



CERTIFICATE OF ANALYSIS

CLIENT

S&W Automotive Technologies
 73 Price Quarters Rd # 273
 McDonough, GA 30253

PRODUCT: Z-ALT Infused Lubricant

MARKS: NONE

DATE RECEIVED: 02/11/2008

LAB NO: HH0410-1202-P

SUBMITTED BY: Manufacture



METHOD	TEST PROCEDURE	RESULT	SPECIFICATIONS	
			MIN.	MAX.
D-130	Copper Corrosion	1 b	1 a	4 d
D-92	Flash Point, °C/F	370/698	XXX	XXX
D-892	Foaming Tendency, Sequence I	XXX	XXX	XXX
	Foam Volume, mL, @ the end of 5-min blowing period		20	Pass
	Foaming Volume, mL, @ the end of 10-min settling period		0	Pass
D-4172	Four Ball-Wear, mm (w/mineral oil)	0.64	XXX	XXX
D-5800	Noack Volatility, wt. %	6.2	XXX	XXX
D-97	Pour Point, °C	- 31	XXX	XXX
D-2272	Rotating Bomb Oxidation, minutes	15	1	60
D-665	Rust Prevention (Pass or Fail)	Pass	Pass	Pass
D-445	Viscosity, cSt @ 100 °C	8.07	XXX	XXX
Ethyl	Lead Corrosion, 2% solution, ppm	13	10	30
	Copper Corrosion, 10% solution, ppm	< 1	1	20
D-4929-07	Chlorine % In Hydrocarbon Lubricant	0.00%	XXX	XXX
D-2896	Base Number of Petroleum "TBN"	6.3	XXX	XXX
SAE-J2643	Effects on Vulcanized Rubbers "Volume Change"	1.6%	1%	5%

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METHOD	TEST	RESULT
D-3233	Falex Pin & V-Block 4,500 lb Gauge Pre-Heat to 120 °F	Unable to attain load load 4,500 lb. load
	Load, lbs	Starting Torque Final Torque Comments
	300 lbs @ 3 min	5 lb - in 7 lb - in
	500 lbs @ 1 min	10 lb - in 10 lb - in
	750 lbs @ 1 min	13 lb - in 13 lb - in
	1,000 lbs @ 1 min	16 lb - in 16 lb - in
	1,250 lbs @ 1 min	20 lb - in 20 lb - in
	1,500 lbs @ 1 min	22 lb - in 23 lb - in
	1,750 lbs @ 1 min	28 lb - in 29 lb - in
	2,000 lbs @ 1 min	30 lb - in 31 lb - in
	2,250 lbs @ 1 min	32 lb - in 33 lb - in
	2,500 lbs @ 1 min	34 lb - in 35 lb - in
	2,750 lbs @ 1 min	36 lb - in 36 lb - in very slight loss of load
	3,000 lbs @ 1 min	38 lb - in 37 lb - in very slight loss of load
	3,250 lbs @ 1 min	42 lb - in 41 lb - in
	3,500 lbs @ 1 min	46 lb - in 45 lb - in
	3,750 lbs @ 1 min	49 lb - in 52 lb - in slight loss of load
	4,000 lbs @ 1 min	54 lb - in 56 lb - in slight loss of load
	4,250 lbs @ 1 min	57 lb - in 57 lb - in loss of load

Comments:

"This product is a great metal conditioning product. It will allow for less ferrous wear and higher load rates to be added to lubricating oil in a stand-alone option. A very user-friendly product.

Amos Mwangi

Date issued:
02/11/2008

CHEMIST