

Product	Type
LUBRIZOL® 9990A	Farm Tractor Additive
	Premium UTTO Additive Technology for

agricultural, construction and industrial equipment.

Application

Recommended for use at:

6 % by weight

4.95 % by volume

in suitable base stocks along with appropriate viscosity modifier and pour point depressant to prepare fluids providing superior gear performance, chatter suppression, hydraulic pump and low temperature performance. LUBRIZOL® 9990A contains antifoam. LUBRIZOL® 9990A is suitable for use in tractors where the following specifications are required:-

- AGCO POWERFLUID 821XL
- Allison C-4

• API GL-4

- Caterpillar TO-2
- CASE MS 1210
- Case New Holland CNH MAT3540
- Case New Holland CNH MAT3525
 Case New Holland CNH MAT3509
 Case New Holland CNH MAT3505

- FNHA-2-C-200.00
- FNHA-2-C-201.00

- Ford ESN-M2C86-B
- Ford ESN-M2C86-C

Kubota UDT Fluid

• Ford ESN-M2C134-D

• John Deere JDM J20D

• HCE-102

• HCE-102W

John Deere JDM J20C

- Massey Ferguson CMS M1143
- Massey Ferguson CMS M1141
- Massey Ferguson CMS M1145 • Massey Ferguson CMS M1135

- Valtra G2-08
- VCE WB 101

• VCE WB 102

- ZF TE-ML 03E
- ZF TE-ML 05F
- ZF TE-ML 06E

• ZF TE-ML 06F

- ZF TE-ML 06K
- ZF TE-ML 17E

• ZF TE-ML 21F

Valtra G2-08, ZF TE-ML 06E and ZF TE-ML 06F are all formulation specific approvals. VCE WB102 is formulation specific requiring 7% wt. LUBRIZOL® 9990A and testing and approval by Volvo Construction Equipment

Physical Characteristics

	Minimum	Target	Maximum
FLASH POINT, C, PMCC		115	
LBS PER U.S. GAL @ 15.6 C		8.79	
LBS PER IMP GAL @ 15.6 C		10.56	
POUR POINT, C		-30	
SPECIFIC GRAVITY @ 15.6 C	1.035	1.055	1.075
VISCOSITY @ 100 C, CST		20.0	
VISCOSITY @ 40 C, CST		250	

Chemical Characteristics

	Minimum % Weight	Typical	Maximum % Weight
BORON	0.140	0.170	0.200
CALCIUM	5.40	6.00	6.60
NITROGEN		0.090	
PHOSPHORUS	1.80	2.00	2.20
SULFATED ASH		23.50	
SULFUR		4.8	
ZINC	2.24	2.49	2.74

LUBRIZOL® 9990A Unloading, storage and blending instructions

General handling instructions - In general, The Lubrizol Corporation recommends, as a minimum, the use of neoprene or nitrile rubber gloves and safety glasses or chemical splash goggles. The Material Safety Data Sheet should be consulted for specific information and for information on health and safety when handling this product

Fire and explosion hazard data

	Flash Point (method)	Classification				
	115°C PMCC	N/A				
Temperature recommendations						
Unloading	Pumping Temperature	25°C	77 ⁰ F			
	Maximum temperature	70°C	158 ^o F			
Storage						
Maximum temperature for long-term storage		45°C	113 ^o F			
Blending						
Maximum base oil temperature fo	r mechanical or in-line mixing	70°C	158 ^o F			
Equipment recommendations			_			
Type of Pump	Positive Displacement					
Type of transfer line	Ball Launched, Insulated, Steam Traced Using 107°C/225°F Steam Max.					
Transfer line size	2-3inch/5-8 cm.					
Heat source						
Туре	Steam 107°C/225°F Max.					
Storage tank	Suction Heater Recommended					
Viscosity data	cSt	SUS				
at 25°C,77°F	690	3193				
at 40°C, 104°F	250	1158				
at 100°C, 212°F	20	98				
Notes						
Pour Point	-30°C,-22°F					

Additional Recommendations

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^{*} Holding the material in excess of this temperature may cause chemical degradation. Use steam for heating and tracing only when the material is in motion to avoid localized overheating. Cold Temperature Storage - If product has been stored below its pour point temperature it should be heated to 21°C/70°F before using.