



HOSE/09-1

## Synthetic Hydraulic Oil

# BioSafe HO 15/32/46/68 SE

BioSafe HO SE is environmentally acceptable hydraulic oils based on synthetic esters, produced from completely renewable sources – vegetable oil. The products are recommended for mobile as well as stationary hydraulic systems.

BioSafe HO SE has a very high viscosity index, high shear stability and good lubricating properties.

BioSafe HO SE is a range of products in four different ISO VG-grades. Right choice of grade is mainly depended on applications, ambient temperatures and working conditions. Generally HO 15 SE and HO 32 SE is recommended at low temperatures while HO 68 SE is recommended at high. HO 46 SE is an all-round product.

Specifications: Swedish Standard 15 54 34 BV 32, 46, 68 EAL SP-green list and ISO/FDIS 15380 HEES.

### Physical and Chemical Data (typical)

Analysis	Method	Unit	15	32	46	68
Viscosity at 40°C	ISO 3104	mm <sup>2</sup> /s	15	32	46	65
Viscosity at 100°C		mm <sup>2</sup> /s	4	7	9	12
Viscosity at -20°C		mm <sup>2</sup> /s	300	1300	1400	2300
Viscosity at -30°C		mm <sup>2</sup> /s	700	2500	3600	-
Viscosity index	ASTM D 2270		170	205	185	185
Pour Point	ISO 3016, ASTM D 97	°C	-45	-42	-42	-39
Density at 20°C	ISO 3675	kg/m <sup>3</sup>	908	904	916	920
Flash Point	ASTM D 93	°C	> 200			

### Health and Safety Data

Analysis	Method	Unit	15	32	46	68
Biodegradability	OECD 301 F	(%)	Readily biodegradable >80			
Toxicity	OECD 201-203, 401		Non toxic			
Bioaccumulation	OECD 305 D		No accumulation			
Skin and eye irritation	OECD 401-402, 404-405		Not irritant			
Biological renewability		%	>80			

Product codes		112089	112091	112093	112100
Packaging	Bulk (01)			X	
	1000-l IBC (02)		X	X	
	200-l drum (03)	X	X	X	X
	20-l pail (05)		X	X	

Storage: In sealed container, protected from rain.

A company in the AAK Group