LUBYSIL BCN CF 32
SAFETY DATA SHEET

1. Identification of the Substance & Company Undertaking

Product:	Lubysil BCN CF 32
Product Type/Use	Metalworking Oil
Supplier:	John Clayden & Partners (Lubysil) Ltd., 9, Frensham Road, Sweet Briar Industrial Estate, Norwich, Norfolk. NR3 2BT
Telephone:	01603 789924
Fax:	01603 417335

2. Composition/Information on Ingredients

Preparation Description:
Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO-extract according to IP346

Dangerous Components/Constituents:
Exposure limits to the following components. Highly refined mineral oil.

NAME	CAS	EINECS	Proportion	Hazard	R Phrase
Dioctyl Phosphonate	1809-14-9	217-315-6	5-10%	Xi	R38

Other Information:
See Section 16 'Other Information' for full text of each relevant Risk Phrase

3. Hazards Identification

EC Classification:
Not classified as Dangerous under EC criteria

Human Health Hazards:
No specific hazards under normal use conditions. Prolonged or repeated exposure may give rise to dermatitis. Used oil contain harmful impurities

Safety Hazards:
Not classed as flammable, but will burn.

Environmental Hazards:
Not classified as dangerous for the environment.

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Lubysil BCN CF 32 Cont/d.

4. First Aid Measures

Symptoms & Effects:
Not expected to give rise to an acute hazard under normal conditions of use.

Inhalation:
In the likely event of dizziness or nausea, remove casualty to fresh air. If symptoms persist, obtain medical attention.

Skin:
Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

Eyes:
Flush eye with copious amounts of water. If persistent irritation occurs, obtain medial attention .

Ingestion:
Do not induce vomiting. Wash out mouth with water and obtain medical attention.

Advice to Doctor:
Treat symptomatically. Aspiration into the lungs may result in chemical pneumonitis. Dermatitis may result from prolonged or repeated exposure. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential. There may be a risk to health where low viscosity products are aspirated into the lungs following vomiting, although this is uncommon in adults. Such aspiration would cause intense local irritation and chemical pneumonitis. Children, and those in whom consciousness is impaired, will be more at risk. Emesis of lubricants is not usually necessary, unless a large amount has been ingested, or some other compound has been dissolved in the product. If this is indicated, for example, when there is rapid onset of central nervous system depression from large ingested volume – gastric lavage under controlled hospital conditions, with full protection of the airway is required. Supportive care may include oxygen, arterial blood gas monitoring, respiratory support and if aspiration has occurred, treatment with corticosteroids and antibiotics. Seizures should be controlled with Diazepam, or appropriate equivalent drug.

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Lubysil BCN CF 32 Cont/d.

5. Fire Fighting Measures

Specific Hazards:
Combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

Extinguishing Media:
Foam and dry chemical powder. Carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media:
Water in jet. Use of halon extinguishers should be avoided for environmental reasons.

Protective Equipment:
Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. Accidental Release Measures

Personal Precautions:
Avoid contact with skin and eyes. Wear PVC, Neoprene or nitrite gloves. Wear rubber knee length safety boots and PVC jacket and trousers. Wear safety glasses or full face shield if splashes are likely to occur.

Environmental Precautions:
Prevent or spreading or entering into drains, ditches rivers by using sand, earth or other appropriate barriers. Inform local authorities if this cannot be prevented.

Clean Up Methods – Small Spillages:
Absorb liquid with sand or earth. Sweep up and remove to more suitable, clearly marked container for disposal in accordance with local regulations.

Clean Up Methods – Large Spillages:
Prevent spreading by making a barrier with sand, earth of other containment material. Reclaim liquid directly or in an absorbent. Dispose of as small spills.

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Lubysil BCN CF 32 Cont/d.

7. Handling & Storage

Handling:
Use local exhaust ventilation if there is risk of inhalation of vapours, mist or aerosols. Avoid prolonged or repeated contact with skin. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages. Cloth, paper and other materials that are used to absorb spills present a fire hazard. Avoid their accumulation by disposing of them safely and immediately. In addition to any specific recommendations given for controls of risks to health, safety and the environment, an assessment of risks must be made to help determine controls appropriate to local circumstances. Exposure to this product should be reduced as low as reasonably practicable. Reference should be made to the Health & Safety Executive's publication 'COSHH Essentials'.

