

## 271 SYNTHETIC FOOD GRADE GREASE H1

Synthetic Food Grade Grease H1 is a fully synthetic extreme pressure, anti-wear, high temperature grease that is specially formulated for use in the lubrication of food, feed and pharmaceutical processing and packaging equipment, especially those pieces of equipment that are subjected to high loads and high moisture conditions.

Synthetic Food Grade Grease H1 meets the requirements for a USDA H1 quality lubricant and the requirements of the United States Code of Federal Regulations 21CFR 178.3570, 178.3620(b), and 573.680 of the United States Food and Drug Administration's Regulations and is registered with and meets NSF International's guidelines for use as a lubricant with incidental contact (H1) in and around food processing areas.

Synthetic Food Grade Grease H1 can be used in the lubrication of ball, roller, journal and sliding bearing applications and chain applications, where there is a chance of incidental contact with food, foodstuffs, drinking water, potable water, or ground water may occur. Typically these applications can be found in the following industries:

Meat and Poultry Processing Plants	Egg Processing Plants
Fish and Seafood Processing Plants	Breweries and Wineries
Soft Drink and Bottling Plants	Vegetable and Fruit Processors
Cheese and Cheese Product Producers	Bakeries
Snack Food Manufacturers	Pasta Manufacturers
Pet Food and Animal Feed Producers	Oil Mills and Seed Cake Processors
Pharmaceutical and Drug Manufacturers	Cosmetic Manufacturers
Food and Beverage Container Manufacturers	Paper and Paperboard Manufacturers
Water Well Drillers	Drinking and Potable Water Treatment Plants

Synthetic Food Grade Grease H1 is compounded from the highest quality, severely hydro-finished technical white Polyalphaolefin (PAO) synthetic base fluids available. Blended into the hydro-finished technical white PAO synthetic base fluids are a bentone base thickener, adhesive/cohesive additive and other selected performance additives.

The formulation provides Synthetic Food Grade Grease H1 with the following outstanding performance features:

- Excellent resistance to water washout and water spray-off
- Excellent cold temperature starting and pumpability
- Excellent shear and mechanical stability
- Superior anti-wear and extreme pressure load carrying properties
- Excellent rust and oxidation inhibiting characteristics
- Excellent resistance to oxidation and thermal degradation
- No dropping point
- Excellent resistance to acidic compounds
- Excellent resistance to wash out, pound out, splatter and squeeze out
- Excellent ability to retain its consistency and resist separation of its base oils.

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Further blended into Synthetic Food Grade Grease H1 is a unique blend of USDA and FDA acceptable preservatives. These food grade preservatives provide the product with an effective way to control, inhibit and retard the growth of bacteria, yeast and molds that may come into contact with Synthetic Food Grade Grease H1 during use. These preservatives are not an antiseptic or sterilizing agent but does effectively prevent bacterial growth and control microbiological proliferation if the Synthetic Food Grade Grease H1 becomes contaminated during use.

Synthetic Food Grade Grease H1 has an operating temperature range of -40° to 260°C (-40 to 500°F).

## TYPICAL PROPERTIES

<b>NLGI Grade</b>	<b>1</b>	<b>2</b>
Type of Thickener	Bentone	Bentone
Worked Penetration 60 Strokes (ASTM D-217)	310-340	265-295
Roll Stability (ASTM D-1831) % Change in consistency	9.0	9.0
Four Ball EP Test (ASTM D-2596) Weld Point, kg	250	250
Load Wear Index, kg	35	33.7
Four Ball Wear Test (ASTM D-2266) 40kg/1200rpm/1 hr./167°F Scar Diameter, mm	0.6	0.6
Timken EP Test (ASTM D-2509) OK Load lbs.	50	50
Falex EP Continuous Load (ASTM D-3233 Procedure A) Failure Load, lbs	1300	1360
Oxidation Stability (ASTM D-942) PSI Loss @ 100 hours	0.5	0.5
PSI Loss @ 300 hours	1.5	1.5
Rust Inhibition Test (ASTM D-1743)	1,1,1	1,1,1
Water Washout Characteristics (ASTM D-1264)	3.5%	3.3%
Water Spray Off Test (ASTM D-4049) % Loss	15%	15%
Evaporation Loss (ASTM D-2595) @ 121°C, 22 hours	1%	0.5%
Copper Strip Corrosion Test (ASTM D-4048)	1a	1a
Low Temperature Torque@ -54°C (ASTM D-1478) Starting Torque g. cm.	5,100	5,605
Running Torque g. cm	1,950	2,330
NSF Registration Numbers	137803	137804
<b><u>BASE OIL PROPERTIES</u></b>		
Viscosity 40°C cSt (ASTM D-445)	76.34	76.34
Viscosity 100°C cSt (ASTM D-445)	10.17	10.17
Viscosity Index (ASTM D-2270)	116	116
Flash Point °F/°C (ASTM D-92)	487°/253°	487°/253°
Pour Point °F/°C (ASTM D-97)	-35°/-37°	-35°/-37°