



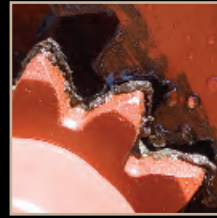
Advanced Lubricants, Oils and Fuel Additives

INDUSTRIAL

BUILT ON HISTORY PERFECTED THROUGH TIME



EXCELLENCE IN THE MAKING



Industry places high demands on plant and machinery. Modern manufacturing processes call for longer running periods, greatly increased efficiency and minimum downtime for maintenance or repair.

With a highly advanced range of lubricants, greases, metal working fluids and coolants, Millers Oils keeps the wheels of industry turning.



Millers Oils industrial products have been developed in response to the real needs of manufacturers. We work directly with customers across a range of sectors – engineering, general industrial, food, beverage and textiles – to deliver maximum efficiency throughout their manufacturing processes. We respond with products that help improve performance, increase reliability and prolong machine and tool life.



Our products and services are developed with the real needs of industry in mind.



MAINTENANCE LUBRICANTS 6-17

General lubricating oils	6
Hydraulic oils	6-7
Gear oils	7
Compressor oils	8
Slideway oils	8
Chain lubricants	9
Pneumatic tool oil	9
Refrigerant oils	9
Heat transfer oil	9
Flushing oil	9

FOOD, BEVERAGE AND PHARMACEUTICAL

NSF approved, H1 registered products

<i>Millfood</i> lubricants:	
Hydraulic oils, chain and gear oils, compressor/airline oils	10-11
<i>Millfood</i> greases	11
Aerosols	11
<i>Dri-Coat Ultra</i> chain lubricant	12

Non H1 approved products

Pharmaceutical/medicinal oils	13
Food preparation oil	13
Refrigerator coolant	13

GENERAL GREASES

Lithium and lithium complex	14-15
Calcium sulphonate complex	15
Bentone based greases	15
Silicone grease	16
Anti-seize compound	16
Sundry greases, compounds and viscous fluids	16

MISCELLANEOUS PRODUCTS

Solvents, cleaners and degreasers	17
Sundries, aerosols	17

ENGINEERING PRODUCTS 18-21

Water based metalworking fluids	18
Neat metalworking fluids	19
Tapping products	19
Drawing, pressing and forming lubricants	19
Spark erosion fluids	19

Quaker chemical

Metalworking and grinding fluids, hydraulic fluids	20
Rust preventives and dewatering fluids	21
Quench oils	21
Engineering sundries	21

TEXTILE LUBRICANTS 22

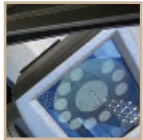
Scourable knitting oils	22
Non-Scourable oils	22
Technical white oils	22

MOULD RELEASE OILS 23

PROCESS OILS 23



Millers Oils has a reputation among its customers for the quality and technical excellence of its products. But it's not a position we take for granted. We know none of this would be possible without the highest standards of customer service, technical knowledge and support.



TECHNICAL SUPPORT



All our products are backed up by fast, accessible technical support. Our technical service team is always on hand to provide information and expert advice as and when it's needed.

Many of the technical details and specifications relating to our products and their use with particular equipment are held in our own extensive database, so the answers you need may be available already.

GLOBAL SALES SUPPORT

UK customers benefit from direct contact with Millers Oils through our network of sales and business managers who cover the whole of the country. For international customers, our export team will be happy to discuss your needs and put you in touch with one of our international distributors.



Glasgow – depot

Brighouse – Head office & depot

Abingdon – depot



TECHNICAL **ADVICE** Just ask.

TECHNICAL **HELP DESK**

+44 (0) 1484 475060

(in normal office hours)

technical@millersoils.co.uk



We can offer the following support:

- Advice on the correct use of our products.
- Lubrication problem solving.
- Material safety datasheets (MSDS) and health & safety support.
- Sample analysis of lubricants.
- Used oil analysis and oil recommendations.
- Clear guidance over technical and product specification issues.
- Be your guide through the lube labyrinth.



PRODUCT **DEVELOPMENT**

Our commitment to developing new, more effective products is ongoing.

Our independence makes an important difference here. Because we're not tied to a particular supplier we can select the very best from what's available, right the way across the market. So, when you choose Millers Oils, you know you're getting the highest quality products, with no compromises.

As you'd expect, before we introduce any product to the market it undergoes extensive testing and passes through a rigorous quality control procedure. This is why so many of our products exceed international manufacturer's standards and specifications.



TECHNICAL **SERVICES** Just ask.

FLUID MANAGEMENT

OIL ANALYSIS & CONDITION MONITORING

PREDICTIVE PLANNED MAINTENANCE

ENVIRONMENTAL ADVICE



Maintenance Lubricants

The cost of repair always exceeds the cost of maintenance.

There's always an excuse for not sticking to a regular maintenance programme. Too little time. Too expensive. But the fact is, when breakdowns occur, the costs in terms of downtime and repairs can be high. Put simply, machines run better and longer when they are properly lubricated. So high quality lubricants, used within a planned maintenance schedule, will save you time and money in the long run. Seen this way, lubrication isn't an expense, it's an investment.

Millers Oils produces a wide range of high quality lubricants covering many existing applications found in industry. We also work with customers to develop bespoke products which meet the demands of specialised applications.



Good maintenance reduces costs and increases competitiveness.

GENERAL LUBRICATING OILS

High quality lubricating oils covering a wide range of industrial applications.

MILLUBE

ISO VG 5, 22, 32, 46, 68, 100, 150, 220, 320, 460, 680, 1000

MILLUBE T: ISO VG 150, 220, 320

A versatile range of premium quality, general purpose lubricants that are solvent refined non-additive mineral oils.

APPLICATION: These oils are suitable for all general industrial applications that require a non-additive mineral oil. They can be used for the lubrication of machines such as high-speed spindles, and for the general lubrication of bearings and moderately loaded gearboxes.

FEATURES AND BENEFITS:

- Cost effective, thermally stable, providing long life in circulatory systems.
- The Millube T range has the benefit of added tacky adhesive qualities, useful in both vertical and horizontal applications.

HYDRAULIC OILS

For optimum performance across a wide range of hydraulic systems.

MILLMAX

ISO VG 2, 5, 10, 15, 22, 32, 37, 46, 68, 100, 150, 220

Standard, ZF (zinc free), HV (high viscosity index) and HV ZF combinations.

A large range of high quality mineral oil solvent refined hydraulic oils, with four fold additive treatment.

APPLICATION: For use in hydraulic and fluid power systems, ranging from high-speed, light viscosity spindle applications, through to mid-range circulatory systems and heavier viscosity applications.

FEATURES AND BENEFITS:

- Outstanding thermal and oxidation stability, improving system reliability, cleanliness and leading to longer operating life.
- Excellent anti-wear performance, reducing downtime.
- Corrosion protection and low foaming, resulting in cleaner, higher performing systems.
- A wide range of viscosities to accommodate most requirements.

