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# Gulf Harmony Bio-Synth 32

*Biodegradable Hydraulic Fluid*

## Product Description:

**Gulf Harmony Bio-Synth 32** is a biodegradable hydraulic oil with extra high viscosity index of around 180 specially developed for forestry machinery and equipment operating in extreme climatic conditions like arctic climate areas where leakages may pollute natural habitat and is formulated with biodegradable synthetic base stocks and an advanced additive system to meet the stringent requirements of modern hydraulic systems using high pressure high output pumps. **Gulf Harmony Bio-Synth 32** meets the environmental requirements of Swedish Standard SS 15 54 34 of environmentally accepted hydraulic fluids by SP Technical Research Institute of Sweden.

**Gulf Harmony Bio-Synth 32** specially selected biodegradable materials has a renewable content of more than 90% and hence the product has WGK 1 rating according to the German WGK classification. Extremely high viscosity index assures equipment protection at cold start-up temperatures and protects system components at high operating temperatures and good thermo-oxidative stability reduces deposit formation and improves pump & valve performance. Excellent anti-wear property results in longer pump life and reduced maintenance costs. Special rust & corrosion inhibitors protect multi-metallurgy components against corrosion and **Gulf Harmony Bio-Synth 32** is compatible with multi-metals and sealing materials commonly used in hydraulic systems.

**Gulf Harmony Bio-Synth 32** is recommended in environmentally sensitive areas requiring fluids which are virtually non-toxic and readily bio-degradable and for high performance, heavy duty hydraulic and power transmission systems of forestry machinery and equipment operating in extreme climatic conditions like arctic climate areas. Also other hydraulic systems for improved performance in marine, construction, mining, agriculture, manufacturing and mobile application requiring such biodegradable hydraulic fluids.

### Meets the specifications of:

DIN ISO 15380, VDMA 24568 HEES, Bosch Rexroth RD 90221-1

<u>Properties:</u>	<u>Test Methods:</u>	<u>Typical Values:</u>
ISO Viscosity Grade	ISO 3448	32
Density @ 15°C	ASTM D4052	930 kg/m <sup>3</sup>
Kinematic Viscosity @ 40°C	ASTM D445	28.8-35.2 mm <sup>2</sup> /s (cSt)
Viscosity Index	ASTM D2270	196
Flash Point	ASTM D92	266°C
Pour Point	ASTM D97	-39°C
Rust Test	ASTM D665A/B	Pass
Copper Corrosion (3 hrs @ 100°C)	ASTM D130	1a
Foaming Characteristics: Sequence I, II & III	ASTM D892	Pass
FZG A/8.3/90: Load Stage Fail	DIN 51354-2	>11
Biodegradability	OECD 301B	>80%

Product Code: 3706	Date Issued: 02/07/2012	Date Superseded: 12/12/2011	Revision nr: 03
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