Storage:
Keep in a cool, dry well-ventilated place. Use properly labelled and closable containers. Avoid direct sunlight, heat sources and strong oxidizing agents. The storage of this product may be subject to the Control of Pollution (Oil Storage) (England) Regulations. Further guidance may be obtained from the local environmental agency office.

Storage Temperatures:
0ºC Minimum. 50ºC Maximum.

Recommended Materials:
For containers or container linings, use mild steel or high density polyethylene

Unsuitable Materials:
For containers or container linings, avoid PVC

Other information:
Polyethylene containers should not be exposed ti high temperatures because of possible risk of distortion.

8. Exposure Controls, Personal Protection

Exposure Limits:

Substance	Regulations	Exposure Duration	Exposure Limits	Units	Notes
Oil mist, mineral	EH 40 2005	TWA	5	mg/m³	
	EH 40 2005	STEL	10	mg/m³	

EH 40 2005 Health & Safety Executive EH40; Occupational Exposure Limits.

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Lubysil BCN CF 32 Cont/d.

Other Exposure Information:
Guidance valves for metalworking fluid exposure limits have been released by the HSE and are contained within 'Working Safely with Metalworking Fluids'.
Neat Oil metalworking fluid – guidance value of 3 mg/m³
Water mix metalworking fluid – guidance value of 1 mg/m³

Exposure Controls:
The use of personal protective equipment is only one aspect of an integrated approach to the Control of Substances Hazardous to Health..

The Management of Health & Safety at Work Regulations 1992 require employers to identify and evaluate the risks to health and to implement appropriate measures to eliminate or minimise those risks. The choice of personal protective equipment is highly dependent upon local conditions, e.g. exposure to other chemical substances and micro-organisms, thermal hazards, (protection from extremes of cold and heat), electrical hazards, and appropriate degree of manual dexterity required to undertake an activity. Whilst the content of this section may inform the choice of personal protective equipment used, the limitations of any information which can be provided must be fully understood, e.g. personal protective equipment chosen to protect employees from occasional splashes maybe entirely inadequate for activities involving partial or complete immersion. If the levels of oil mist or vapour in air are likely to exceed the occupational exposure then consideration should be given to the use of local exhau7st ventilation to reduce personal exposure.

The choice of personal protective equipment should only be undertaken in the light of a full risk assessment by a suitably qualified competent person (eg. a professionally qualified occupational hygienist). Effective protection is only achieved by correctly fitting and well maintained equipment and employers should ensure that appropriate training is given. All personal protective equipment should be regularly inspected and replaced if defective. Reference should be made to HSE's publication Methods for the Determination of Hazardous Substances (MDHS) 84 – Measurement of oil mist from mineral based metalworking fluids. Measurement of an employee's exposure to oil vapoutr may be supplemented through the use of stain tubes. In the first instance, further guidance may be obtained through HSE's publication 'COSHH' - a brief guide to the regulations (INDG 136) (rev 1).

Respiratory Protection:
At standard temperature and pressure, the Occupational Expose Standard for oil vapour is unlikely to be exceeded. Care should be taken to keep exposure below applicable occupational exposure limits. If this cannot be achieved, use a respirator fitted with an organic vapour cartridge combined with a particulate pre-filter should be considered. Half masks (EN149) or valved half masks (EN405) in combination with type A2 (EN141) and P2/3 (EN143) pre-filters may be considered.

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Lubysil BCN CF 32 Cont/d.

