



Busted:

Three equipment myths around biodegradable lubricants



There is a misconception that biodegradable lubricants are not suitable for use with equipment and machinery. Here are three of the most common myths behind this.

MYTH 1

Using biodegradable lubricants can invalidate equipment warranties

Due to a lack of awareness around industry standards, many businesses believe that original equipment manufacturers (OEMs) do not approve the use of biodegradable lubricants with their equipment.

However, many OEMs do approve their use, including:

- **Bosch Rexroth¹**
- **Danfoss²**
- **Volvo Construction Equipment³**
- **Herrenknecht⁴**
- **KAISER AG⁵**
- **Parker Hannifin Corporation⁶**

Some even include environmentally acceptable lubricants (EALs) wording in their warranties and specifications.⁷

MYTH 2

Biodegradable lubricants do not meet industry standards whereas mineral fluids do

Biodegradable lubricants meet industry standards but are assessed differently to incorporate the measurement of biodegradation, toxicity and accumulation.

- In Ecolabel specifications (including EU Ecolabel, Swedish Standard and Eco Mark Japan), EAL fluids are required to meet a minimum technical performance.
- Some EALs can also meet mineral oil specifications – including standard DIN specifications for gear oils and greases.

Many OEMs recommend EALs for use in their equipment as they meet or exceed the standards required of a mineral oil fluid.

Examples of Ecomarks and fluids:

- **EU Ecolabel example:** Shell PANOLIN S4 HLP Synth EAL, Shell PANOLIN S4 Gear EAL, Shell PANOLIN S5 Grease EAL V320 2 and more
- **Swedish Standard:** Shell PANOLIN S4 HLP Synth EAL, Shell PANOLIN S2 Hydraulic DU EAL, Shell PANOLIN S5 Grease EAL V320 2

MYTH 3

Biodegradable lubricants are in trial phase and not ready for widespread use

Biodegradable lubricants are ready for use across a range of applications and have undergone continual development to meet evolving standards for more than 40 years:

- Since 1978, Ecolabels have been setting high standards for environmentally friendly lubricant formulation.⁸
- In 1989, the Japanese Eco Mark came into force, with the EU Ecolabel founded three years later in 1992.⁹
- The United States Environmental Protection agency issued the Vessel General Permit in April 2013 covering the usage of EALs in commercial vessels greater than 79 feet in length in US waters.¹⁰

Biodegradables are often available in smaller volumes, creating the perception that EALs are at an earlier stage of their development.

Discover more at www.shell.com/panolin

¹ Shell PANOLIN S4 HLP Synth 32, 46

² Shell PANOLIN S4 HLP Synth 15, 46, 68

³ Shell PANOLIN S4 HLP Synth 32, 46

⁴ Shell PANOLIN S2 Hydraulic DU EAL 46,68

⁵ Shell PANOLIN S4 HLP Synth 15,22,32,46,68

⁶ Shell PANOLIN S4 HLP Synth EAL 46

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⁷ [Simplex Environmental Acceptable Lubricant \(EAL\) List](#), [Aftermarket.zf](#), [Approved lubricant classes PDF \(127 KB\)](#) and [PALFINGER Standard PNORM 04.01.03](#).

⁸ [Blue Angel, 'Ecolabel with history'](#).

⁹ [Eco Mark](#).

¹⁰ [Vessels-VGP EPA](#).



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