MILLMAX FIRE RESISTANT & BIODEGRADABLE TYPES

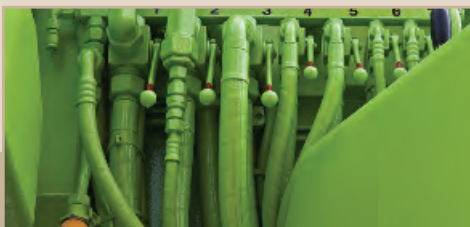
ISO VG 46, 68

Fire-resistant and biodegradable hydraulic fluids based on fully synthetic ester technology classified as HFD-U anhydrous type fluids - those that contain no water.

APPLICATION: Highly suitable for use in hydraulic applications where an HFD-U fluid offering fire resistance and biodegradability is required.

FEATURES AND BENEFITS:

- Offers a high degree of fire resistance, a mandatory requirement for some industries.
- Biodegradable, important in environmentally sensitive areas.
- Fully synthetic ester technology providing excellent wear protection and seal compatibility.
- High viscosity index providing multigrade performance.
- Low pour point, ideal for use in cold climates.
- Can be used in place of mineral oils with no modifications needed and no loss in performance.



MILLMAX BIODEGRADABLE

ISO VG 15, 22, 32

Fully-synthetic biodegradable hydraulic fluids, formulated using ester technology and ashless anti-wear additives. Classified as HEES (Hydraulic Environmental Ester Synthetic) type fluids.

APPLICATION: Recommended for use in environmentally sensitive areas, such as in close proximity to water courses, where a biodegradable HEES-type fluid is required.

FEATURES AND BENEFITS:

- Exceptional lubricity and high temperature performance providing excellent wear protection.
- High viscosity index providing multigrade performance.
- Low pour point, ideal for use in cold climates.
- Can be used in place of mineral oils with no modifications needed and no loss in performance.

MILLMAX FIRE RESISTANT

Includes an ISO 46 HFC water glycol type, an ISO 46 HFD phosphate ester type and an ISO 68 HFB invert emulsion type – 40% water in 60% oil.

APPLICATION: Recommended for use in hydraulic applications where a fire resistant fluid is required. Typical uses include: steel mills, casting shop machinery, furnace door closures, die casting machines, and underground equipment.

Please refer to Millers Oils Technical Dept. for details regarding application.

FEATURES AND BENEFITS:

- Offers a high degree of fire resistance.
- Stable long life service.

GEAR OILS

A range of high performance products for industrial gear systems.



MILLGEAR EP

ISO VG 32, 46, 68, 100, 150, 220, 320, 460, 680, 1000

High quality mineral and solvent-refined industrial gear oils containing extreme pressure (EP) additives.

APPLICATION: For the lubrication of industrial worm, helical and other reduction ratio gearboxes requiring EP lubricants.

NOTE: Millgear 460 EPT offers extreme pressure properties allied with a tacky adhesive additive, making this product highly suitable for chain conveyors in wet areas, and horizontal or vertical applications where anti-drip lubrication is required.

FEATURES AND BENEFITS:

- Outstanding thermal stability improves cleanliness and reliability in operation.
- Good wear protection properties extending component life, especially when running at higher temperatures.
- Excellent load bearing capability for improved lubrication.
- Non-staining to yellow metals, providing non-tarnish multi-metal lubrication.

MILLGEAR SHC RANGE

ISO VG 32, 46, 68, 100, 150, 220, 320, 460, 680, 1000

A range of fully synthetic gear oils based on synthesized hydrocarbons (SHC), reinforced with extreme pressure (EP) performance additives.

APPLICATION: For use in hydraulic systems, compressors and heavily loaded gears and bearings.

FEATURES AND BENEFITS:

- Fully synthetic formulation extends wear protection and lubricant life, reducing operational downtime.
- Excellent anti-foam and anti-corrosion properties.
- High viscosity index capabilities allow for consistently high performance across a range of temperatures.
- High lubricity content leads to potential reduction in power consumption.
- Can be mixed safely with conventional mineral oils.

MILLGEAR SY

ISO VG 150, 220, 320, 460

A range of fully synthetic, polyalkylene glycol (PAG) extreme pressure (EP) industrial gear lubricants.

APPLICATION: Suitable for a wide range of industrial gears, oven conveyor chains, stenter chains used on textile machinery and many other industrial applications where operations take place under high temperatures.

FEATURES AND BENEFITS:

- Synthetic PAG, performs at temperatures in excess of 200°C.
- Fully synthetic formulation extends wear protection and lubricant life, reducing operational downtime.
- High viscosity index reduces start-up drag and reaches optimum viscosity at operating temperature.
- Low oxidation leads to extended oil life.
- Excellent anti-corrosion protection of yellow and ferrous metals providing non-tarnish multi-metal lubrication.

NOTE: This type of lubricant should not be mixed with mineral oils. When changing from mineral oils to synthetic oils, it is important to flush the system with a suitable Millgear SY product.



Maintenance Lubricants

COMPRESSOR OILS

A range of lubricants for use with reciprocating and rotary type compressors.

MILLAIR

ISO VG 32, 46, 68, 100, 150

A range of compressor lubricants containing solvent refined mineral oils with a multifunctional high performance additive system.

APPLICATION: Suitable for the lubrication of reciprocating and rotary air compressors and vacuum pumps according to the equipment manufacturer's requirements and specifications.

FEATURES AND BENEFITS:

- High level of oxidation resistance for enhanced protection.
- Trouble free compressor life.
- Low volatility, low top up requirement.
- Effective corrosion protection for ferrous and non ferrous components.
- Resists emulsification reducing potential filter blocking.



EXTENDED DRAIN COMPRESSOR OILS

MILLERVANE 2000

An extended drain, mineral compressor oil developed using high quality solvent-refined base stocks and high performance additives. Green in appearance.

APPLICATION: For vane compressors requiring 2000+ hours operation. This product may also be used in reciprocating compressors which require this viscosity grade, removing the need for additional lubricants.

FEATURES AND BENEFITS:

- High levels of added detergency, anti-oxidation and wear protection throughout the drain period provide extended drain capability.
- Long-term use leads to reduced operational downtime and extended compressor life.

MILLAIR 46 SYNTH

An extended drain, synthetic based, compressor oil with multi-functional high performance additives.

APPLICATION: For the lubrication of reciprocating and rotary compressors requiring up to 4000 hours operation, according to manufacturer's specifications.

FEATURES AND BENEFITS:

- Extended drain periods up to 4000 hours reduce operational downtime.
- High level of oxidation and carbon deposit control ensures clean running conditions.
- Resists emulsification, reducing filter blocking.

SLIDEWAY OILS

Multi-functional lubricants for machining centres.

MILLWAY RANGE

ISO VG 32, 46, 68, 100, 150, 220

High performance slideway lubricants containing a blend of selected mineral oils with a four fold additive package including a tacky adhesive additive.

APPLICATION: Used for the lubrication of both horizontal and vertical slideways, tables and all machining centre applications where smooth, stick-slip free performance is required or where a tacky adhesive lubricant is needed. These lubricants can be used for the lubrication of headstocks, cross feeds, saddles and gearboxes.

