



# SHELL NATURELLE<sup>®</sup>

## FLUIDS HF-E

### Biodegradable synthetic anti-wear hydraulic fluids

#### Product Description

Shell Naturelle<sup>®</sup> Fluids HF-E are advanced biodegradable hydraulic fluids for use in power transmission and hydraulic systems working in environmentally sensitive areas. Synthetic esters and a specially tailored additive system provide Shell Naturelle<sup>®</sup> Fluids HF-E with an excellent balance of biodegradability and lubrication performance.

#### Applications

- higher operating temperatures and applications where a premium biodegradable product is required
- anti-wear hydraulic systems of construction and earth moving equipment
- machine tool hydraulic systems
- moderately rated gearboxes where an anti-wear hydraulic oil is specified
- operating temperatures up to 90°C (194°F)

#### Features/Benefits

- excellent viscosity-temperature characteristics
- outstanding corrosion protection and oxidation resistance
- good aging stability
- optimal anti-wear protection

Typical Properties of Shell Naturelle <sup>®</sup> Fluids HF-E Hydraulic Fluids			
	Test Method	ISO Viscosity Grade	
Product Code		65176	65177
		32	46
Density @ 15°C, kg/m <sup>3</sup>	D 1298	0.915	0.919
Viscosity @ 40°C, cSt	D 445	31.6	46
Flash Point, °C	D 92	209	214
Pour Point, °C	D 97	-57	-48
Biodegradability	OECD 301B <sup>1</sup>	>60	>60

<sup>1</sup>The OECD 301B test measures ready biodegradability and the pass level is set at 60 per cent for complete mineralization.

#### Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.