

### Product Description

Cutrex 6R is a low viscosity, dark brown, straight broaching oil. It is made from solvent refined mineral oil containing anti-wear and lubricity materials. It is non-corrosive to copper.

It is a low viscosity product which penetrates to the extreme tip of the cutting edges where high temperatures and pressures cause the additive materials to form complex compounds to prevent metallic contact at the tool tip/workpiece interface. Broach wear is reduced, broach life is extended and dimensional accuracy maintained with increased production rates. The low viscosity flushes away the minute metallic chips which can accumulate and cause tool breakage in intricate profile operations. The fluidity of the oil also rapidly dissipates the heat generated in the tool and workpiece. This helps to reduce distortion and maintain dimensional accuracy.

### Benefits

Cutrex 6R offers the following benefits:

- High additive content gives excellent component surface finish and dimensional accuracy
- Resistance to broach wear gives long tool life and improved production rates
- Feeds and speeds can be increased with no adverse effects on tool life
- Recommended for both horizontal and vertical broaching of ferrous and non-ferrous metals
- Recommended for both internal and external broaching operations
- Slideways and fixtures kept free from staining

### Application

Cutrex 6R is able to cope with very severe operating conditions and is recommended for internal and external broaching operations on a wide variety of materials from tough, luggy alloy metals, used in the manufacture of gas turbine rotor blades (up to 400 Brinell), to softer more ductile non-ferrous metals.

Cutrex 6R is recommended for applications where a tool life problem exists due to lack of cutting oil penetration into the actual cutting area, or where excessive tool weld, cratering and wear is being experienced.

Cutrex 6R is non-corrosive to copper and is specially formulated to give long tool life and extremely good surface finish in the most intricate broaching operations.

Although primarily intended as a broaching oil for a wide variety of metal and configurations, Cutrex 6R can also be used for other machining operations such as turning, milling, drilling, tapping, reaming, boring, grinding and honing. It is suitable for semi- and fully automatic machine operations, where the cutting oil often lubricates slides and guides on machine elements.

## Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly.

Details on handling, as well as health and safety information, can be found in the Material Safety Data Bulletin which can be obtained through Mobil Oil Company Ltd., by telephoning 01372 22 2000.

Typical physical characteristics are given in the table. These are intended as a guide to industry and are not necessarily manufacturing or marketing specifications.

## Typical Characteristics

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### Cutrex 6R

Relative Density 15/4 °C	0.940
Viscosity, cSt at 40°C	11
Flash Point, PMCC °C min.	120
Colour	Dark

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Due to continual product research and development, the information contained herein is subject to change without notice.

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