FEATURES AND BENEFITS:

- High lubricity prevents stick-slip.
- Outstanding anti-wear and corrosion properties providing excellent machine protection.
- Non drip formula highly suitable for the lubrication of vertical surfaces.





CHAIN LUBRICANTS

A range of high temperature chain lubricants manufactured from thermally stable synthetic esters and other non-carbon forming materials. Contact us directly for the most suitable products for your applications.

APPLICATION: Recommended for chain drives working at higher temperatures – up to 250°C – and under difficult operational conditions.

Product applied by spray, drip or oil immersion.

FEATURES AND BENEFITS:

- Offers a wide temperature range capability providing lubrication performance at high temperatures.
- Ash-less additive systems to minimise deposit levels.
- High film strength for added protection under load.

PNEUMATIC TOOL OIL

MILLAIR 1946

A fully synthetic low pour point fluid incorporating anti-corrosion and anti-wear additives.

APPLICATION: To provide ice-free pneumatic tool lubrication.

REFRIGERANT OILS

MILLFLO

ISO VG 10, 32, 46, 68

A range of high quality, naphthenic mineral oils offering good oxidation control.

APPLICATION: Developed for use in refrigerator compressor systems of the following types: (R717) ammonia, (R12, R22) halocarbon (FREON) refrigerant grades.

FEATURES AND BENEFITS:

- Covers a range of low pour points from -25°C to -36°C.
- Excellent oxidation control and thermal stability provides reliability throughout.

NOTE: Not suitable for use with HFC-friendly gases e.g. R134a and R23.



HEAT TRANSFER OIL

HEAT TRANSFER 475

A high quality refined mineral oil heat transfer medium.

APPLICATION: For use as a heat transfer medium for jacketed vessels and other equipment requiring indirect heat transfer.

FEATURES AND BENEFITS:

- A versatile product with long system life capable of operating up to 315°C.
- Low volatility, therefore very little top-up required.
- Operates in gas, steam and electrically operated systems, removing the need for separate oils.

FLUSHING OIL

FLUSHING ADDITIVE HTS

A blend of mineral oil with a specific detergent additive package.

This product complements our Heat Transfer oil and any other circulatory oils for the protection and performance of heat transfer systems.



Put simply, machines run better and longer when they are properly lubricated.



Maintenance Lubricants

FOOD, BEVERAGE AND PHARMACEUTICAL

The food, beverage and pharmaceutical industries employ a diverse and demanding range of processes. But keeping manufacturing equipment running effectively with conventional lubricants isn't the only concern here. Typically there's a need for lubricants that cause no harm to the products being manufactured where contact occurs.

Millers Oils has developed an extensive range of lubricants, greases and aerosols that maintain consistently high performance in the aggressive working environments commonly found in these sectors. They also comply fully with the safety guidelines laid down by the FDA.

MILLFOOD LUBRICANTS

NSF APPROVED | H1 REGISTERED

A range of fully synthetic NSF H1 registered lubricants designed for use in a wide range of food and drink, processing and pharmaceutical applications.

All Millfood products carry both the NSF logo and NSF registration number.

Millfood products are:

- **NSF H1** registered and independently assessed.
- Safe for incidental food contact.
- Manufactured using only **FDA** listed substances and do not contain known allergens, genetically-modified components, animal extracts, sources of latex, wheat, gluten, celery, mustard, sulphites, dairy produce, nuts, nut oil or their derivatives.

NOTE: It is important to purge all systems if a non-approved grade has been used, before refilling with the correct Millfood product.

MILLFOOD HYDRAULIC OIL

ISO VG 32, 46, 68

A range of fully synthetic fluids, designed for a wide range of applications.

APPLICATION: Developed for use in hydraulic systems within the food, drink, pharmaceutical, processing and packaging industries which require specific viscosities, approvals and non-staining capabilities.

FEATURES AND BENEFITS:

- Low friction coefficient provides excellent lubrication and reduces wear.
- Extremely low foaming capabilities, reduces residues and extends maintenance intervals.
- High viscosity index provides excellent thermal stability leading to extended service intervals.



MILLFOOD SYNTHETIC HYDRAULIC OIL

ISO VG 32, 46, 68, 100

A range of fully synthetic non-toxic polyalphaolefin (PAO) based hydraulic lubricants for food, drink, pharmaceutical and other processing industries. Our synthetic range is manufactured to meet higher performance levels than the standard Millfood hydraulic oils.

APPLICATION: Ideal for hydraulic systems requiring food grade approval and non-staining capabilities, with the added benefits of lower pour point, higher flash point and a greater temperature range span than the standard Millfood hydraulic range.

FEATURES AND BENEFITS:

- Low friction coefficient provides excellent lubrication and reduces wear.
- Extremely low foaming capabilities, reduces residues and extends maintenance levels, helping to reduce costs.
- This type of synthetic fluid provides outstanding thermal stability leading to extended service intervals.

MILLFOOD CHAIN & GEAR OIL

ISO VG 150, 220, 320

Fully synthetic chain and gearbox oils.

APPLICATION: For drive and conveyor chains apply sparingly by brush, oil can or automatic lube system. Millfood 220 Chain & Gear oil contains an extra tackiness additive and is highly suitable for high speed production lines. For gearbox and reduction units, select by viscosity requirement.

FEATURES AND BENEFITS:

On chains:

- Penetrates the links and pins to reduce wear and extend chain life.
- Tackiness additive ensures non-drip, no-fling operation and provides lasting lubrication.
- Excellent adhesive properties ensure a high degree of water-resistance, protecting parts from corrosion even in the presence of acids often found in food and drink manufacture.
- The high viscosity index provides excellent temperature/viscosity stability, increasing versatility and extending service intervals.

In gearboxes:

- High level of oxidation stability extends fluid life.
- Unaffected by water. The demulsification process ensures total separation of water from oil.
- Tackiness additive coats gear surfaces, reducing wear at start-up.
- High viscosity index limits changes in viscosity as temperature increases.

**NSF****NSF APPROVED
H1 REGISTERED**

MILLFOOD COMPRESSOR OIL

ISO VG 46, 68**A fully synthetic polyalphaolefin (PAO) based lubricant.**

APPLICATION: For use on all types of airline and compressors found in the food, drink, processing, packaging and pharmaceutical industries. Designed for applications where ISO 46 and ISO 68 viscosities are specified by the manufacturer.

FEATURES AND BENEFITS:

- Low friction coefficient provides excellent lubrication and reduces wear.
- Extremely low foaming capabilities, reduces residue, varnish and scum build-up, reducing maintenance costs.
- Unaffected by water. The demulsification process ensures total separation of water from oil.
- Fully synthetic formulation extends operation capability across an extremely wide range of temperatures.
- Excellent oxidation stability, leading to extended service and maintenance intervals.

MILLFOOD AIRLINE OIL

ISO VG 32**A fully synthetic airline lubricant.**

APPLICATION: Developed for all types of pneumatic airlines used within the food and drink processing, packaging and pharmaceutical industries. Also suitable for compressed airline systems where a fully synthetic, non-staining product is specified by the manufacturer.

