

# Shell Macron 620 M-22 / 32 / 46

# **Neat EP Tri Purpose Oil**

Shell Macron 620 M-series are neat EP cutting oils for severe machining of steel, aluminium and yellow metals and fully compliant to HLP DIN 51 524-2 and CLP DIN 51517-3.

## **Applications**

Shell Macron 620 M-series are high performance EP cutting oils for operations on medium to high alloy steels, aluminium and yellow metals.

Shell Macron 620 M-series have multipurpose oil characteristics for both hydraulic oil HLP DIN 51524-2 and gear oil CLP DIN 51517-3. It has a good de-aeration power, does not foam and is not aggressive for the paints on machine tools.

#### **Performance Features and Benefits**

Shell Macron 620 M-series are chlorine free and ashless products with low aromatic content. A well balance combination of polar, extreme pressure and anti-wear additives gives the oil high load carrying properties. Shell Macron 620 M-series provide:

- Full compliance to hydraulic oils HLP DIN 51 524-2
- Full compliance to gear oils CLP DIN 51517-3
- Free of heavy metals
- Excellent tool life and good surface finish of the machined work pieces
- Low oil mist and vapor

#### Storage

The product should be stored inside  $(5 - 40^{\circ}\text{C})$  for no more than 2 years and be protected from freezing.

### **Health & Safety**

Shell Macron 620 M-series are unlikely to present any significant health or safety hazard when properly used in recommended application and good standards of industrial and personal hygiene are maintained.

#### Protect the environment

Waste must be disposed in accordance with the EC Directives 91/156, 91/689 and 94/62. Outside the EC we strongly recommend to follow local legislation and regulations.

Further information can be taken from the appropriate Material Safety Data Sheet or contact the local Shell Technical Service.

# **Typical Physical Characteristics**

	Shell Macron 620 M-22	Shell Macron 620 M-32	Shell Macron 620 M-46
Density at 20 °C in kg/m³ (DIN EN ISO 12185)	865	870	875
Kinematic Viscosity at 40 °C in mm <sup>2</sup> /s (ASTM D 7042)	22	32	46
Flash point in °C (ASTM D 93)	200	220	230
Appearance	yellow	yellow	yellow

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.