Safety Data Sheet

EC Regulation No. 1907/2006

ROCK OIL MAXSYN SLF Semi-Synthetic Cutting Fluid

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name

Maxsyn SLF

Application

Water-extendable metalworking fluid/lubricant concentrate which is normally to be diluted in water prior to use (typical dilutions 3 - 10% in water). Refer to the supplier for further advice on suitability and dilution recommendations for specific applications.

Supplier

Rock Oil Company

PO Box 155, Warrington, England WA5 1SU.
Telephone No. (44) 01925 636191[UK Office Hours]
E-mail sales@rockoil.co.uk
24Hr Emergency No. +44 (0)1235 239 670 National Chemical Emergency Centre: only for immediate emergency response advice

2. HAZARDS IDENTIFICATION

This product is classified as Dangerous for Supply according to EC Dangerous Substances/Preparations Directives - Xi: Skin and Eye Irritant

Health and Safety

The undiluted product is strongly irritating in the eye with a potential to cause corneal injury if treatment is not prompt. In contact with the skin, the undiluted product may cause irritation which could become more intense if not promptly removed or if contact is frequent or prolonged. Prolonged or repeated contact with overstrength emulsions may lead to defatting of the skin and/or slight irritation. For further information, refer to Section 11.

Environmental

The product contains mineral oil which will not readily biodegrade in anaerobic conditions and therefore can be environmentally persistent. For further information, refer to Section 12.

Special Hazards After Use

During use, metalworking emulsions may become contaminated, for example by metal particles and metal salts, other lubricants, and microbiological contaminants. These may increase the irritancy of the emulsions, and in some cases (e.g. contamination by chromium, cobalt and nickel) may be capable of inducing additional hazards. There is a possibility that small amounts of nitrosamines may be formed if sodium nitrite is added to the product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains highly refined mineral base oils, emulsifiers and corrosion inhibitors, with coupling agents and additional performance additives.

Components Include:	EINECS	Wt %	EC Classification
Tall oil acids, compounds with ethanolamine and diethanolamine	268-640-5 + 263-157-6	5-10	Xi; R36/38
Rapeseed oil, reaction products with diethanolamine	269-125-8	5-10	Xi; R36/38
Boric acid, compounds with 2-aminoethanol - and 2,2'-aminobis[ethanol]	247-421-8 + 267-886-0	10-20	Xi; R36/38
3,3'-methylenebis[5-methyloxazolidine]	266-235-8	1-5	C; R21/22-34-52
3-iodo-2-propynylbutylcarbamate	259-627-5	<1	Xn-N; R20/22-41-50

Note: The above components may not necessarily constitute the complete composition of the product.

Refer to Section 16, Other Information, for full text of R Phrases

4. FIRST-AID MEASURES

	Symptoms	Treatment
Eye Contact	Irritation and stinging - severe with the undiluted material	Immediately wash eye thoroughly with plenty of clean water for at least 15 minutes, ensuring eyelids are held open. For contact with undiluted fluid, obtain prompt medical attention. It is advisable to obtain medical advice before removing contact lenses. For contact with diluted fluid, obtain medical attention if irritation or redness persists, or as an additional precaution.
Skin Contact	Irritation, skin drying/defatting	Although emergency first aid treatment is not usually required, undiluted product should be washed thoroughly from the skin with soap and water without delay. Remove contaminated clothing. Wash/launder contaminated clothing before re-use. If irritation persists, obtain medical advice. If the use of metalworking emulsions gives rise to irritation or skin rashes, possible contamination and/or usage conditions may need to be investigated.
Inhalation	Irritation of respiratory tract from exposure to fumes and mists	For effects produced by over-exposure, move to fresh air. If effects persist, obtain medical advice.
Ingestion	Irritation of mouth and throat, nausea, drowsiness	Do not induce vomiting. Wash out mouth with water and obtain medical attention. Milk or water to drink may be beneficial (do not give anything to drink to an unconscious person). Treat symptomatically. If the product is aspirated into the lungs (e.g. during vomiting), send to hospital immediately. Show a copy of this data sheet to the doctor.

Notes for Doctors

Treat symptomatically - advisable not to induce vomiting due to the risk of aspiration and it is not usually necessary unless a large amount has been ingested or it has been contaminated with another product. Gastric lavage under supervised medical conditions can be carried out if necessary.