FEATURES AND BENEFITS:

- Low friction coefficient provides excellent lubrication and reduces wear.
- Protects against air moisture and provides a high degree of internal corrosion protection.
- Reduces residue and scum build-up, extending maintenance intervals.



MILLFOOD GREASES

NSF APPROVED | H1 REGISTERED

MILLFOOD PREMIUM GREASE

A range of high quality, fully synthetic, white greases containing extreme pressure (EP) and PTFE additives. The range includes: NLGI, 00, 1, 2, 2HT types.

APPLICATION: Formulated for use with automatic lubrication systems, sliding surfaces, plain and anti-friction bearings, particularly in heavily loaded applications in the presence of dust or other contaminants.

FEATURES AND BENEFITS:

- EP and PTFE additives provide a high degree of anti-wear performance, extending component life.
- Thermal stability provides long-term lubrication at high temperatures.
- Exceptional degree of water resistance provides longer lasting lubrication and protection against corrosion.
- 2HT grease operates at higher temperatures from -20°C to +220°C, greatly reducing the formation of carbon deposits associated with other high temperature greases.
- Resistant to chemical cleaning solutions used in the food and drink industries.

MILLFOOD STANDARD GREASE

A high quality, water-resistant, fully synthetic NLGI 2 grease. For lubricating anti-friction and plain bearings found in food processing environments.

APPLICATION: Suitable for general lubrication systems found in mixer gearboxes, conveyor bearings and pump bearings where incidental contact with food may occur. Particularly useful in wet areas where frequent wash-down during manufacture is essential.

FEATURES AND BENEFITS:

- NSF H1 registration makes this products safe for incidental food contact in manufacturing areas.
- The high degree of water resistance, provides lasting lubrication and corrosion protection.
- Good anti-wear and oxidation stability characteristics extend component life.
- This product does not contain genetically-modified ingredients, nut oil or derivatives.

FOOD GRADE AEROSOLS

Maximise productivity and profitability, maintain uninterrupted output and prevent machine failure with high performance aerosols.

We offer a range of aerosols with H1 NSF and INS approval for prescribed use in or around food areas. Contact us directly to discuss your requirements.



DRI-COAT ULTRA WR220

**A UNIQUE, NON-DEPOSIT
FORMING, HIGH TEMPERATURE
CHAIN LUBRICANT.**

NSF

Nonfood Compounds
Program Listed (Category Code H1)
(Registration No. 139243)

DRI-COAT ULTRA WR220

DRI-COAT ULTRA (DCU) is a unique NSF H1 listed, synthetic, high temperature lubricant which provides excellent lubrication without the deposits and lacquers often found with other high temperature chain lubricants.

DCU operates as a dry film at extreme temperatures, effectively preventing the adherence of food particles, further minimising chain contamination. The product is ideally suited for the lubrication of bearings, chains, slides and gears in working applications where the air temperature reaches 280°C and above.

OVERVIEW: Food manufacturers using high temperature conveyors during the production cycle face the dual problem of choosing a chain lubricant to meet the performance required while meeting the NSF H1 category for use as a lubricant with incidental food contact.

Most chain lubricants degrade to form either carbonised deposits, lacquers or caked, hardened graphite build up. The issue for manufacturers is to obtain a cost effective solution which meets all of the lubrication challenges posed by the use of conveyors and chains running at high temperatures, while at the same time eliminating costly downtime and cleaning routines associated with the use of inferior lubricants.

THE SOLUTION: DCU is specially designed to overcome these problems.

DCU is a suspension of high load carrying lubricating solids, dispersed in a synthetic fluid carrier which, when applied, penetrates the chain bearings and conveyor linkages, carrying with it the lubricating solids.

At low and ambient temperature the product acts as a high load carrying conventional liquid lubricant, whilst at high temperatures the fluid carrier gradually evaporates leaving the load carrying white lubricating solids. The carrier fluid "burns off" cleanly thus eliminating carbon and varnish deposits, even at temperatures in excess of 400°C.

DCU has been designed and proven to be more effective than leading brand polyol esters, graphited polyglycols and PFPE/PTFE based lubricants in common use, and is a highly effective, cost saving solution for the modern food manufacturer.

APPLICATION:

Bakeries	Oven chains and conveyors
Food industry	Beverage can lines
Textiles	Stenter frames
Refractories	Kiln car wheel bearings
Paint industry	Drying ovens
Cement plants	Kiln support rollers

FEATURES AND BENEFITS:

- NSF H1 approved, white in colour, essential for approved food applications.
- Clean-burn carrier fluid eliminates carbon and varnish deposits, reducing costly cleaning downtime.
- Clean in operation, does not attract flour or crumbs.
- High load carrying solid lubricant reduces wear and increases component life.
- Energy efficient: improved lubrication provides lower energy consumption.
- High performance and economical. Outperforms other fluids, lasting between 5 and 10 times longer than competitive brands, reducing usage and maintenance costs.



LUBRICATING OILS, NON H1 APPROVED



PHARMACEUTICAL/MEDICINAL OILS

CONFECTOL 15L, CONFECTOL 68

Manufactured from pharmacopoeia grade white oil.

APPLICATION: Suitable for applications which require a pharmaceutical/ medicinal white oil, such as food packaging, pharmaceutical and cosmetics machinery, as well as food areas where H1 approval is not required.

FEATURES AND BENEFITS:

- Colourless, odourless and tasteless meeting pharmaceutical/medicinal requirements.
- Chemically and biologically stable, does not support bacterial growth.
- Meets the food industry requirements FDA 172.878, FDA 21 CFR 178.3620(a). Meets pharmacopoeia requirements.

FOOD PREPARATION OIL

CONFECTOL 1625

A vegetable-based white oil suitable for use in food preparation.

APPLICATION: Used for lubricating lightly loaded machinery as well as slab parting blades in food preparation processes.

FEATURES AND BENEFITS:

- An edible and biodegradable oil.
- Excellent anti-stick, offering high lubricity properties.
- "Bland taste" leaving full product flavour.

REFRIGERATOR COOLANT

REFRIGERATOR COOLANT 1466

A mono propylene glycol coolant meeting pharmacopoeia requirements.

APPLICATION: For use in food chillers and food storage cabinets.

FEATURES AND BENEFITS:

- Food quality product essential in some applications.
- High purity > 99.8%.
- Excellent corrosion protection, ensures component longevity.



Maintenance Lubricants

GENERAL GREASES

High performance across the widest range of demanding industrial applications.



LITHIUM AND LITHIUM COMPLEX TYPE GREASES

DELTA 1EP, 2EP, 3EP

Multi-purpose NLGI lithium-based grease with extreme pressure (EP) additive package. Brown in appearance.

APPLICATION: Used for the lubrication of anti-friction and plain bearings.
NOTE: Delta 1EP grease is suitable for pumping through small bore pipe.

FEATURES AND BENEFITS:

- Designed to work at temperatures ranging from -20°C to +140°C, providing excellent lubrication over a wide range of operations.
- Good pumpability ensures consistent lubrication.
- Excellent water resistance provides protection against corrosion.
- EP properties provide the necessary protection where heavy or shock loading occurs.