Hand Protection:
Chemical protective gloves are made from a wide range of materials, but there is no single glove material (or combination of materials) which gives unlimited resistance to any individual or combination of substances or preparations. The extent of the breakthrough time will be affected by a combination of factors which include permeation, penetration, degradation, use pattern (full immersion, occasional contacts) and how the glove is stored when not in use. Theoretical maximum levels of protection are seldom achieved in practice and the actual level of protection can be difficult to assess. Effective breakthrough time should be used with care and a margin of safety should be applied. HSE guidance on protective gloves recommends a 75% safety factor to be applied to any figures obtained in a laboratory test. Nitrile gloves may offer relatively long breakthrough times and slow permeation rates. Test data, e.g. breakthrough data obtained through test standard EN374-3: 1994 are available from reputable equipment suppliers. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves hand must be washed and dried thoroughly. A non-perfumed moisturiser should be applied.

Eye Protection:
Goggles conforming to a minimum standard of EN 166 345B should be considered if there is a possibility of eye contact with the product through splashing. Higher rated eye protection must be considered for highly hazardous operations or work areas. For example, employees involved in metalworking operations such as chipping, grinding or cutting may require additional protection to avert injury from fast moving particles or broken tools.

Body Protection:
Minimise all forms of skin contact. Overalls and shoes with oil resistant soles should be worn. Launder overalls regularly.

Environmental Exposure Controls:
Minimise release to the environment. An environment assessment must be made to ensure compliance with local environmental legislation.

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Lubysil BCN CF 32 Cont/d.

9. Physical & Chemical Properties

Colour	Yellow
Physical State	Liquid at ambient temperature
Odour	Characteristic mineral oil
pH Value	Data not Available
Vapour Pressure	Expected to be less than 0.5 Pa @ 20ºC
Initial Boiling Point	Expected to be above 280ºC
Solubility in Water	Negligible
Density	.886 kg/m³ @ 15ºC
Flash Point	210ºC (COC)
Flammable Limits – Upper	10% (V/V) (typical)
Flammable Limits – Lower	1% (V/V) (typical)
Auto-Ignition Temperature	Expected to be above 320ºC
Kinematic Viscosity	32mm²/s @ 40ºC
Evaporation Rate	Data not available
Vapour Density (air=1)	Greater than 1
Partition co-efficient, n-octanol/water	Log Pow expected to be greater than 6
Pour Point	Data not available.

10. Stability & Reactivity

Stability:
Stable

Conditions to avoid:
Extremes of temperature and direct sulight

Materials to Avoid:
Strong oxidizing agents

Hazardous Decomposition Products:
Hazardous decomposition products are not expected to form during normal storage

11. Toxicological Information

Basis for Assessment:
Toxicological data have been determined specifically for this product. Information given is based on a knowledge of the components and toxicology of similar products.

Acute Toxicity – Oral:
LD50 expected to be > 2000 mg/kg

Acute Toxicity – Dermal:
LD50 expected to be > 2000 mg/kg

Cont/d….

Lubysil BCN CF 32 Cont/d.

Acute Toxicity – Inhalation:
Not considered to be an inhalation hazard under normal conditions of use.

Eye Irritation:
Expected to be slightly irritating

Skin Irritation:
Expected to be slightly irritating

Respiratory Irritation:
If mists are inhaled, slight irritation of the respiratory tract may occur.

Skin Sensitisation:
Not expected to be a skin sensitizer

Carcinogenicity:
Product is based on mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Other components are not known to be associated with carcinogenic effects

Mutagenicity:
Not considered to be a mutagenic hazard.

Reproductive Toxicity:
Not considered to be toxic to reproduction.

Other Information:
Prolonged and/or repeated contact with this product can result in defatting of the skin, particularly at elevated temperatures. This can lead to irritation and possibly dermatitis, especially under conditions of poor personal hygiene. Skin contact should be minimised. High pressure injection of product into the skin lead to local necrosis if the product is not surgically removed. Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may prevent risks to health & the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible.

12. Ecological Information

Basis for Assessment:
Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and ecotoxicology of similar products.

Cont/d….

Lubysil BCN CF 32 Cont/d.

Mobility:
Liquid under most environmental conditions. Float on water. It enters soil it will absorb to soil particles and will not be mobile.

Persistence/Degradability:
Not expected to be readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

Bioaccumulation:
Contains components with the potential to bioaccumulate.