5. FIRE-FIGHTING MEASURES

Flammability

Low fire risk due to high flash point and low volatility. High energy sources (such as open flames) may induce combustion of the undiluted product. The diluted emulsions do not support combustion due to the high water content.

Extinguishing Media

Small Fires: Foam, dry powder, carbon dioxide, sand or earth.

Large Fires: Foam or water fog - DO NOT USE WATER JETS.

Products of Combustion

Combustion can produce a variety of compounds including: oxides of carbon; oxides of nitrogen; water vapour; unburnt hydrocarbons; partially oxidised organic compounds and other unidentified organic and inorganic compounds. Some of these compounds may be toxic.

Special Fire Hazards

Large surface areas exposed to air/oxygen (e.g. oil-soaked rags, paper or absorbed spillages) may be easily ignited and these should be cleared up at once.

Special Fire-Fighting Procedures

Firefighters should wear self-contained breathing apparatus. Do not spray water directly into storage containers due to boilover danger. Water may be used to cool nearby containers/surfaces.

6. ACCIDENTAL RELEASE MEASURES

Contain spillage and prevent entry to drains or watercourses. Spillages can be slippery so affected areas should be thoroughly cleaned afterwards.

Safety Precautions

Wear suitable protective clothing, particularly eye protection. Refer to Section 8 for further details.

Small Spills

Soak in absorbent granules, sand or earth and collect solids into a suitable, marked container for proper disposal. Thoroughly clean spillage area as spillages can be slippery.

Large Spills

Bund the area using absorbent granules, booms, sand or earth. Temporarily seal exposed drainage outlets. Reclaim liquid directly or soak in an absorbent medium, and transfer to a suitable, marked container for proper disposal.

Disposal of Spillage

Disposal must be in accordance with local regulations and (in the UK) the Environmental Protection. Act 1990. Refer to Section 13 for further details.

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes - wear suitable eye protection when handling the undiluted product. Avoid skin contact with the undiluted product. The use of appropriate barrier and after-work creams may be beneficial.

Storage

Store in dry conditions protected from frost and elevated temperature. Store in original containers or in other mild steel or high density polyethylene containers which are closable and clearly labelled. Certain requirements of the Control of Pollution (Oil Storage)(England) Regulations 2001 may apply in England.

Additional Guidance

Metalworking fluids (MWFs) can create environmental, health and performance problems in use if not managed correctly - factors to be controlled include dilution, level of contamination, pH, fumes/misting, etc. The supplier can provide specific advice on dilution rates, and additional detailed advice on the control and maintenance aspects of MWFs. Other Industry/Government Agency guidance is also available - see Section 16.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

An occupational exposure limit for metalworking fluids (MWFs) has not been established. In the UK, the HSE recommends that exposure to emulsified metalworking fluid mists should be controlled to less than 1 mg/m3 (8hr TWA).

Notes

Oil and MWF mist determination. Primary Method: gravimetric collection on a 5µ low ash filter. Fluorometric and IR techniques are also available for mineral oil mists. Secondary Method: Detector tubes are available for mineral oil mist.

The product contains significant proportions of the following components which have published Occupational Exposure Limits

	40-60%: Mineral oil (limits for mists or aerosols)
EC Limit	No
UK WEL	Not assigned a WEL
Belgium VLEP	5mg/m3 8hr; 10mg/m3 15mins
Denmark	1 mg/m3 8hr
Finland	5 mg/m3 8hr
France VLM/VLE	
Germany MAK	5mg/m3
ACGIH/Italy	5mg/m3 8hr TWA; 10mg/m3 15mins
Spain VLA	5mg/m3 ED; 10mg/m3 EC
Sweden	1mg/m3 NGV
Australia	5mg/m3 TWA
S.Africa	5mg/m3 TWA; 10mg/m3 STEL

General Controls

General ventilation, safe working procedures and training should form the basis for exposure controls. Local forced extraction may be needed if mists, fumes or vapours are generated. Wash hands after use, before eating, drinking, or smoking, and before and after using the toilet. Contaminated clothing should be removed and laundered before re-use.