DELTA OEP, 00EP, 000EP

Lithium based semi-fluid grease with extreme pressure (EP) additive package. Brown in appearance.

APPLICATION: Used within centralised lubrication systems for bearing and vehicle chassis lubrication. Delta OEP grease can also be used in gearbox applications requiring a self-collapsing fluid grease.

FEATURES AND BENEFITS:

- Adhesive EP capabilities promote excellent high load carrying characteristics.
- Suitable for operating temperatures ranging from -30°C to +110°C.
- Good pumpability ensures consistent lubrication.
- Excellent water resistance provides protection against corrosion.

DELTAPLEX 2EP

A lithium complex based grease with extreme pressure (EP) additive package. Red in appearance.

APPLICATION: A high quality grease which offers outstanding performance on all types of anti-friction bearings, particularly suitable for the lubrication of universal joints.

FEATURES AND BENEFITS:

- Good mechanical stability and tenacity ensures successful lubrication.
- EP properties generate excellent load carrying capabilities.
- Operates over a wide temperature range from -30°C to +150°C.
- Excellent water resistance provides protection against corrosion.

SYNPLEX 2175 HT NLGI 2 BLUE

A fully synthetic lithium complex grease with extreme pressure (EP) additive package. Blue in appearance.

APPLICATION: High performance synthetic grease designed to operate over a wide temperature range in automotive and industrial anti-friction bearings.

FEATURES AND BENEFITS:

- The use of fully synthetic base oil enhances lubrication performance.
- Extreme pressure performance ensures excellent wear protection.
- Operates over a wide temperature range from -40°C to +160°C, providing excellent lubrication across a diverse range of applications.
- Highly water resistant and therefore effective in humid or wet environments.

MILLERGREASE WG2

A premium quality lithium-calcium extreme pressure (EP) grease. Off white in appearance.

APPLICATION: Designed for use in anti-friction and plain bearings subjected to high load operations where water washout may be a problem.

FEATURES AND BENEFITS:

- Excellent load carrying and shock load resistance for heavy duty applications.
- Operates over a wide temperature range from -20°C to +140°C.
- Offers a high level of water resistance for added corrosion protection.





BLACK MOLY MPQ 2

A lithium grease with added molybdenum disulphide 'solid' lubricant and extreme pressure (EP) additives. Grey/black in appearance.

APPLICATION: A versatile, and multi purpose grease used extensively throughout industry and automotive applications. For use in anti-friction, plain bearings and sliding surfaces where solid lubricant inclusion is required.

FEATURES AND BENEFITS:

- Excellent extreme pressure and anti-wear performance providing lower friction values and a 'solid' lubricant film under severe load conditions.
- Good water resistance for added corrosion protection.
- Operates over a wide temperature range from -20°C to +140°C.

BLACK MOLY MM 2

As above but with the inclusion of a higher % content of molybdenum disulphide.

PIN & BUSH LUBRICANT (PBL)

A tenacious lithium grease with graphite and molybdenum disulphide solid lubricant. Grey/black in appearance.

APPLICATION: Designed for heavy duty applications where adhesion, shock loading and good corrosion protection are required. Ideal for use on bucket pins and bushes on heavy earth moving equipment and crane slews.

NOTE: PBL is not recommended for use on anti-friction, roller bearings.

FEATURES AND BENEFITS:

- High load carrying capability for heavy duty applications.
- Operates over a wide temperature range from -20°C to +140°C.
- Tenacious consistency resistant to water.
- High degree of oxidation and corrosion resistance for long-lasting lubrication.
- The presence of solid lubricant helps distribute the load evenly on worn surfaces, slowing down further wear.

CALCIUM SULPHONATE COMPLEX

MILLERGREASE HP2

A premium quality calcium sulphonate complex grease. Straw coloured in appearance.

APPLICATION: For the lubrication of bearings and components subjected to high temperatures, high load, saltwater ingress and certain levels of chemical attack.

FEATURES AND BENEFITS:

- Exceptional water repellency properties provide excellent corrosion protection.
- Very good thermal stability when performing at high temperatures.
- Operates over a wide temperature range from -30°C to +180°C.
- Good chemical resistance for operations in aggressive environments.

BENTONE BASED GREASES

MILLTONE A

A non-melting bentone-based NLGI 2 grease. Brown in appearance.

APPLICATION: Use on plain and anti-friction bearings operating at temperatures ranging from -20°C up to +200°C requiring regular re-lubrication.

FEATURES AND BENEFITS:

- Non-melting, therefore extremely effective for use at higher temperatures.
- Good rust and oxidation inhibitors provide protection against corrosion and degradation.

CA HAMMER GREASE

A semi-synthetic bentone-based NLGI 2 grease with added copper, graphite and aluminium performance enhancing solids. Silver/grey in appearance.

APPLICATION: Essentially used for the lubrication of air operated hammers and associated equipment in the quarrying industry.

FEATURES AND BENEFITS:

- Semi-synthetic lubricant capable of operating over a wide temperature range.
- High temperature performance. Under certain conditions will provide lubrication for applications at temperatures in excess of 1000°C.
- 20% solids content gives exceptional extreme pressure (EP) performance and protection under high impact.

Maintenance Lubricants - GENERAL GREASES

SILICONE GREASE

MILLERSIL NO.2

A water repellent non-melting silicone grease. Clear/grey in appearance.

APPLICATION: For use as a lubricant during the assembly of plastic and polythene water pipes, 'O' rings and seals. Also provides protection for porous metals and ceramics exposed to water.

FEATURES AND BENEFITS:

- Operating range from -58°C to + 280°C.
- Tasteless, odourless and non-toxic, and therefore classed as an environmentally/user-friendly product.
- No effect on plastic, rubbers or metal, therefore ideal as an aid to 'O' ring assembly on pipework.

ANTI-SEIZE COMPOUNDS

MILLERGREASE NS ANTI-SEIZE COMPOUND

Metallic-based anti-seize compound grease. Gold in appearance.

APPLICATION: An assembly compound and release agent for threaded connectors, track adjusters, rock drill extension rods and fasteners. Used at operating temperatures up to 150°C as a grease and up to 1100°C as an anti-seize compound.

FEATURES AND BENEFITS:

- Mechanically and thermally stable providing a non-melting performance compound.
- The inclusion of anti-seize agents reduces the torque required when tightening threaded connections without the risk of loosening.
- Provides resistance to salt water corrosion, useful for valve spindle lubrication in chemical and petrochemical industries.

SUNDRY GREASES, COMPOUNDS AND VISCOUS FLUIDS

BLACK ADHESIVE O

A residual compounded lubricant with adhesive properties.

APPLICATION: Apply by brush or pump application to wire ropes, flexible couplings, drag lines, gears and sliding surfaces.

