SINCE 1839 Schaeffer MANUFACTURING COMPANY

ISO 9002 CERTIFIED

TECHNICAL DATA

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#200S SILVER STREAKÒSPECIAL MULTI-LUBE

Silver Streak®Special Multi-Lube is a semi-synthetic, heavy duty, extreme pressure non-solvent containing lubricant that is recommended for the lubrication of antifriction bearings, babbitt bearings, pins and bushings, enclosed industrial type gear cases, open gearing, dipper sticks, circle gearing, spindle and gear type coupling and other applications that are common to the mining, railroad, steel mill and power plant industries.

Silver Streak®Special Multi-Lube is compounded from a unique blend of select solvent refined severely hydrofinished high viscosity index paraffin base oils and polyalphaolefin synthetic base oils. These base oils were selected for their exceptional physical and chemical stability, and their exceptional serviceability over a wide range of temperatures. These base fluids are further compounded to provide the Silver Streak®Special Multi-Lube with superior adhesive film-forming characteristics. This adhesive film-forming characteristic allows Silver Streak®Special Multi-Lube to resist “squeeze out” and “sling out” along with allowing the product to cling tenaciously, even to gears that are in a vertical orientation. Also this compounding allows Silver Streak®Special Multi-Lube to have a superior resistance to oil separation due to centrifugal forces that are common in many coupling applications. **Further this special compounding allows Silver StreakÒSpecial Multi-Lube to remain soft and pliable over a long period of time without the use of any kind of solvents, especially non-flammable chlorinated solvents such as 1,1,1 trichloroethane that are being considered undesirable for use due to environmental consideration.**

To fortify the adhesive film strength of Silver Streak®Special Multi-Lube, a combination of molybdenum disulfide and various solid lubricants are compounded into Silver Streak®Special Multi-Lube. The molybdenum disulfide and various lubricants contribute to the structure of the film, and also improve the anti-wear, extreme pressure characteristics and load-carrying capabilities of Silver Streak®Special Multi-Lube beyond those of conventional lubricants. The load carrying ability of Silver Streak®Special Multi-Lube is in excess of 500,000 pounds per square inch.

This combination of molybdenum disulfide and various solid lubricants also forms a protective layer between the mating surfaces. This protective layer provides a cushioning effect between the contacting asperities that minimizes pitting of the mating surfaces.

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Silver Streak®Special Multi-Lube offers the following advantages.

1. Forms an almost indestructible adhesive film with a “cushioning” effect even under extreme pressure and at very low speeds.
2. Resists film destruction by contaminating oils or greases “migrating” from nearby mechanisms.
3. Resistant to water washout.
4. Resistant to the adhering of dirt or dust.
5. Reduction in contact temperatures.
6. Minimizes cold metal welding at the contacting asperities.
7. Minimizes the vibration of “stick slip”.
8. Exhibits excellent reduced wear characteristics.
9. Maximizes a reduction in lubricant consumption rate.

Only Silver StreakÒSpecial Multi-Lube Ultra Light grade can be used in industrial type gear cases to replace an SAE 250 weight or ISO viscosity grade lubricant

Silver Streak®Special Multi-Lube can be applied either manually or by heavy duty automatic lube systems. Silver Streak®Special Multi-Lube Heavy and Extra Heavy can be pumped down to 50°F/10°C*. Silver Streak®Special Multi-Lube Medium can be pumped down to 45°F/7°C*. Silver Streak®Special Multi-Lube Light can be pumped to 32°F/0°C*. Silver Streak®Special Multi-Lube Extra Light can be pumped to 14°F-10°C*. Silver Streak®Special Multi-Lube Extreme Light can be pumped to -20° to -25°F/-29° to -32°C*. Silver Streak®Special Multi-Lube Ultra Light can be pumped to -40°F/-40°C*. When using Silver Streak®Special Multi-Lube Ultra Light in summer months or in warm weather conditions, consideration should be given to using a heavier grade of Silver Streak®Special Multi-Lube.

***May vary with types of equipment and dispensing system configuration used.**

Typical Properties

	Ultra	Extreme	Extra	Light	Medium	Heavy
Specific Gravity	1.003	1.070	1.076	1.08	1.09	1.09
60°F/15.6°C						
ISO Grade (calculated)	1500	----	----	----	----	----
Brookfield Viscosity						
Of Fully Formulated Product (ASTM D-2669)						
@ 40°C, cP	1675[1]	2,250[1]	6,125[1]	7,300[2]	7,060[1]	36,750[6]
@100°C, cP	550[3]	1,325[4]	4,000[4]	6,100[5]	1,375[1]	3,825[1]
Viscosity						
Of Fully Formulated Product (calculated)						
@40°C, Cst	1,711.85	2,373.52	6,496.17	7,771.58	6,555.2	33,248.89
@40°C, SUS	7,931.9	10,997.7	30,100.1	36,009.7	30,373.6	154,059.1
@100°C, SUS	2,605.2	6,291.6	18,999.2	29,241.2	6,342.6	13,145.2
Four Ball E.P. Test (ASTM D-2596):						
Weld Load, kg	500	620	800	800	800	800
Load Wear Index, kg	75	85	110	120	131	166.1
Worked Penetration @ 77°F/25°C						
(ASTM D-217)	----	----	----	----	415°-420°	350-390
NLGI Grade	----	----	----	----	00	0
Four Ball E.P. Test (ASTM D-2266):						
Scar Diameter, mm	.54	.57	.67	.67	.68	.68
Falex Continuous Load (ASTM D-3233):						
Failure Load, lbs/kg	+4500/+2045	+4500/+2045	+4500/+2045	+4500/+2045	+4500/+2045	+4500/+2045
FZG DIN 51-354	+13th Stage	+13th Stage	----	----	----	----
Rust Inhibition Test						
(ASTM D-1734)	1,1,1	1,1,1	1,1,1	1,1,1	1,1,1	1,1,1
Copper Strip Corrosion						
(ASTM D-4048)	1b	1b	1b	1b	1b	1b
Deleterious Particles ASTM D-1404						
#Scratches	20	15	20	10	14	14
Rating	2	2	2	1	2	2

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	Ultra	Extreme	Extra	Light	Medium	Heavy
Lincoln Ventmeter:						
Psi 72°F	----	----	----	----	60	80
Psi 30°F	0	0	0	0	180	290
Psi 0°F	150	125	120	825	----	----
Psi -10°F	----	----	225	1600	----	----
Psi -20°F	400	400	640	----	----	----
Flash Point °F/°C (Base Oil)	420°-425°/	420°-435°/	500°-510°/	515°-525°/	510°-520°/	570°-580°/
	215.56°-218.33	215.56-221.11°	260°-265.56°	268.33-273.89	265.56-271.11°	298.89°-304.44°

[1]Brookfield Series #4 spindle at 60 RPM used to measure apparent viscosity.
[2]Brookfield Series #4 spindle at 30 RPM used to measure apparent viscosity.
[3]Brookfield Series #2 spindle at 30 RPM used to measure apparent viscosity.
[4]Brookfield Series #2 spindle at 12 RPM used to measure apparent viscosity.
[5]Brookfield Series #2 spindle at 3 RPM used to measure apparent viscosity.
[6]Brookfield Series #4 spindle at 12 RPM used to measure apparent viscosity.
[7]Brookfield Series #4 spindle at 3 RPM used to measure apparent viscosity.

Packaging: #200S Silver Streak®Special Multi-Lube is available in (net weights) 450 lb. drums, 130 lb. kegs, 40 lb. pails and cartridges (25 per case).