Ecotoxicity:
Poorly soluble mixture. May cause physical fouling of aquatic organisms. Product is expected to be practically non-toxic to aquatic organisms, LL.EL50>100mg/1. (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less tan mg/1.

Other Adverse Effects:
Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities.

13. Disposal Considerations

Waste Disposal:
Recycle or dispose of in accordance with prevailing regulations, with a recognised collector or contractor. The competence of the contractor to deal satisfactorily with this type of product should be established beforehand. Do not pollute the soil, water or environment with the waste product.

Product Disposal:
As for waste disposal

Container Disposal:
Recycle or dispose of in accordance with the legislation in force with a recognised collector of contractor.

Cont/d….

Lubysil BCN CF 32 Cont/d.

14. Transport Information

Not dangerous for transport under ADR/RID, IMO and IATA/ICAO regulations

15. Regulatory Information

EC Symbols	None
EC Risk Phrase	Not classified
EC Safety Phrase	Not Classified
EINECS	All components listed or polymer exempt
TSCA (USA)	All components listed

National Legislation:

Environmental Protection Act 1990 (as amended)
Health & Safety at Work Act 1974
Consumers Protection Protection Act 1987
Control of Pollution Act 1974
Environmental Act 1995
Factories Act 1961
Carriage of Dangerous Goods by Road & Rail (Classification, Packaging & Labelling) Regs.
Chemicals (Hazard Information & packaging for Supply) Regulations 2002.
Control of Substances Hazardous to Health Regulations 1994 (as amended)
Road Traffic (Carriage of Dangerous Substances in Packages) Regulations
Merchant Shipping (Dangerous Goods & Marine Pollutants) Regulations
Road Traffic (Carriage of Dangerous Substances in Road Tankers in Tank Containers) Reg.
Road Traffic (Training of Drivers of Vehicles Carrying Dangerous Goods) Regulations
Reporting of Injuries, Diseases and Dangerous Occurences Regulations
Health & Safety (First Aid) Regulations 1981
Personal Protective Equipment (EC Directive) Regulations 1992
Personal Protective Equipment at Work Regulations 1992

Packaging & Labelling:
Safety data sheet available for professional user on request.

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Lubysil BCN CF 32 Cont/d.

16. Other Information

References:
GUIDANCE NOTES
UK Chemical Regulatory Atlas, An Overview of how to guide your chemical through to regulatory compliance (DTI).
HSG71 The storage of packaged dangerous substances.
EH/40 Occupational Exposure Limits
EH/58 The Carcinogenicity of Mineral Oils
MS24 Health Surveillance of occupational skin disease
HSG 53 The selection, use & maintenance of respiratory protective equipment: A Practical Guide.
HSG206 Cost & effectiveness of chemical protective gloves for the workplace: Guidance for Employers & Health & Safety specialists.
L74 First Aid at Work: Approved Code of Practice & Guidance
HSG136 Workplace transport safety: guidance for employers.
INDG234 (rev) Are you involved in the Carriage of Dangerous Goods by Road or Rail.
OTHER LITERATURE
Concawe Report 3/82 Precautionary Advice on the Handling of Used Engine Oils
Concawe Report 86/69 Health Aspects of Worker Exposure to Oil Mists
Concawe Report 01/97 Petroleum Products – First Aid Emergency & Medical Advice
Concawe Report 01/53 Classification and labelling of petroleum substances according to the EU dangerous substances directive (Concawe recommendations August 2001)
Concawe Report 01/54 environmental classification of petroleum substances summary data and rationale.
Concawe Report 5/02 amended safety data sheet directive (2001/58/EC)
Department of the Environment – Waste Management – The Duty of Care – A Code of Practice
Concawe, Boulevard du souverain 165 B – 1160 Brussels, Belgium
www.concawe.be

RESTRICTIONS
This product must not be used in applications other than recommended without first seeking the advice of the LUBYSIL Technical Department.

List of R Phrases in Section 2:
R38 Irritating to Skin

Further Information:
This information is based on our current knowledge and is intended to describe the product for the purposes of Health & Safety and Environmental requirements only. It does not constitute a guarantee for any specific property of the product.