OPEN GEAR COMPOUND

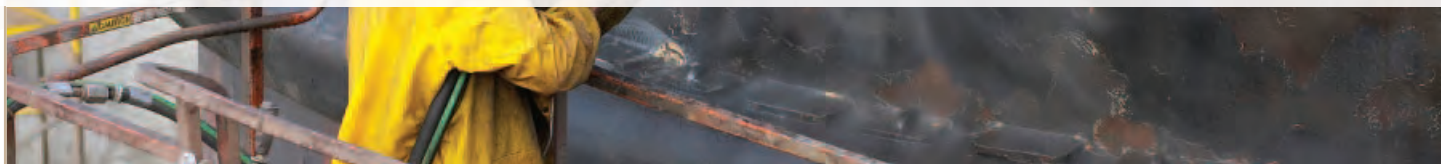
A jet black residual mineral compound.

APPLICATION: Use where a tough film is required on large exposed slow-moving gears and surfaces. Heating will ease application.





MISCELLANEOUS PRODUCTS



SOLVENTS, CLEANERS, DEGREASERS

SOLVE SAFE 2379

Solvent type multi-purpose cleaner and degreaser.

APPLICATION: Solve Safe is effective at removing oil, grease and particulate soils. Apply by brush, low pressure spray or immersion. Dip tanks can be agitated ultrasonically.

Test painted surfaces, rubbers and plastics for compatibility before use.

Allow cleaned components to drain well to minimise drying time.

E-VAP SOLVENT

E-VAP is a formulated blend of fast evaporating solvents, particularly useful for cleaning and degreasing vehicle brakes and clutches.

Caution: Vapour is heavier than air, distant ignition is possible. Do not spray on or near hot surfaces or naked flames.

GENERAL PURPOSE SOLVENT CLEANERS

Solvent 1489: A flammable white spirit based cleaner and solvent.

Commercial Paraffin: A general purpose cleaner.

POWER CLEANER 2011

Multi-purpose phosphate free power cleaner.

APPLICATION: For use on vehicles, industrial equipment and floors to remove grease, dirt and film deposits. Dilute to the recommended rate before using.

MILLSOL GREEN DEGREASING FLUID

Emulsifiable cleaning fluid based on low boiling point mineral oil fractions.

APPLICATION: Use to remove heavy oil, grease and soiling from metal parts. Brush well into the surface then hose off with water. Re-apply for heavily soiled areas if required.

SUNDRIES

GRAPHITED PENETRATING OIL

A penetrating/releasing oil incorporating graphite.

APPLICATION: Spray or soak onto seized or corroded parts such as nuts and bolts, fasteners, studs, valves and couplings.

MONOETHYLENE GLYCOL

Un-inhibited glycol in its natural form. Suitable for a range of industrial applications.

DE-IONISED WATER

De-mineralised water. For use in battery top-ups or as a test fluid.

ELI-DRY GRANULES

Absorbent sepiolite clay.

APPLICATION: Use to absorb spillage of all types of liquids.

AEROSOLS

Millers Oils supplies a range of high performance aerosols to meet the broadest range of industrial applications. These cover general industry, protective agents, lubricants, automotive and janitorial products.

In every case, the most rigorous research and development lies behind the formulation of these products, ensuring maximum performance wherever they are applied.



Engineering products

METALWORKING

In a highly competitive environment for engineering, maximum tool life, component finish and coolant life are key components in keeping production cost-effective.

To meet these demands directly, Millers Oils offers a wide range of water-based emulsifiable metalworking fluids, water-based synthetic solutions and a range of neat cutting and drawing lubricants, improving performance across every type of metalworking process.

To complement our process fluids we have a wide range of machine tool lubricants designed to work in synergy as a complete metalworking package.

WATER BASED METALWORKING FLUIDS

Drilling, cutting, grinding, forming, drawing - the ways that metal can be cut or re-shaped are endless. Yet these processes remain vital to maintaining a competitive edge in the current environment for manufacturing and industry.

For all types of metal and alloy including steel, copper, aluminium and titanium, Millers Oils offers a metalworking fluid product that allows you to maximise the efficiency of your processes.

Millers Oils metalworking fluids are formulated to deliver a clean, untarnished metal surface and to prolong the useful life of cutting tools.

MILLGRIND

Millgrind fully synthetic water based solutions.

APPLICATION: To be used diluted with water where a fully synthetic product is preferred or required. Products suitable for general purpose grinding and an anti-cobalt leaching product suitable for carbide grinding.

FEATURES AND BENEFITS:

- Forms a stable solution in all water types.
- Excellent wheel flushing capabilities.
- Good corrosion protection of machine and workpiece.
- Nitrite and phenol free, supporting compliance with H&S regulations and legislation.

MILLCOOL

An extensive range of high performance metalworking and grinding fluids suitable for engineering applications that require high performance micro-emulsions, semi - and fully synthetic water-based biostable solutions.

APPLICATION: These machine tool coolants are used in dilution for the cutting of all types of metal. They are particularly suitable for the latest machining techniques. Careful choice of the correct grade of Millcool for each application will pay dividends in terms of increased performance.

FEATURES AND BENEFITS:

- Correct choice of product ensures low foaming in all water types.
- Selected products are chlorine-free. Certain engineering processes or the disposal of fluids may require this.
- Nitrite and phenol free, supporting compliance with H&S regulations and legislation.
- Good tramp oil rejection to allow easy removal of surface oil.
- Excellent biological and fungal stability provides good sump life.
- Good anti-corrosion properties protect valuable machinery.
- Excellent detergency – no sticky residues on tooling and gauges.
- Low odours during operation ensures operator acceptability.



The power of partnership

Thanks to our long-term partnership with QUAKER CHEMICAL we offer a truly comprehensive range of high quality engineering products. QUAKER adds an extensive range of metalworking fluids to our UK portfolio, including Rolls-Royce Approved metalworking cutting and grinding fluids, rust preventatives and cleaners, as well as the Quintolubric range of fire-resistant and biodegradable hydraulic oils.



NEAT METALWORKING FLUIDS

MILLICUT

The Millicut range is an extensive group of neat cutting oils utilising additive technologies to give optimum performance levels across a wide range of metallurgies, operations and cutting tool severities. The range consists of biodegradable, chlorine and chlorine-free products.

APPLICATION: Suitable for a wide range of metal cutting applications as diverse as internal broaching, thread cutting of titanium alloys, turning of brass components and vertical and horizontal honing.

To find the correct product for your applications, contact our technical department directly.

FEATURES AND BENEFITS:

- A comprehensive range of viscosities, suitable for a diverse range of machining operations.
- Light viscosities ensure good honing penetration and cooling capabilities.
- Improves tool life and cutting performance.
- Provides excellent finish.
- Chlorine-free products meet specific environmental requirements and disposal criteria.
- Anti-mist additives improve conditions for operators.
- Products with multi-metal passivators for multi-purpose use.
- Biodegradable fluids for applications where environmental issues are a concern.

TAPPING PRODUCTS

TAPPING FLUID & COMPOUND

Both the fluid and compound are enhanced by the inclusion of highly effective extreme pressure (EP) agents and lubricity enhancers.

APPLICATION: Both types are used for drilling, thread cutting and tapping applications in engineering. The fluid can also be used for reaming.