Personal Protective Equipment		**Type(s) to Consider**	**EN Standard(s)**
Eyes/ Face	Eye protection is recommended when handling the undiluted product or if there is a risk of splashing with the diluted product.	Chemical eye shield, spectacles or goggles.	166
Hands/ Skin	Impervious gloves are recommended when handling the undiluted product. Prolonged or repeated contact with diluted metalworking fluid emulsions is often unavoidable - the use of appropriate skin protective and reconditioning creams may be beneficial, and gloves should be considered whenever their use is practical and safe. Gloves should not have knitted wrists and/or open backs.	PVC, nitrile or neoprene having a breakthrough time >360 minutes against oil and hydrocarbons, or which are suitable for use with water-miscible metalworking fluids. Latex and butyl rubber are unsuitable. Consider mechanical/tear resistance if handling items which could damage the glove.	374-3
Respiratory Protection	Respiratory protection is not normally required. However, suitable respiratory equipment may need to be provided for those operations which generate vapour, mists or fumes and where exposure cannot be adequately controlled by local exhaust ventilation or other means.	Respiratory half-masks Types FFP2 or FFP3 giving protection against water and oil based mists and particulates.	149 or 405 (valved)

Other

EN345 safety boots (or EN347 working shoes) resistant to oils and hydrocarbons. Work overalls to protect against skin contact.

Environmental Controls

Suitable system design or appropriate controls should be in place to ensure that the product cannot discharge to drain, unless it is suitably treated to conform with local regulatory discharge standards.

NOTE: The above advice is based on and limited to our knowledge and experience of the product. It is the responsibility of the user to determine what particular controls and types of protective equipment are suitable and appropriate in relation to the specific conditions under which the product is used.

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9. PHYSICAL AND CHEMICAL PROPERTIES

The following are indicative values only

Appearance and State	Amber liquid
Odour	Mild characteristic
Flash Point	> 100ºC (Closed Cup, based on components)
Autoignition Temperature	> 150ºC (based on components)
Flammability Limits (% in air)	Not Established. Limits for mineral oil are in the range 1 - 10%.
Relative Density (@ 20 C)	0.97
Boiling Point/Range (C)	>100 (based on components)
Pour Point/Melting Point (C)	<0
Vapour Pressure	Very low (based on components; specific test data not determined)
Vapour Density (air = 1)	>1
Evaporation Rate (but.acetate=1)	<1 (based on components)
Kinematic Viscosity (@ 40 C)	No specific data. All hydrocarbon components are significantly >7 cSt.
Acidity/Alkalinity	Slightly alkaline
pH	9.4 @ 3%
Solubility In Water	Miscible to form a semi-translucent emulsion
Solubility In Solvents	Petroleum solvents
Water/Oil Partition Coefficient	No specific test data. Coefficient for mineral oil is greater than 3.

10. STABILITY AND REACTIVITY

Stability

This product is stable and unlikely to react in a hazardous manner under normal conditions of use.

Conditions to Avoid

Extremes of temperature (preferably, store between 5 and 30 ºC). Protect from frost. Do not store above 60ºC for prolonged periods in contact with aluminium-containing materials as there is a small possibility, in certain circumstances, that alkanolamines from compounds in the product could react with aluminium to release hydrogen gas.

Materials to Avoid

Strong oxidising agents (e.g. chlorates, peroxides); strong acids; products containing sodium nitrite. The product may soften some rubbers and other incompatible elastomeric sealing materials. Do not store in containers made from copper, aluminium or zinc.

Decomposition Products

Thermal decomposition can produce a variety of compounds, the nature of which will largely depend on the conditions bringing about decomposition. Incomplete combustion or thermal decomposition may be expected to generate such materials as: particulate matter and unburnt hydrocarbons; oxides of carbon; ammonia; oxides of nitrogen; oxides of boron; water vapour; partially oxidised organic compounds; and other unidentified organic and inorganic compounds.

11. TOXICOLOGICAL INFORMATION

Toxicological data is based on information on components and knowledge and experience of this and similar products.

Acute Toxicity

Ingestion — **Oral LD50:** > 2000 (mg/Kg rats)
The product is expected to have a low order of acute oral toxicity - ingestion is not regarded as a significant health hazard likely to arise in normal use. Swallowing significant quantities may cause discomfort, nausea, irritation of digestive tract, and diarrhoea. Aspiration into the lungs caused by vomiting or regurgitation following ingestion can be hazardous with possible resultant chemically induced pneumonia.

Dermal — **Dermal LD50:** > 2000 (mg/Kg rabbits)
Dermal toxicity is not regarded as a health hazard likely to arise in normal use - prolonged skin contact is unlikely to result in the absorption of harmful amounts.

