

Superior Performance Lubricants



*Korniche*<sup>®</sup>

A close-up photograph of a metalworking process. A drill bit is cutting into a metal workpiece, with a large spray of white coolant liquid surrounding the cutting area. The background is blurred, showing industrial machinery.

# KMIG

**KORNICHE MAGNESIUM ALLOYS  
METALWORKING CARE SOLUTIONS**



## COMPANY INTRODUCTION

**Oxton Chemical Limited (OCL)** has its foundation in the beautiful English town of Oxford renowned worldwide for its academic heritage. Oxford provides the ideal environment for creative and unique research and development concepts to materialise.

Established originally by graduate chemists and technologists who had specialised in the research of lubrication technology. They were also responsible for many of the advancements made in the field of specialty lubricants. The Company was relocated to the industrial core of United Kingdom in 1998. It changed its name to Oxton Chemical Limited and created the **Korniche** range of advanced lubricants. With a long history of working in the field of lubricant development, application and production, OCL provides state-of-the-art lubrication technology to manufacture its **Korniche** range of advanced lubricants and maintenance products.

**Korniche** specialty lubricants are produced under the most stringent quality control procedures and combined with its well trained and experienced support staff. The technology of these innovative lubricants is applied throughout the world including Europe, United States, Japan and South East Asia. The Korniche range of advanced lubricants is the ideal choice for today's industry.



# KORNICHE MAGNESIUM ALLOYS METALWORKING CARE SOLUTIONS

## n1

WATER SOLUBLE COOLANTS

## n2

MACHINE TOOL CARE PRODUCTS

# KORNICHE WATER SOLUBLE COOLANTS

Korniche SCF water soluble coolant series is manufactured using the latest bio-stable additive technology. The products can extend the life of sump tank and improve cutting performance. The production efficiency is better than traditional coolants.

Korniche's coolant helps to improve the quality of workpiece. This series of products includes white emulsion, semi-synthetic, fully synthetic and grinding coolants as well as heavy duty grade that can substitute neat cutting oils.

## FEATURES AND BENEFITS OF KORNICHE SCF SERIES

- ✓ Green characteristics, environmental friendly, safe and high performance
- ✓ Does not contain diethanolamine (DEA), phenol and other harmful substances
- ✓ High biological stability and long service life of emulsion
- ✓ Excellent lubricity, can effectively protect cutting tools and improve surface finish
- ✓ Reduce waste discharge and treatment costs
- ✓ Decrease monitoring and maintenance costs so as to shorten downtime
- ✓ Stable in hard water and is suitable for various water qualities

# PRODUCT APPLICATION

## PROCESSES

✓ Drilling, Milling

✓ Boring, Turning

✓ Tapping



## APPLICABLE INDUSTRIES

✓ Automotives, Motorcycles, Spare Parts

✓ Aviation, Defense, Medical Equipment

✓ 3C Products, Machinery, Hand Tools, etc.

# KORNICHE SEMI-SYNTHETIC COOLANT

| Product      | Features and Uses   |
|--------------|---|
| SCF 800 PLUS | <ul style="list-style-type: none"> <li>◆ The product is a water based metalworking fluid specifically designed for machining of magnesium alloy. With advanced formulation, it can cater for high concentration of magnesium ions, reducing the amount of hydrogen generation in machining.</li> <li>◆ The product provides excellent cooling effect and antifoam ability. It can withstand high pressure injection. Due to the presence of special additives, it also offers extreme pressure protection for tools without using conventional surfactants..</li> <li>● It is particularly suitable for magnesium alloys machining. Despite the content of magnesium salt is up to 7500 ppm, the emulsion is still stable.</li> <li>● It is also applicable to aluminium alloy, copper and other non-ferrous metal processing.</li> </ul> |

# KORNICHE EMUSIFYING COOLANT

| Product      | Features and Uses  |
|--------------|--|
| SCF 830 PLUS | <ul style="list-style-type: none"> <li>◆ The product is a high performance emulsion that is designed for machining magnesium and aluminium alloys. It can solve various problems including unstable emulsion, bad odour, hydrogen evolution and stain corrosion, etc.</li> <li>◆ It has low foaming tendency against high pressure jet, and is adaptable to both soft and hard water.</li> <li>● Suitable for use in aerospace, electronic and automotive industries.</li> <li>● Applicable for magnesium, aluminium and zinc alloys processing, such as turning, milling, drilling, boring, and tapping. It is especially appropriate for modern CNC machining centre including high speed CNC machines.</li> </ul> |

