High viscosity index • Excellent anti-foam properties • Low pour point
COMPRESSOR FG 46 **COMPRESSOR FG 68** High Performance compressor oil	Synthetic	46 68	7.6 10	130 130	-30 -30	> 240 > 240	Suitable for the lubrication of CO_2, air and inert gas compressors in the food and beverage industrry. Made from elements that are part of the Food and Drug Administration List FDA - 21 CFR 178.3570 NSF H1 certified - Certification numbers 139810, 139809	• Low volatility • High EP and anti-wear performance • Excellent corrosion protection • Excellent demulsibility • Low residue tendency • Excellent anti-foam properties • Excellent deaeration properties
CHAIN FG 320 High performance fully synthetic chain oils	Synthetic	320	34.1	150	-45	> 240	Suitable for the lubrication of drive and transport chains in the food industry and equipment manufacturing food packaging industry. CHAIN FG are made from elements that appears in the Food an Drug Administration list FDA – 21 CFR 178.3570. Temperature range: -40 to 230°C (FG 150) -40 to 250°C (FG 320) NSF H1 certified - Certification number 147870	• High resistance to water • Excellent oxydation stability • High ant-iwear performances • Excellent corrosion protection • Very good adherence • No coking deposits

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GREASES

Product	Base Oil	Base oil viscosity at 40 °C	Thickener	NLGI Grade	Temperature range °C	Drop Point °C	4-ball weld load kg	Colour	Applications	Advantages
CIMLUBE PAK 322 Adherent long-life grease	Synthetic	320	Aluminum Complex	2/3	-40 to 180 and peaks of 200 °C	> 250		white	Suitable for all ball and roller bearings, smooth bearings, couplings, chains, open mesh gears, conveyors, guides, or valves in the presence of water, under heavy loads and at extreme temperatures. Suitable for all applications in the food processing and pharmaceutical industries. Not compatible with greases made from other bases. NSF H1 certified - Certification number 146840.	• Strong affinities with metals • White solid lubricants for good lubricating properties • High level of resistance to loads • Excellent thermal stability • Good resistance to water, diluted acids and washing products
TECH GREASE FG 2 Premium multi purpose grease	Mineral white oil	80	Inorganic Bentonite	2	-20 to 180	none		crystal	Suitable for the lubrication of bearings, chains, joints, linkages and slides in the food and beverage industry. NSF H1 certified - Certification number 139436	• Excellent water resistance and corrosion protection • Excellent shear stability and anti wear performance • Superior adherence