

LUBE

TECHNI-GRAM



FROM:

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September 2003

READILY BIODEGRADABLE VS. "INHERENTLY" BIODEGRADABLE HYDRAULIC OILS

For the past several years, much has been said and written about biodegradable lubricants. Unfortunately, many current and prospective customers are still in the dark about what product will put them in compliance with governmental agencies environmental regulations and monitoring...and avoid the risk of fines...while still providing the performance needed for profitable production. Much of this customer dilemma has resulted from confusion among definitions and specifications...misunderstanding of government regulations...the lube industry's difficulty evaluating products...and the fact that the term "biodegradable" has become a marketing ploy and is often misused with some lubricant manufacturers playing "name-games" with terms like **environmentally aware**, **environmentally conscious** or **environmentally preferable**.

In addition, biodegradable lubricants have suffered to some extent from an early bad reputation:

- ❖ First generation biodegradable fluids generally were vegetable oils.
- ❖ They lacked oxidation resistance and broke down in older design hydraulic systems with poor filtration and over heating conditions.
- ❖ Low temperature performance was also inferior due to waxing tendencies similar to diesel fuel.
- ❖ They generally did not provide the degree of protection or length of service customers needed.

With the introduction of **SWEPCO 737 EcoPro Anti-Wear Hydraulic Oil**, customers can now have a **high performance, non-toxic, biodegradable** hydraulic fluid which delivers performance superior to conventional biodegradable fluids **and** many petroleum-based fluids in areas such as service life, high temperature resistance, lubricity, low temperature fluidity and wear control. SWEPCO 737 is a readily biodegradable fluid versus an array of products on the market listing themselves as "inherently" biodegradable. There is a big difference.

Environmental specifications are directed at biodegradability which are expressed in terms of the percentage of a product which will degrade in a specific length of time. Readily biodegradable products distinguishes materials which are quickly decomposed into harmless byproducts, while "inherently" biodegradable basically means it will eventually biodegrade. As an example, many tests on "inherently" biodegradable hydraulic oils typically reported only 25% breakdown in 28 days. Since fines for oil spills are generally based upon the severity of the hazard to the environment, they can be assessed immediately and continue to escalate...even shutting down businesses until clean-up is completed. With readily biodegradable products,



... to keep it running

in many cases, fines can be waived altogether if the contamination dissipates quickly. SWEPCO's 737 EcoPro Anti-Wear Hydraulic Oil, with its unsurpassed 96% biodegradability in 28 days, exceeds all physical requirements for the worlds most stringent eco-label programs.

Advantages of SWEPCO 737 Readily Biodegradable Hydraulic

- ❖ Absolutely non-toxic to aquatic life.
- ❖ Does not produce rainbow sheen.
- ❖ Specifically formulated for improved high temperature resistance, long life service and superior wear control.
- ❖ Superior to many petroleum based lubricants in natural lubricity – 50 lb Timken OK Load.
- ❖ High VI natural esters with superior oxidative and thermal stability – protection to +280°F.
- ❖ Excellent low temperature flowability – won't clog filters or inhibit lubrication – good down to <-30°F.
- ❖ Superior resistance to foam, rust & corrosion.
- ❖ Exceeds requirements of major hydraulic component manufacturers.
- ❖ Exceeds all physical requirements of Environmental Choice®, Blue Angel & Global Ecolabelling Network eco-label programs.
- ❖ Helps control risk by minimizing the degree of pollution in the event of a spill.
- ❖ Helps users comply with environmental regulations.
- ❖ Reduces the cost and duration of a spill clean-up.
- ❖ Reduces the cost of waste oil disposal.
- ❖ Can provide good performance which rivals and exceeds many conventional petroleum based lubricants.
- ❖ Generally fluids which are greater than 90% biodegradable in 28 days are now required by industry.