Inhalation — **Inhalation LC50:** Not Established/No data
Due to its low volatility, the product is unlikely to give rise to vapours which would present a significant inhalation hazard at ambient temperatures. High temperatures or atomising systems may lead to generation of vapours, mists or fumes which could cause irritation to eyes and respiratory tract, and pulmonary irritation.

Corrosivity/Irritation

Eyes — Eye contact with the undiluted product may cause strong irritation and stinging. There may be a potential to cause corneal injury if treatment is not prompt. Dilute emulsions are expected to cause only slight transient irritation or redness.

Skin — The undiluted product in brief or occasional contact with intact skin can cause slight irritation which may become more intense if not promptly removed or if the skin is abraded or cut. Prepared emulsions are surface active and slightly alkaline, and prolonged or repeated contact with them, especially if the emulsions are over-strength, may cause defatting of the skin, slight irritation and dermatitis.

Respiratory — High temperature or atomising systems may give rise to vapours, mists or fumes which could irritate eyes and respiratory tract.

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11. TOXICOLOGICAL INFORMATION

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Sensitisation
Not a sensitizer. [Note: the susceptibility of individuals with respect to allergic responses to different chemicals can vary considerably]

Chronic Toxicity
Repeated exposures to high concentrations of oil mists may cause a chronic inflammatory reaction of the lungs and give rise to a benign form of pulmonary fibrosis. This risk can be avoided by ensuring proper controls to minimise exposure to mists and fumes within the suggested control limits (see Section 8).

Carcinogenicity
No carcinogenic effects are anticipated with this type of product during normal use. All mineral oils incorporated in the product have been highly refined. However, if sodium nitrite (or other nitrosatable material) is added to the product, there is a possibility that, over a period of time, this could react with diethanolamine or diethanolamine compounds in the product to form small amounts of potentially carcinogenic nitrosamines.

Mutagenicity
There are no reports of mutagenic effects attributable to the use of this type of product.

Reproductive Toxicity
There are no reports of reproductive effects attributable to the use of this type of product.

Additional Notes
Contamination and degradation of emulsions during use can affect the above properties, and in some cases may introduce additional hazards.

12. ECOLOGICAL INFORMATION

Ecological data is based on information on components and knowledge and experience of this or similar products

Mobility
The product will disperse as an emulsion in water. If released on land, small quantities will be absorbed in the upper soil layers where biodegradation may take place. Larger quantities may penetrate into anaerobic soil layers where mineral oil and some other organic compounds may persist. Many of the components have a high soil absorption coefficient which should help to prevent significant contamination of ground water. If it reaches the water table, the mineral oil could disperse as an emulsion if the emulsifiers in the product have also penetrated the soil layers.

Degradability and Persistence
The individual components range from readily to slowly biodegradable. The product contains mineral oil which has limited ready biodegradability when tested by methods CEC L-33-A-93 and OECD 301B. Mineral oil will biodegrade slowly in aerobic water and sediments, and is considered to be ultimately biodegradable, but it can be persistent in anaerobic conditions. Mineral oil loadings can impair the functioning of sewage treatment plants.

Bioaccumulative Potential
The product will disperse as an emulsion in water, and some components will solubilise in water. Mineral oil has a potential to bioaccumulate - its physical properties and slow rate of bio-degradation suggest that mineral oil could interfere with the normal functioning of ecological cycles, and a contaminated area could be slow to recover.

Aquatic Toxicity
The product is not expected to be highly toxic to aquatic life. Mineral oil is not considered toxic to aquatic life (LC50>1000mg/L), but has a potential to bioaccumulate. If released to water, the product will disperse as an emulsion and may deplete the oxygen supply to bottom dwelling organisms. There is a possibility that small amounts of nitrosamines may be formed with the nitrogen content in the water or in the presence of nitrites. The product contains a small amount of boron: water-soluble borates are widely distributed naturally in the soil and sea. Boron is an essential micronutrient for plants - but it is phytotoxic in higher concentrations.

Additional Notes
The product consists of components of low volatility which are not expected to be released to air in any significant quantities.

WGK Classification: 2 (VwVwS Annex 4)

13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, water courses, soil or drains. Ensure all means of disposal comply with national and regional regulations. These include: in the EC:- the Waste Framework Directive (75/442/EEC), Hazardous Waste Directive (91/689/EEC) and amendments/additions, Waste Oil Directives (75/439/EEC and 87/101/EEC); and in the UK:- the Environmental Protection Act 1990, Environment Act 1995 and Hazardous Waste Regulations 2005 and amendments. Note: it is the end-user's responsibility to determine the regulatory status of waste at the time of disposal.

