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Shell is supplier of lubricants to the Swiss AlpTransit Gotthard project, drilling and excavating the world's largest rail tunnel (57 km).

## We care about your equipment and the environment

Product*	Description	Key Features
Shell Naturelle Hydraulic Fluid Ester	Environmentally considerate synthetic hydraulic fluids	<ul style="list-style-type: none"> <li>• Readily biodegradable</li> <li>• Excellent temperature characteristics</li> <li>• Higher shear stability</li> <li>• Excellent corrosion protection</li> <li>• Good oxidation resistance</li> <li>• Excellent wear protection</li> </ul>
Shell Naturelle Gear Fluid EP	Environmentally considerate synthetic gear fluids	<ul style="list-style-type: none"> <li>• Readily biodegradable</li> <li>• Excellent load carrying capacity</li> <li>• Excellent oxidation stability</li> <li>• Superior thermal stability</li> <li>• Improved gear efficiency</li> <li>• Excellent corrosion protection</li> </ul>
Shell Naturelle Chain Fluid SM	Environmentally considerate vegetable based chainsaw fluids	<ul style="list-style-type: none"> <li>• Readily biodegradable</li> <li>• Good lubricity</li> <li>• Good low temperature properties</li> <li>• Low level of oil mist</li> </ul>
Shell Naturelle Grease EP	Environmentally considerate synthetic multi service bearing greases	<ul style="list-style-type: none"> <li>• Readily biodegradable</li> <li>• Good oxidation stability</li> <li>• Excellent mechanical stability</li> <li>• Good corrosion protection</li> </ul>

(\* Subject to availability in the market)

The conversion to an environmental lubricant has to be considered in line with the lubricating system's design characteristics and the equipment manufacturer's specification.

Furthermore to ensure that environmental properties are maintained, the system should be drained and flushed prior to change over.



Environmentally Considerate Lubricants refer to lubricants meeting the relevant Biodegradability (OECD 301B) and Eco Toxicity (OECD 201 - 203) standards. Always refer to latest local standards.

Whilst Shell Lubricants have made every effort to ensure that the information provided is accurate, the original OEM approval, latest Environmental Agency recommendation and Product Data Sheet should always be referred to. Please note not all products in this brochure may be available in all countries.

Your Shell Naturelle supplier:



[www.shell.com/naturelle](http://www.shell.com/naturelle)



## Protection for your equipment and the environment

Shell **Naturelle**® is a range of advanced environmentally considerate lubricants providing a superior balance of biodegradability, low eco-toxicity and lubrication performance. Products meet or exceed key OEM specifications as well as the major environmental standards ensuring your valuable equipment and the environment are both given the protection that is required.

The Shell **Naturelle** range can help you to achieve standards like ISO 14001 or comply with legal and tax advantage programs.

### A wide range of applications

Designed for applications in which the lubricant is lost to the environment, or in which there is a risk that such loss will occur, for example:

- Mining
- Construction
- Tunneling
- Shipping
- Pulp, paper & forestry
- Earth moving equipment
- Public work & water treatment
- Machine tool hydraulic systems
- Hydrostatic drive gears
- General industrial hydraulic systems.



### Shell Naturelle Hydraulic Fluid-Ester (HF-E)

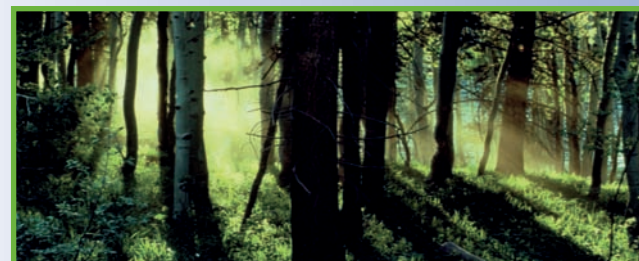
Environmentally considerate synthetic hydraulic fluids.

- For use in power transmission and hydraulic systems working in environmentally sensitive areas.
- Can be used where DIN 51524 Part 2 or Part 3 (HLP/-HVL) anti-wear petroleum mineral hydraulic oil is specified. It meets the standard of, is approved or recommended by Bosch Rexroth, David Brown – Textron Transmission, Eaton – Vickers, Herrenknecht tunneling machines, Hitachi Construction, Hudding AP, IHI Construction Machinery, Komatsu, Mitsubishi, Caterpillar Forklift and Rollstar.
- Compatible with seal materials and paints normally specified for use with petroleum mineral oils.

### Shell Naturelle Gear Fluid EP

Environmentally considerate synthetic gear fluids.

- Gear and bearing oils offering outstanding lubrication performance under severe duty conditions, including improved energy efficiency, long service life and high resistance to micro-pitting for gear protection.
- Passes FAG FE-8 rolling bearing test, according to DIN 51819, and are recommended by Flender, Lenze and by Herrenknecht tunneling machines with Getriebe Nord, Lohman and Stolterfoth & Rollstar planetary gears.
- Compatible with seal materials and paints normally specified for use with mineral oils.



### Shell Naturelle Chain Fluid SM

Environmentally considerate vegetable based chainsaw fluids.

- For use in chainsaw and transport chain lubrication. Shell **Naturelle** Chain Fluid SM 68 is recommended for chainsaw chains in general use. Shell **Naturelle** Chain Fluid SM 32 is recommended for transport-chains e.g. saw mills or centralised lubrication systems.
- Provides good lubricity and low temperature properties.
- Successfully used in many applications in Scandinavia.

### Shell Naturelle Grease EP

Environmentally considerate synthetic multi service bearing greases.

- Based on a lithium hydroxystearate soap thickener, fortified with extreme pressure, anti-oxidant, anti-wear and anti-rust additives.
- Operates over the temperature range -20°C to 100°C for bearings operating at 75% of the maximum rated speed (can withstand up to 120°C).
- Applicable for heavy duty plain and rolling element bearings operating under severe conditions including shock-loading in wet environments.