Hy-Green

PRODUCT DATA SHEET HY-GREEN SSE 68 FC EAL POWER CHAIN FLUID

Hy-Green SSE 68 FC EAL is a fully synthetic saturated environmentally acceptable ester powered chain fluid, meeting the requirements of DE-UZ 178 Ecolabel performance testing standard.

Hy-Green SSE 68 FC EAL is therefore a very high-performing, environmentally acceptable powered chain fluid, suitable for working close to water due to its ultra-low aquatic toxicity and also on regulated land because it is classified as "readily biodegradable".

Hy-Green SSE 68 FC EAL is particularly suited to chains on tree harvesters, sawmills and chainsaws. Suitable for all climates, Hy-Green SSE 68 FC EAL is a particular problem-solver in very cold conditions where vegetable ester based products congeal and mineral based products should not be used.

Hy-Green SSE 68 FC EAL incorporates very carefully selected additives to impart shock-loading/ extreme pressure properties as well as corrosion protection for adverse weather conditions. The polar nature of the ester means Hy-Green SSE 68 FC EAL makes it highly adherent to metal surfaces and its very high film strength reduces wear and chain failures by keeping metal surfaces apart in stop-start conditions and provides excellent penetration between chain link pins and side plates.

Physical Properties

Parameter	Test Method	Units	Value
Kinematic Viscosity at 40°C	ASTM D445	mm^2/sec	68
Kinematic Viscosity at 100°C	ASTM D445	mm^2/sec	12.3
Viscosity Index	ASTM 2270	-	180
Density	ASTM 4052	kg/m^3	978
Pour Point	ASTM D97	°C	<-45
Flash Point, open cup	ASTM D92	°C	300
Iodine Value	DGF C-V11B	$g\ I_2/100g$	≤ 1
Water Content	ASTM D 4298	%	≤ 0.01

Performance results

Test	Test Method	Measure	Value
Biodegradability	OECD 301D	% 28 days	>60 ("Readily biodegradable")
Phase separation	KWF test A3	No visible formation of phases, colour mixing, flakes and deposits	Pass
Chainsaw soiling	KWF test A6	No permanent stains after a 3-day period	Pass

Staining clothes	KWF test A5	No bonding of cut protection materials by lubricant splashes	Pass
Odour development	KWF test A7	Fresh lubricant and its fumes do not produce obnoxious (acrid, pungent, intolerable) smells	Pass
Steel Corrosion Procedure A (distilled water); Procedure B (synthetic sea water)	ASTM D665	Rating	Pass Pass
Laboratory Ageing test; 1000 h-storage at 80 ˚C	KWF test A2	Flow time <15 s	Pass
Laboratory test; test stand: evaluation of the lubrication characteristics of chainsaw lubricants	ISO/TS 19858:2015-08-15	Overall chain extension (mm) Wear (depth) of the guide bar(mm) Surface temperature after 180 minutes (˚C)	<2 < I .5 <85

The above are indicated, typical values which may vary slightly by production and should not be used as a product specification.

Product design standards of Hy-Green SSE 68 FC EAL

- DE-UZ 178 performances
- Cold weather (use down to -45˚C)
- EU Ecolabel
- OECD 301D “Readily Biodegradable”

Benefits of using Hy-Green SSE 68 FC EAL

- Excellent extreme pressure and shock-loading resistance
- Readily biodegradable and ultra-low toxicity to water for regulated areas and environmental care
- Highly resistant to thermal degradation, oxidation, varnish formation and chain-staining
- Extremely low pour point for all-year, cold climate operation

- Polar nature of the saturated, synthetic ester means less fluid fling-off and that less fluid is required
- Superb rust and corrosion protection for adverse climatic operating conditions
- Top-class chain performance, vastly reduced chain breakages and cutter bar wear

Hy-Green SSE 68 FC EAL is compatible with mineral and other synthetic lubricants but care is advised not to cross contaminate to enjoy the best possible performance from Hy-Green. For example, measures should be taken to ensure care with top-up fluid when necessary and flushing the system thoroughly before introducing Hy-Green, is advised.

Pack sizes: Hy-Green SSE 68 FC EAL is available in 1,000 litre IBCs, 200 litre steel barrels, and 20 litre steel pails, avoiding plastic waste in the environment.