Undiluted Product
Do not dispose of undiluted, untreated waste down the drains. The product may be incinerated in suitable equipment and under controlled conditions. Alternatively, the product can be disposed of via an authorised person/licensed waste disposal contractor. The product can also be diluted and treated as a diluted emulsion as below.

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13. DISPOSAL CONSIDERATIONS

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Diluted Product

Do not dispose of untreated emulsions down the drains. Dispose via an authorised person/licensed waste disposal contractor. Alternatively, emulsions can be treated in an appropriate effluent treatment facility (e.g. chemical splitting or ultrafiltration) to separate mineral oil and other components from the water phase. The clarified water phase may contain dissolved salts, surfactants, trace hydrocarbons, and other dissolved materials. It should not be discharged to drain without the approval of the appropriate local authority and without checking for compliance with issued consent conditions or other requirements. Further treatment may be required. The non-aqueous phase can be disposed of as for the undiluted product.

Contaminated Packs

Any special regulatory disposal status or provisions applicable to the product may also apply to empty containers or packaging if they contain, or are impregnated with, residual material.

14. TRANSPORT INFORMATION

UK Road	Not Regulated
ADR	Not Regulated
Sea Transport	Not Regulated
	Marine Pollutant: No
Air Transport	Not Regulated
UN Classification	Not Regulated
UN Number	Not Applicable
UN Pack Group	Not Applicable

15. REGULATORY INFORMATION

EC Classification Xi: Skin and Eye Irritant

Xi

Label Phrases R36/38: Irritating to eyes and skin.

S24/25: Avoid contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37: Wear suitable gloves. S60: This material and its container must be disposed of as hazardous waste.

Notes The above classification applies to the undiluted product as supplied. It may not apply when the product is diluted for use at the correct operating strength.

UK Regulations/ EC Directives The product is not known to be subject to any specific EC provisions or restrictions. The above classification needs to be considered when carrying out workplace risk assessments, such as (in the UK) those required by COSHH Regulations using the principles in the HSE's 'COSHH Essentials'.

16. OTHER INFORMATION

(1) Other materials should not be added to the product or emulsions unless recommended by the supplier. (2) Emulsions should be maintained at the recommended concentrations in order to minimise any health hazards. In particular, water evaporation can lead to an increase in concentration which may result in an increased likelihood of skin defatting and irritation. A refractometer can be used to give a convenient check of emulsion strength. (3) Minimise tramp oil and other contamination; remove metallic swarf or other debris from machines at frequent intervals. (4) During machining, metallic particles from workpieces or tools can contaminate emulsions. These may abrade the skin with a resultant increase in perceptibility to the inherent irritancy effects of the emulsion. (5) During machining, emulsions may become contaminated with certain metals which are present in the workpieces or tools. These may solubilise in the emulsions. Some of these contaminants (e.g. chromium, nickel and cobalt) are capable of inducing allergic skin reactions. Some may also introduce an increased risk to health if excessive exposure to mists occurs. (6) Proper procedures for regular draining and cleaning of machine tool coolant systems can help obtain optimum fluid performance and reduce bacterial spoilage.

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16. OTHER INFORMATION

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Full Text of EC R Phrases Used in This Safety Data Sheet

R Phrase	*Text*
20/22	Harmful by inhalation and if swallowed.
21/22	Harmful in contact with skin and if swallowed.
34	Causes burns.
36/38	Irritating to eyes and skin.
41	Risk of serious damage to eyes.
50	Very toxic to aquatic organisms.
52	Harmful to aquatic organisms.

UK Regulations

Health and Safety at Work etc. Act 1974, and relevant Statutory Provisions.
Management of Health and Safety at Work Regulations 1999.
Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 and subsequent amendments, plus associated Approved Supply List (L129), Codes of Practice and Guidance (L130 and L131).
Control of Substances Hazardous to Health Regulations 2002 (COSHH) and subsequent amendments.
Personal Protective Equipment at Work Regulations 1992.
Environmental Protection (Duty of Care) Regulations 1991.
Hazardous Waste Regulations 2005, and subsequent amendment Regulations.
Pollution Prevention and Control Act 1999 and Pollution, Prevention and Control Regulations 2000.
Control of Pollution (Oil Storage)(England) Regulations 2001.
Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations.
Landfill (England and Wales) Regulations 2002 and subsequent amendments.

