



# TECHNICAL DATA

## **GB BIO HYDRAULIC OIL RANGE**

A premium range of biodegradable hydraulic fluids formulated on vegetable oils

## **APPLICATIONS**

There is an increasing awareness of the environmental impact of the large volume of lubricants entering the environment and, consequently, mineral-based lubricants in environmentally sensitive areas are being gradually replaced by biodegradable fluids.

To protect the environment, the use of environmentally considerate lubricants is essential, particularly where either the risk of spillage is high or total loss lubrication applies. However, the technical performance of such lubricants must have equal priority.

The GB BIO HYDRAULIC OIL RANGE is readily biodegradable and virtually non-toxic and has been developed using specially selected additives and vegetable oils. These hydraulic fluids are suitable for virtually all hydraulic systems operating at temperatures of up to 60°C.

## **PERFORMANCE FEATURES**

The GB BIO HYDRAULIC OIL RANGE has been formulated to meet the current technical and environmental requirements of today's hydraulic equipment and offers the following features:

- Full biodegradability according to all major standards
- A product which is free of genetically modified ingredients
- Ashless technology
- Good anti-wear performance
- Good oxidation stability
- Good corrosion protection
- Suitability for use under mechanical conditions where the temperature of the lubricant could reach 60°C

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## **GB LUBRICANTS**

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Q 06093  
ISO 9001



EMS 72776  
ISO 14001



OHS 88475  
OHSAS 18001

# GB LUBRICANTS

## GB BIO HYDRAULIC OIL RANGE

### COMPATIBILITY

Ideally, the GB BIO HYDRAULIC OIL RANGE should not be contaminated with other oils or water. Whilst contamination with other oils may not affect the equipment, it is likely to reduce the biodegradability and non-toxicity of the oil and should therefore be avoided.

### CHARACTERISTICS

TEST	UNIT	METHOD	TYPICAL PHYSICAL CHARACTERISTICS		
			32	46	68
<b>ISO</b>					
Appearance			Clear yellow liquid		
Density at 15°C	kg/m <sup>3</sup>	IP 160	923	924	924
Kinematic Viscosity at 40°C	cSt	IP 71	38.3	46.7	65.7
Kinematic Viscosity at 100°C	cSt	IP 71	8.6	10.5	14.7
Viscosity Index		IP 226	212	222	236
Biodegradability	%	OECD 301 B	>95	>95	>95
FZG Performance		DIN 51354 Part 2	>10	>10	>10
Flash Point (PMCC)	°C	ASTM D93	201	199	195
Pour Point	°C	ASTM D97	-33	-36	-36
Cloud Point	°C	ASTM D2500	-17	-18	-20
Kinematic Viscosity @ -20°C	mm <sup>2</sup> /s	ASTM D445	1081	1234	1731
Kinematic Viscosity @ -20°C after 72 hours storage	mm <sup>2</sup> /s	ASTM D445	1135	1292	1794

### STORAGE, HANDLING AND SHELF-LIFE

GB BIO HYDRAULIC OIL RANGE should be stored under cover and protected from extreme temperatures. Avoid water collecting in the rim of upturned barrels.

### HEALTH, SAFETY AND THE ENVIRONMENT

GB BIO HYDRAULIC OIL RANGE is not classified as hazardous under current UK Health & Safety and Environmental Legislation when used in the application for which it is intended.

For guidance on storage and handling of all lubricants and related products, GB Lubricants recommend the Environment Agency, [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk), as an excellent source of advice.

If you have any queries, please do not hesitate to contact either your local Technical Sales Representative or our Technical Department.

The Company policy is to ensure that a range of products is supplied which complies with the latest specifications and codes within the relevant industry. As part of this development process, we therefore reserve the right to amend formulations and specifications, without prior notice.