

# SHELL METALINA® B 3650

## Water extendible metalworking fluid

SHELL METALINA® B 3650 is a full synthetic, high quality coolant free of chlorine, secondary amines, and boron. It is recommended for medium to heavy duty cutting applications of steel alloys.

### Performance Features and Benefits

- High lubricity – resulting in prolonged tool life, increased surface finish, lower reject rate
- High stability – consistent product quality and performance maintained throughout its life
- Full rejection of tramp oil – better working conditions, provides cleaner components, reduced degreasing and disposal costs
- Excellent foaming behavior
- Transparent solution – excellent visibility of the work piece
- Operator friendly

### Main Applications

SHELL METALINA® B 3650 is recommended for cutting operations on steel alloys. It is strongly advised to use SHELL METALINA® B 3650 only in combination with demineralized or very soft water (< 7°dH).

Advice on applications not covered in this handbook may be obtained from your Shell representative.

### Recommended Concentrations

The concentration varies depending on the type of machining operation, the water hardness, and the required corrosion protection. The typical recommended concentrations for use in low water hardness are:

- General machining : 4 – 6 %
- Heavy duty operations : 8 – 10 %

### Storage Requirements

The product should be stored inside (41-104°F) for no more than one year. Freezing should be avoided.

### Handling and Safety Information

Please note that mixed coolants work over long periods of time, therefore chemical contamination (hydraulic oils, greases, metal solutions, paints, rust inhibitors, etc.) or bacterial contamination (from dirty hands, work pieces, industrial grade water, sundry waste, etc.) can often occur. Contamination with the above materials should be minimized/eliminated. Regular monitoring of the in-use product is recommended to maintain optimum product condition and for determination of its useful working life.

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

### Protect the Environment

Do not discharge into drains, soil, or water.

### Typical Physical Characteristics

	Unit	Method	SHELL METALINA® B 3650
Mineral Oil content	%		0
Kinematic Viscosity @ 20 °C	cSt		55-75
Density @ 20 °C	kg/L	ASTM D 1298	1.07
pH of the emulsion at 3%		DIN 51369	9.2
Min Anti-Cor. Protection Limit (0-0)	%	DIN 51360/2	5.0
Refractometer Factor			2.1

*These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.*