



TECHNICAL DATA

Molysyn Manufacturing Co.

M-470 USDA H1 FOOD GRADE SYNTHETIC OIL GEAR OIL (32-150)

M-470 H-1 is a fully synthetic anti-wear, food grade oil 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.

M-470 H-1 meets the requirements for USDA H-1 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 lubricant with incidental contact (H1) in and around food processing areas.

M-470 H-1 can be used in the lubrication of all types of compressor applications including some types of refrigeration compressors, hydraulic, vacuum pump, pump, air line, chain, bearing, general oiling and heat transfer 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	
Drinking and Potable Water Treatment Plants	Water Well Drillers

M-470 H-1 is blended from the highest quality, highly refined, severely hydro-finished and purified non-toxic technical white polyalphaolefin (PAO) synthetic



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Minutes	20	20	20	20	20	20
Oxidation Stability Test (ASTM D-943) Hours to TAN of 2	3,500	3,500	3,500	3,500	3,500	3500
Sludge Tendencies (ASTM D-4310) Total Sludge, mg	36	36	36	36	36	36
Four Ball Wear Test (ASTM D-4172) (1 hour/40kg/130°F/54°C) Wear Scar Diameter, mm	0.45	0.45	0.45	0.45	0.45	0.45
Four Ball EP Test (ASTM D-2783) Weld Point, kgs.	250	250	250	250	315	325
Conradson Carbon Residue (ASTM D-189)	0.03	0.03	0.03	0.03	0.03	0.03
Total Acid Number (ASTM D-664)	0.5	0.5	0.5	0.5	0.5	0.5
Vickers Pump Wear Test (ASTM D-2882) 100 hours @ 1000psi @ 150°F/66°C) Weight Loss, mg Ring	10	10	10	10	-	
Vane	1.5	1.5	1.5	1.5	-	-
Total Weight Loss	11.5	11.5	11.5	11.5	-	11.5
% Evaporation Loss (ASTM D-972) 6.5 hours @ 400°F/204°C	10	10	10	10	10	10
% Evaporation Loss (ASTM D-972) 22 hours @ 225°F/107°C	2	2	2	2	3	3