# **Product Data Sheet**

## Vacmul 712

**High Performance Neat Cutting Oil** 

### **Product Description**

Vacmul 712 is a light brown, low viscosity, extreme pressure (EP) neat cutting oil, formulated using a hydrocracked mineral base oil only. It is a multi-purpose product, capable of machining a wide variety of ferrous and non ferrous metals.

Vacmul 712 is part of an advanced generation of neat cutting oils using Mobil's hydrocracked base oils and incorporating new chlorine free extreme pressure (EP) additive technology for use in heavy duty machining operations.

#### **Benefits**

Vacmul 712 offers the following benefits:

- Low mist generation even under high speed operations
- Low tool wear and improved surface finish
- Excellent oxidation stability offers long service life
- Multi-purpose usage allowing product rationalisation
- Low viscosity means improved swarf/oil separation
- Low odour and aromatic content (<1.0%) for operator acceptability
- Chlorine and zinc free ensures lower disposal costs

## **Application**

Vacmul 712 is suitable for a very wide range of machining operations - normal and high speed - with a variety of different feedstocks. It can be used in bar turning, milling, turning, thread rolling operations on medium and high tensile steels. It can be also used for the machining of non ferrous materials such as aluminium and copper based alloys.

The low viscosity of Vacmul 712 ensures excellent flushing performance hence the product can also be used in deep hole drilling and some honing applications.

To obtain the best performance with Vacmul 712, it is recommended to regularly filter the oil. This treatment avoids recycling metal fines and prolongs tool life and maintains surface finish.

Vacmul 712 can be used in both individual machine tools or in centralised systems.

## **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**

			Vacmul 712
Appearance Colour	Test Methods	Units	clear liquid light brown
Density at 15 °C	ISO 3675 / ASTM D1298	kg/m³	843
Kinematic Viscosity at 20 °C at 40°C at 100°C	ISO 3106 / ASTM D445	mm²/s	27 14 3.4
Viscosity Index	ISO 2909/ASTM D2270		137
Flash Point (PMC)	ISO 2719/ASTM D93	°C	182
Pour Point	ISO 3016/ASTM D97	°C	-27
Copper Corrosion	ISO 2160/ASTM D130		1A
Neutralisation Number	ASTM D664	mgKOH/g	0.36
Reichert at 1500N	Reichert	mm²	3.0
4 Ball Weld Load	ASTM D2783	N	4400

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

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