



Lubrication

High performance Biodegradable lubricant for enclosed industrial gearboxes.

APPLICATIONS

Industrial gearboxes

- **CARTER BIO** is a new generation high performance biodegradable lubricant developed for industrial gears and bearing lubrication.
- **CARTER BIO** is designed to replace mineral gear oils for gearboxes operating in environmentally sensitive areas.

SPECIFICATIONS

International standards

- **CARTER BIO** can be used when CKC/CKD (ISO 12925-1) or CLP (DIN 51517-3) mineral lubricants performance levels are requested.
- Environmentally Acceptable Lubricant (EAL) for 2013 (VGP).

SPECIFICATIONS

- ZF PROPULSION, WARTSILA, HHI thrusters, SCANA.

ADVANTAGES

- **CARTER BIO** has very good extreme pressure properties and a high scuffing load capacity ensuring good protection of gears operating under high load.
- **CARTER BIO** combines good lubrication properties and a high oxidation stability. The base oils are fulfilling the European Ecolabel criterias for Biodegradability, the Renewable carbon content and for the Ecotoxicity.
- The Biodegradability of **CARTER BIO** is over 60% (OECD 301B testing procedure).
- **CARTER BIO** provides lubrication advantages at both high and low temperatures compared to mineral oils.
 - The very high viscosity index and shear stability of **CARTER BIO** ensures a high lubricating film thickness at high temperatures.
 - The lower pour point and the low temperature viscosity will ensure a better start up in cold operating environments.
- **CARTER BIO** is ensuring a high corrosion protection , confirmed with sea water contamination.



TYPICAL CHARACTERISTICS	METHODS	UNITES	CARTER BIO					
			68	100	150	220	320	460
Density at 15°C	ISO 3675	kg/m ³	0.949	0.966	0.984	1.000	1.015	0.995
Viscosity at 40°C	ISO 3104	mm ² /s	67.71	99.01	152.4	218.5	313.5	446.5
Viscosity at 100°C	ISO 3104	mm ² /s	10.77	14.24	19.53	25.4	33.06	43.96
Viscosity index	ISO 2909	-	149	148	147	147	147	152
Flash point (open cup)	ISO 2952	°C	292	288	288	284	294	300
Pour point	ISO 3016	°C	- 42	- 42	- 42	- 39	- 36	- 33
FZG A/8,3/90 failure stage	DIN 51354-2	-	>13	>13	>13	>13	>13	>13

Above characteristics are mean values given as an information.

SPECIAL ADVICES

- For any Health and Safety issues MSDS can be found on www.quickfds.com.
- Biodegradable fluid disposal in the environment is prohibited.
- **CARTER BIO** is miscible with mineral oils.
- **CARTER BIO** is formulated with synthetic esters type base oils.
- Store under cover and away from any risk of contamination.