## perma BIO SYN 320 (SO69)

Previous name: perma Bio oil, high viscosity S064

## RAPIDLY BIODEGRADABLE MULTI-PURPOSE OIL

perma BIO SYN 320 (SO69) is a fully synthetic multi-purpose oil which fall under water hazard class 1, i.e. it is not hazardous to water. It has an excellent viscosity-temperature relation and a wide service temperature range. perma BIO SYN 320 (SO69) protect against corrosion and wear and it is very adhesive and resistant to ageing and oxidation. In the FZG test, DIN 51354 pt 2 (A/8.3/90) this oil has a scuffing load stage > 12 and meet the CLP requirements. In accordance with CEC-L-33-A-94, biodegradability after 21 days is > 70 %.

Advantages		Application
	MULTI-PURPOSE OIL	perma BIO SYN 320 (SO69) is used for the lubrication of open drive and conveyor chains, spindles and joints as well as for spur, bevel and worm gears and pertinent machine elements, such as couplings, plain and rolling bearings. perma BIO SYN 320 (SO69)
0	RAPIDLY BIODEGRADABLE	is used in agricultural and forestry equipment, water treatment installations, gardening equipment. perma BIO SYN 320 (SO69) is especially suitable for applications where oil leakage might contaminate the environment.
		APPLICATION INFORMATION
WGK	WATER HAZARD CLASS 1	perma BIO SYN 320 (S069) is a lubricant especially developed for perma lubrication systems. To ensure adequate metering and maintenance-free lubrication, this product is only available in perma lubrication system. Depending on temperature and
	EXCELLENT VISCOSITY-TEMPERATURE RELATION	exposure time, synthetic lubricants on an ester base may have an impact on the functional capacity of rubber-elastic sealing materials. Seals made of NBR materials can be used at permanent temperatures up to max. 80 °C. For higher temperatures we recommend to use seals made of FKM materials. Paints may be attacked by synthetic lubricants. When applying perma BIO SYN 320 (SO69) we recommend the use of two-component paints for interior coating.
<b>o</b> *,	GOOD ANTIWEAR BEHAVIOR	
		SHELF LIFE
		Shelf life is approx. 12 months if the product is stored in its unopened original container in a dry and frost-protected place.
	VERY ADHESIVE	PACKAGING
		ightarrow perma lubrication systems
		→ Bottle 1 ltr
		→ Bottle 5 ltr



## Product data

Base oil	Ester
ISO VG DIN 51519	320
Kinematic oil viscosity, DIN 51561, at 40 °C, mm²/s at 100 °C, mm²/s	320 34
Colour	Orange
Density, DIN 51757, at 20 °C, g/cm³, approx.	0.95
Viscosity index, DIN ISO 2909	> 160
Pourpoint, DIN ISO 3016, °C.	< -20
Service temperature range, °C	– 20 to 110
Elastomer compatibility towards 72 NBR 902 at 100 °C / 168 h change in volume % change in hardness (Shore A), approx.	< +5 -4



Gears



Sliding bearings





Chains

**perma-tec GmbH & Co. KG** Hammelburger Str. 21 97717 Euerdorf GERMANY

Tel.: +49 9704 609 - 0 info@perma-tec.com www.perma-tec.com