

# Lubeneotes:

Design Engineer's Guide to Selecting a Lubricant

## Synthetic Food-Grade Lubricants



While many mineral-oil-based products meet the NSF International's food-grade requirements, they often do not measure up to the more demanding temperature and load requirements of modern food, beverage, and pharmaceutical processing equipment. Compared to mineral-oil lubricants, synthetics tolerate both lower and higher temperatures, offer improved antiwear properties, extend lubrication intervals, and lengthen the service life of moving parts. Like mineral oils, synthetic food-grade lubricants are nontoxic, odorless, colorless, and tasteless.

Nye's synthetic food-grade lubricants have been approved and registered by the National Sanitation Foundation (NSF) for use in and around food processing areas. They meet the Nonfood Compound H-1 guidelines for incidental food contact. All raw materials in these lubricants conform to Food and Drug Administration (FDA) CFR Title 21.

NSF has taken over the registration program formerly administered by the United States Department of Agriculture (USDA), which was discontinued in 1998. The NSF program provides a proven process for determining product acceptability and complements NSF food processing equipment certification and food safety evaluations.

In addition to products listed on the back of this sheet, Nye can work directly with you to formulate new synthetic lubricants for your food processing and handling equipment, ensuring the new formulations use FDA recognized raw materials. We can also register new formulations with NSF.

All Nye's oils and greases can be packaged in a variety of containers: bottles, jars, pails, drums, syringes and cartridges. Private labeling is also available.

For technical data, evaluation samples, questions about any synthetic food-grade lubricant product, or to discuss a synthetic food-grade lubricant custom-designed for your application – call us at +1.508.996.6721 or visit our website at [www.nyelubricants.com](http://www.nyelubricants.com)

**On the back of this page is a partial list of the most commonly used Nye synthetic lubricants for food-grade applications.**

Contact Nye at +1.508.996.6721  
or [contact@nyelubricants.com](mailto:contact@nyelubricants.com)

Innovative Solutions since 1844

Multi-Purpose Oils	NSF Number	Chemistry	Temp Range (°C)	Description	NSF-H1	NSF
<a href="#">NyOil®</a>	128786	Clear Mineral Oil	-20 to 100	Light viscosity, white mineral oil		
<a href="#">Synthetic Oil 276L</a>	141058	Synthetic Hydrocarbon	-20 to 120	Viscous damping fluid, minimal viscosity change with temperature		
<a href="#">Synthetic Oil 272</a>	128787	Synthetic Hydrocarbon	-35 to 120	ISO Grade 150		
<a href="#">DHL 400</a>	133067	Synthetic Hydrocarbon	-40 to 150	Light viscosity oil designed for dental handpieces		
<a href="#">DHL 600</a>	133066	Synthetic Hydrocarbon	-40 to 150	Slightly heavier viscosity than DHL 400, designed for dental handpieces		
<a href="#">Synthetic Oil 271</a>	128788	Synthetic Hydrocarbon	-50 to 120	ISO Grade 68		
<a href="#">Synthetic Oil 269</a>	128789	Synthetic Hydrocarbon	-54 to 120	ISO Grade 32		
<a href="#">UniFlor™ 8320</a>	133070	PFPE	-20 to 250	ISO Grade 680 - chemically inert		
<a href="#">UniFlor™ 8620</a>	133071	PFPE	-20 to 250	ISO Grade 460 - chemically inert		
<a href="#">UniFlor™ 8920</a>	142527	PFPE	-65 to 250	ISO Grade 150 - chemically inert		
<a href="#">UniFlor™ 8930</a>	In-Process	PFPE	-70 to 250	ISO Grade 320 - chemically inert		

Multi-Purpose Greases	NSF Number	Chemistry	Temp Range (°C)	Description	NSF-H1	NSF
<a href="#">PG-44A-FG</a>	140846	Polybutene & Silica	20 to 120	Extreme heavy viscosity grease for mechanical damping		
<a href="#">NyGel® 670</a>	128785	Synthetic Hydrocarbon & Silica	-35 to 120	Medium viscosity grease for mechanical devices		
<a href="#">NyGel® 670F</a>	133068	Synthetic Hydrocarbon & Silica	-35 to 120	Medium viscosity grease for mechanical devices. PTFE added for better low temperature performance		
<a href="#">Fluorocarbon Gel 807</a>	114275	Synthetic Hydrocarbon & PTFE	-40 to 125	Medium viscosity grease, good water resistance		
<a href="#">Fluorocarbon Gel 800</a>	142532	Ester and PTFE	-35 to 150	Medium viscosity grease, low friction, excellent wear resistance. NLGI grade 2		
<a href="#">Fluorocarbon Gel 800GR-1</a>	142533	Ester and PTFE	-35 to 150	Medium viscosity grease, low friction, excellent wear resistance. NLGI grade 1		
<a href="#">Fluorocarbon Gel 800GR-3</a>	142534	Ester and PTFE	-30 to 150	Medium viscosity grease, low friction, excellent wear resistance. NLGI grade 3		
<a href="#">Fluorocarbon Gel 835C-FG</a>	136804	Silicone and PTFE	0 to 200	Very high viscosity, damping grease		
<a href="#">Fluorocarbon Gel 880FG</a>	133065	Silicone and PTFE	-40 to 200	High viscosity, damping grease, good wear performance		
<a href="#">Fluorocarbon Gel 885FG</a>	133064	Silicone and PTFE	-40 to 200	Medium viscosity grease, low friction		
<a href="#">Fluorocarbon Gel 836A-FG</a>	142482	Silicone and PTFE	-40 to 200	High viscosity, damping grease		
<a href="#">UniFlor™ 8622</a>	136042	PFPE and PTFE	-15 to 250	High viscosity grease with excellent high temp performance, chemically inert		
<a href="#">UniFlor™ 8512-FG</a>	136803	PFPE and PTFE	-50 to 225	Wide temperature medium viscosity grease, chemically inert		
<a href="#">UniFlor™ 8512S-FG</a>	136802	PFPE and PTFE	-50 to 225	Softer version of 8512-FG, for lower torque requirements, chemically inert		
<a href="#">UniFlor™ 8921A</a>	142529	PFPE and PTFE	-65 to 250	Medium viscosity, low torque, wide temperature capability, chemically inert		
<a href="#">UniFlor™ 8921AF</a>	142530	PFPE and PTFE	-65 to 250	Medium viscosity, low torque, wide temperature capability, chemically inert and ultrafiltered		
<a href="#">UniFlor™ 8931</a>	142484	PFPE and PTFE	-70 to 250	Medium viscosity grease, low torque, wide temperature capability, chemically inert		

Specialty Lubricants	NSF Number	Chemistry	Temp Range (°C)	Description	NSF-H1	NSF
<a href="#">NyeClean™ 5060</a>	142528	PFPE	-65 to 250	ISO grade 150, vacuum grade oil		
<a href="#">NyeClean™ 5067</a>	142531	PFPE and PTFE	-65 to 250	Vacuum grade grease, meets E-595 requirements		

H2 Lubricants	NSF Number	Chemistry	Temp Range (°C)	Description	NSF-H2	NSF
<a href="#">Fluorocarbon Gel 880FG-UV</a>	142185	Silicone and PTFE	-40 to 200	High viscosity, damping grease. Good wear performance. UV tracer dye		

Nye Lubricants, Inc. 12 Howland Road Fairhaven, MA 02719 USA Ph: +1.508.996.6721 Fx: +1.508.997.5285 www.nyelubricants.com

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