FEATURES AND BENEFITS:

- Reduces tap wear.
- The 'searching' qualities of the fluid give excellent penetration.
- EP additives provide clean thread cuts and no tearing.
- High lubricity increases rate of cuts and improves tool life.

DRAWING, PRESSING & FORMING LUBRICANTS

MILLDRAW & MILLFORM

A range of drawing, pressing and forming lubricants with additive treatment levels for use across a wide spectrum of engineering applications on many forms of metal.

APPLICATION: Used primarily for: fine blanking, stamping, cold forging, and drawing applications including can, tube and bar.

FEATURES AND BENEFITS:

- Comprehensive range meets most metal requirements – multi-metal suitability.
- Enhanced tool life.
- Good lubricity provides good component surface finish.
- Ease of application and highly economical in use.
- Chlorine-free products to meet specific environmental and disposal criteria.
- Products available with multi-metal passivators for multi-purpose use.
- Biodegradable fluids for applications where environmental issues are a concern.
- Water washable products available where the next operational requirement is 'oil free'.

SPARK EROSION FLUIDS

Dielectric Fluid 868, Erosol 3D and Hobby Fluid are light viscosity low aromatic hydrocarbons. Hobby Fluid meets the purity requirement of FDA 21 CFR 178.3620(b).

APPLICATION: Suitable for spark erosion electro-discharge machines. Providing good metal removal rates with a high resistance to oxidation.

FEATURES AND BENEFITS:

- Low odour improves conditions for operators.
- Good cooling properties to aid cutting.
- Good profile sharpness for fine moulds.
- Filterable to provide long service life.



New processes demand new solutions and, where required, we work closely with customers to develop bespoke fluids and lubricants for very specific applications.

Engineering Products - METALWORKING

Since 2000, we've worked successfully with Quaker Chemical as an approved reseller*. Alongside our own high quality engineering products, we supply Quaker metalworking cutting and grinding fluids, and the Quintolubric hydraulic fluid power range.



QUAKER CHEMICAL

METALWORKING CUTTING AND GRINDING FLUIDS

Quaker cutting and grinding fluids include Rolls Royce Aerospace approved products to CSS 127, 129, 130, 131 specifications. The range consists of heavy duty biostable emulsions, micro-emulsions, semi-synthetics and synthetic solutions.

APPLICATION: All products are water dilutable for use within a range of performance levels and applications including broaching, hobbing, tapping, creep feed grinding, mapal reaming, turbine machining, gun drilling, milling, turning and grinding, across a wide range of metals and water types.

FEATURES AND BENEFITS:

- Aerospace and OEM approvals, important in gaining certain contracts.
- Excellent biological and fungal stability providing a long sump life.
- Excellent lubricity and anti-corrosion package, protecting machinery and extending tool life.
- Chlorine, phenol, nitrite and secondary amine free, supporting compliance with H&S regulations and disposal requirements.
- Excellent detergency, no sticky residues on machines or gauges.
- Products suitable for all water types, extremely low foaming.

QUINTOLUBRIC HYDRAULIC FLUIDS

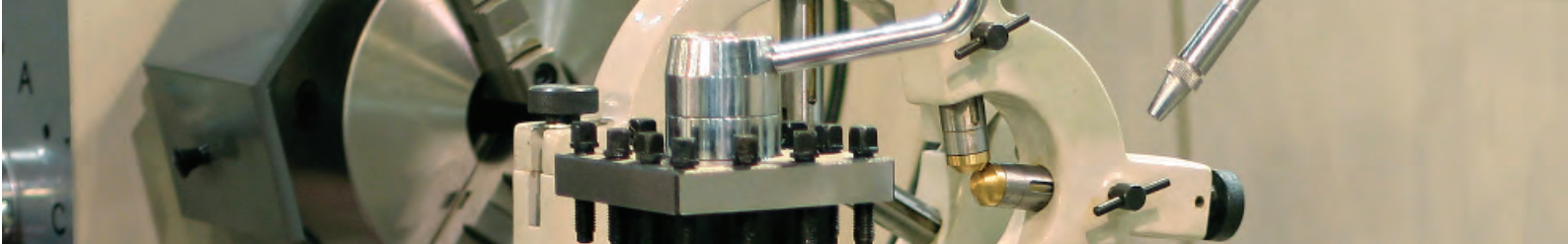
A range of hydraulic fluids consisting of HFD-U synthetics, HFC water glycols, and HFA water additive types. The HFD-U hydraulic fluids are fully synthetic, fire-resistant and biodegradable. Millers Oils stock and supply HFD-U products; HFC & HFA types are available on request.

APPLICATION: These hydraulic fluids are highly suitable for a wide range of operations which demand fire resistance and biodegradability without compromising hydraulic system operation. Widely used in steel, non-ferrous, mining, automotive and power generation industries where fire resistance is a requirement. Quaker is often recommended by OEMs as the preferred supplier of HFD-U fluids.

FEATURES AND BENEFITS:

- Factory mutual certified fire resistance properties.
- Biodegradable and non-toxic to aquatic life, therefore safe for use in environmentally sensitive areas.
- Synthetic formulations provide excellent hydraulic fluid performance.
- Contain no hazardous ingredients and are therefore acceptable to the environment and the user.

* Quaker Chemical partnership applies to the UK only.



RUST PREVENTIVES & DEWATERING FLUIDS

A range of rust preventives and dewatering fluids including light viscosity types with short-term shelf life through to waxy type long-term products. The range also includes water extendable products which are free from organic solvents.

APPLICATION: For the protection of metals, depending upon the protection required, dewatering capabilities and flash point requirements. Use by careful selection from our extensive range.

FEATURES AND BENEFITS:

- The dry film, longer term products do not attract dirt.
- Oil based, high flash point products can be used where an oil residue is required.
- The pure dewatering products are inter-operational for short term protection.
- Waxy type products are suitable for longer term outdoor protection.
- Solvent-free water extendable emulsions are more acceptable for the environment and the user.



QUENCH OILS

MILLQUENCH

A range of quench oils consisting of ISO 22 viscosity-based mineral oils using high quality solvents and selected additives.

APPLICATION: Used as quenching mediums to improve the depth of metal hardness. Each product in the range provides a different treatment level, ranging from normal speed through to accelerated speed. Note: our technical team can provide quench curves on request.

FEATURES AND BENEFITS:

- Cost effective, offering maximum economy in use.
- Uniform quench characteristics over a range of operating temperatures.
- Consistent performance.
- Good oxidation resistance and thermal stability for long service life.

ENGINEERING SUNDRIES

A selection of anti-foam agents, boosters and system cleaners for high performance across a range of metalworking and machining applications.

MILLICLEAN 6211

Low foaming, high performance, biodegradable, alkaline cleaning and de-burring solution. Suitable for cleaning ferrous and copper based metals, ultrasonic, spray and dip applications. **NOTE:** Not suitable for use on aluminium based metals.

ANTIFOAM 2048 AM

A non-silicone based anti-foam, for use in water soluble metalworking and associated industrial fluids. Good foam control, therefore used at extremely low treatment rates.