UK HSE Publications

EH40 (revised annually): Occupational exposure limits.
Metalworking Fluids - Good Practice Reference Manual (Autumn 2002).
HS(G)53: Respiratory protective equipment: a practical guide for users.
HS(G)65: Successful Health and Safety Management.
HS(G)97: A step by step guide to COSHH assessment.
HS(G)207: Choice of skin care products for the workplace.
INDG132(L): Five steps to successful health and safety management.
INDG136(L): COSHH: a brief guide for employers.
INDG167: Health risks from metalworking fluids.
INDG168: Management of metalworking fluid.
INDG174: A short guide to the Personal Protective Equipment at Work Regulations 1992.
INDG215(L): Basic advice on first aid at work (free leaflet).
INDG233: Preventing dermatitis at work.
L1 [previously HS(R)6]: A Guide to the Health and Safety at Work etc. Act 1974.
L21: Management of Health and Safety at Work (Regulations and ACOP).
L5: COSHH Approved Codes of Practice: General COSHH ACOP; Carcinogens ACOP; Biological Agents ACOP.
MDHS14: General methods for the gravimetric determination of respirable and total inhalable dust.
MDHS84: Measurement of oil mist from mineral oil-based metalworking fluids.
Health Surveillance under COSHH: guidance for employers.
COSHH Essentials: easy steps to control chemicals (HSE on-line Internet version also available).
Respiratory protective equipment: legislative requirements and list of HSE approved standards and types of approved equipment.
Selecting Protective Gloves for Work with Chemicals (ISBN 0 7176 1790 4) (free).
EIS14: Skin creams and skin protection in the engineering sector (free leaflet).
INDG234(rev): Are you involved in the Carriage of Dangerous Goods by Road or Rail?
INDG353: Why do I need a safety data sheet?
INDG186: Read the label: how to find out if chemicals are dangerous.
INDG365: Working safely with metalworking fluids: a guide for employees (free leaflet, Autumn 2002).

EC Directives

1999/45/EC: Dangerous Preparations Directive, amendments and Adaptations to Technical Progress.
2000/39/EC: First list of indicative occupational exposure limit values.
2001/58/EC: Second Amendment to 91/155/EEC Safety Data Sheets Directive.
67/548/EEC: Dangerous Substances Directive, and subsequent Adaptations to Technical Progress.
75/439/EEC and 87/101/EEC: Directives on the disposal of waste oil.
75/442/EEC: Waste Framework Directive.
91/689/EC and subsequent amendments: Hazardous Waste Directive.
96/61/EC: Integrated Pollution Prevention and Control.
98/24/EC: Protection of the health and safety of workers from the risks related to chemical agents at work.
2000/532/EC: List of hazardous wastes (as amended by subsequent later Directives)
1999/31/EC: Landfill Directive

Additional Guidance and Information Publications

UK: Institute of Petroleum Code of Practice for Metalworking Fluids (Portland Press, http://www.portlandpress.co.uk).
UK: Optimising the Use of Metalworking Fluids - UK Environmental Technology Best Practice Programme (http://www.etbpp.co.uk).
U.S.A.: OSHA Metalworking Fluids: Safety and Health Best Practices Manual (http://www.osha.gov/SLTC/metalworkingfluids/metalworkingfluids_manual.html).
U.S.A.: Metal Removal Fluids: A Guide to Their Management and Control - Organization Resources Councelors Inc (ORC) in conjunction with ILMA, AAMA and others (http://www.orc-sac.com).

[Web site addresses are given for information, but are subject to change and cannot be guaranteed]

For additional advice regarding specific applications, refer to the product Technical Data Sheet or contact the supplier. The information on this Data Sheet relates only to the designated product when used for the purposes indicated. It may not be valid if the product is used for other purposes, in combination with other materials, or in any process. References may be made to regulations or standards relevant to use within the United Kingdom. Other national or local standards should be observed if the product is used outside the United Kingdom.

Revision Ref. EC/FRL990/360 [Date: 03/04/2006]
Revision Notes 360: Revisions in Sections S8 [UK Exposure Limits]; S15 [Non-EC Versions]; S16 [References]