# TECHNICAL DATA

| Product      | Appearance                | Appearance @ 5% Dilution | Recommended Concentration              | Specific Gravity @ 20°C | pH @ 5% Dilution | Magnesium Corrosion Test                 |
|--------------|---------------------------|--------------------------|--|-------------------------|------------------|--|
| SCF 800 PLUS | Clear Light Orange Liquid | Clear Yellowish Liquid   | Turning / Milling / Drilling / Tapping | 5.0-8.0%                | 1.010            | 5%, distilled water, 55°C, 8 hr, Grade A |
| SCF 830 PLUS | Amber Translucent Liquid  | Yellowish Liquid         | Turning / Milling / Drilling / Tapping | 5.0-8.0%                | 0.9626           |  |

# KORNICHE MACHINE TOOL CARE

The maintenance of coolant and machine tools can greatly improve the performance of coolants and extend the service life of machinery and tools, thereby saving costs.

Korniche machine tool care and coolant maintenance products are specially developed in conjunction with the SCF series of water soluble cooling and grinding fluids. They are complementary to increase work efficiency.

| Product                        | Features and Uses   |   |
|--------------------------------|---|---|
| <b>Bio-Care System Cleaner</b> | <ul style="list-style-type: none"> <li>◆ The product is an emulsifiable machine degreaser and detergent.</li> <li>◆ Remove bad odour and effectively remove grease and slime. Inhibits and eliminates the growth of bacteria and fungi.</li> <li>◆ It has a fresh smell and is very popular among operators.</li> </ul> | <ul style="list-style-type: none"> <li>● It is suitable for use in isolated and centralised coolant systems. Degreasing and sterilisation are achieved in thorough cleaning.</li> <li>● It can be used during machining to avoid interruption of production.</li> </ul> |
| <b>Bio-Care</b>                | <ul style="list-style-type: none"> <li>◆ Designed to treat contaminated water based coolant, reducing bacterial counts and preventing further contamination.</li> </ul>   | <ul style="list-style-type: none"> <li>● Add directly to the sump at recommended concentration and repeat every 4 to 8 weeks.</li> </ul>  |
| <b>Antifoam P</b>              | <ul style="list-style-type: none"> <li>◆ This product is an active defoam agent and is particularly stable in water based cutting fluids.</li> <li>◆ Produces minimal surface residue.</li> </ul>   | <ul style="list-style-type: none"> <li>● Suitable for use in various types of water based coolants to control foam.</li> </ul>  |
| <b>pH Buffer</b>               | <ul style="list-style-type: none"> <li>◆ Excellent tank side additive, soluble in water.</li> <li>◆ Low foam, stable against hard water.</li> <li>◆ It can effectively buffer the pH value of coolant.</li> </ul>   | <ul style="list-style-type: none"> <li>● Effectively prevent and control various micro-organisms in traditional milky emulsion and semi-synthetic metal working fluids.</li> </ul>  |
| <b>Refractometer</b>           | <ul style="list-style-type: none"> <li>◆ High quality handheld optical instrument for rapid measurement of water based coolant concentration.</li> <li>◆ Convenient and easy to use.</li> </ul>   | <ul style="list-style-type: none"> <li>● It is used for checking the dilution ratio of water based coolant during use and dilution.</li> </ul>  |
| <b>Fluid Mixer</b>             | <ul style="list-style-type: none"> <li>◆ Barrel type automatic fluid mixer.</li> <li>◆ It is used for adjusting the coolant supply volume by rotating the concentration adjustment knob.</li> <li>◆ The ratio of water to concentrate can be adjusted to avoid errors.</li> </ul>                                       | <ul style="list-style-type: none"> <li>● Suitable for mixing soluble coolant concentrate with dynamic viscosity up to 500 CP.</li> </ul>  |



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