ANTIFOAM HW 2217

An effective de-foam for water based synthetic and semi-synthetic cutting fluids. This product has no effect on the emulsion characteristics of the cutting fluids.

MILLCOOL EP BOOSTER 2405

An emulsifiable chlorine-free performance additive to be used where a one-off performance boost is required in water based metalworking fluids.

SYSTEM CLEANER 2208

Specifically designed system cleaner to be used where aqueous solutions of machining and grinding fluids are used. Used as a tankside addition or before a full clean out as a combined bactericide-fungicide to ensure biological cleanliness. Use at 2% to 10% concentration depending on the degree of contamination present.

SYSTEM CLEANER 2338

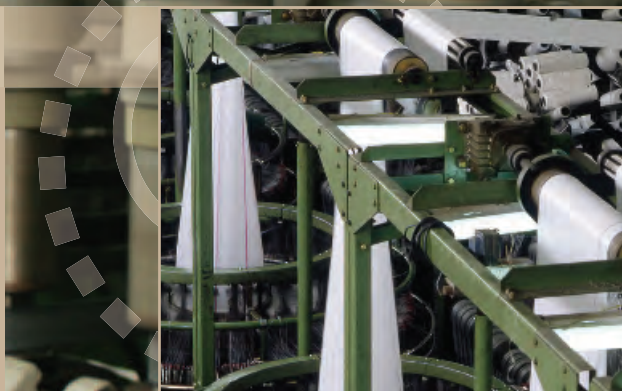
A highly effective system cleaner to be added as a biological control or prior to a sump clean out. Use at low concentration levels of 0.5% treatment rate. This product is excellent at controlling bacteria levels in the machine sump.

SYSTEM TREATMENT 2463

A system treatment additive for use in water based metalworking fluid applications where fungal and bacterial contamination have occurred and are causing issues for the operator. Low treatment rates of 0.1% to 0.3% make this system treatment highly cost effective, particularly when used for large engineering applications.

Textile lubricants

Millers Oils represent the very latest in lubrication and additive technology, guaranteeing exceptional wear protection, scourability and protection against corrosion.



From our beginnings in the heartlands of the UK's textile industry, Millers Oils has a long history as a supplier of high quality machine oils to leading manufacturers, at home and internationally. Today, we offer customers a new generation of semi-synthetic circular knitting machine oils tried, tested and proven in the most demanding contexts.

SCOURABLE KNITTING OILS

KNITTING OIL

ISO 22, 32, 46

A range of premium quality, high performance knitting oils utilising unique performance enhancing additives.

APPLICATION: Use as an emulsifiable needle and knitting machine lubricant.

FEATURES AND BENEFITS:

- Easily emulsified and scoured to remove process contamination.
- Inhibited against multi-metal corrosion for machine compatibility.
- Synthetic lubricity modifier leading to low friction losses.
- Highly resistant to heat degradation for continuous textile production equipment operating at high temperatures.

Note: Products should be stored under cover. Avoid extremes of temperatures and protect from frost.

KAYSTOL

A range of high quality, solvent-refined mineral oils blended with emulsifying agents.

APPLICATION: Used for knitting and general textile machinery where the optimum viscosity is required. The range extends from low viscosity flushing oils to higher viscosity 100 cSt machinery lubricants.

FEATURES AND BENEFITS:

- Good scourable properties to remove process contamination.
- Good oxidation resistance to allow continuous textile production at high temperatures.

Note: Products should be stored under cover. Avoid extremes of temperatures and protect from frost.

NON-SCOURABLE OILS

SEWING MACHINE OIL 32, WATER WHITE OIL

Synthetic oils developed specifically for needle lubrication where a non-scourable oil is required.

APPLICATION: Used for a variety of industrial and domestic knitting and sewing machine applications.

FEATURES AND BENEFITS:

- Water white, non-staining.
- Outstanding oxidation stability providing long fluid life.
- Reduced misting improves conditions for operators.

TECHNICAL WHITE OILS

MILLAWHITE RANGE

A range of premium quality highly refined technical white mineral oils which meet the purity requirements set out by FDA 21 CFR178.3620(b).

APPLICATION: : Use in process type applications such as textile lubrication requiring a water white technical white mineral oil.

FEATURES AND BENEFITS:

- Excellent lubrication for optimum performance.
- Virtual water white in appearance, therefore non-staining.



MOULD RELEASE OILS

A broad range of mould release oils for effective release from concrete, clay, brick and block moulds. Suitable for wood, metal, rubber or plastic moulds. The range includes oil, emulsion, solvent, gas oil and biodegradable oils.

APPLICATION: Use as received according to the application or mixed as an emulsion for specific mould types. Apply by brush, roller or spray as desired.

FEATURES AND BENEFITS:

- Biodegradable oils available for environmentally sensitive areas.
- Heavy duty oils suitable for heavy concrete and breeze block work.
- Emulsion types available for wood and absorbent moulds.
- Sprayable low-odour, solvent-free products for intricate mould work.



PROCESS OILS

Process oils are used in a wide range of manufacturing industries as plasticisers and extenders, becoming an integral part of a formulated finished article or used as an aid in a production process. Process oils are special mineral oil fractions selected for their specific solvency and compatibility properties. They range from highly paraffinic through predominantly naphthenic to aromatic in nature and are available in various molecular weights which broadly correspond with their viscosities.

TYPICAL APPLICATIONS:

Rubber Articles

- Automotive tyres, hoses, weatherstrips, mats, profiles.
- Artificial sports and playground surfaces, flooring, carpet underlay.
- Industrial belting, impact damping buffers, shoe sole production.

Printing Inks

- As a carrier and binder for pigments .

Thermoplastics

- Extenders and plasticisers for 'hot applied' road marking paints and anti-skid surface dressings.

Adhesives & Sealants

- Extenders for a wide range of packaging adhesives and sealants used in the building and construction industries.
- Extenders and plasticisers for bitumastic road repair and bridge joint preparations.
- Fluxing oil for bitumen based coatings.

Agriculture

- Dust suppressant for mineral handling .
- Anti-caking agents for blended fertilisers.

Food Industry

- Extenders conforming to FDA requirements for use in adhesives for food packaging and for the production of anti-foams used in coatings and the manufacture of paper and paperboard articles.



Technical Service

We offer a wide range of process oils off-the-shelf, however we can also create bespoke blends for specific applications. Contact our technical team to discuss your particular requirements.



Advanced Lubricants, Oils and Fuel Additives

FOR TECHNICAL SUPPORT, DATA SHEETS AND TO
FIND YOUR NEAREST MILLERS OILS STOCKIST
VISIT OUR WEBSITE: MILLERSOILS.CO.UK

Millers Oils Ltd
Brighouse, West Yorkshire HD6 3DP UK
Tel: +44(0)1484 713201 **Visit:** millersoils.co.uk



All products and information are reflective of the latest specifications at the time of going to print. The company reserves the right to change formulations and specifications without prior notice.

IND/ MAR 2015/ Issue 3.1/ 7537

