



EXCELLENCE IN LUBRICANTS

SAFETY DATA SHEET

Syngear PAO 220



EXOL LUBRICANTS LIMITED

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Syngear PAO 220

Product Code: G138

SECTION 1 IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF COMPANY/UNDERTAKING

1.1 Product Identifier Product Code	Syngear PAO 220 G138
1.2 Relevant identified uses of the substance or mixture and uses advised against	Gear lubricant. Do not use in any other application.
1.3 Company	Exol Lubricants Limited All Saints Road, Wednesbury, West Midlands, WS10 9TS
1.4 Emergency Telephone Number	+44 (0) 121 568 6800 (Monday – Friday 08.30 – 17.00 hrs GMT)
1.5 Other Information	Preparation Date: 21/07/2015

SECTION 2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture	Not classified as hazardous in accordance with CLP (EC 1272/2008) and DPD (1999/45/EC)
2.2 Label Elements	No labelling required
2.3 Other Hazards	None to mention

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures Hazardous Ingredients	EC No.	REACH Reg. No.	GHS Classification	DSD Classification	Conc. %
No hazardous ingredients present					

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	In the unlikely event of dizziness or nausea, remove casualty to fresh air. If symptoms persist, obtain medical attention.
Eyes	Flush eye with copious quantities of water. If persistent irritation occurs, 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. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.
Ingestion	Wash out mouth with water and obtain medical attention. Do not induce vomiting.
4.2 Most important symptoms and effects, both acute and delayed	No ill effects known
4.3 Indication of immediate medical attention and special treatment needed, if necessary	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 of 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 ischemia. 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.



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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.

SECTION 5 FIRE-FIGHTING MEASURES

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|-----|---|---|
| 5.1 | Extinguishing media | Foam and dry chemical powder. Carbon dioxide, sand or earth may be used for small fires only. |
| 5.2 | Specific hazards arising from the substance or mixture | 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. |
| 5.3 | Advice for fire-fighters | Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space. |

SECTION 6 ACCIDENTAL RELEASE MEASURES

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| 6.1 | Personal precautions, protective equipment and emergency procedures | Avoid contact with skin and eyes. Wear PVC, Neoprene or nitrile rubber 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. |
| 6.2 | Environmental precautions | Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Inform local authorities if this cannot be prevented. |
| 6.3 | Methods and material for containment and cleaning up | <p>Clean-up Methods - Small Spillages
Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.</p> <p>Clean-up Methods - Large Spillages
Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Dispose of as for small spills.</p> |
| 6.4 | Reference to other sections | Personal protective equipment: See section 8 |

SECTION 7 HANDLING AND STORAGE

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| 7.1 | Precautions for safe handling | Use local exhaust ventilation if there is risk of inhalation of vapours, mists 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 and Safety Executive's publication 'COSHH Essentials'. |
| 7.2 | Conditions for safe storage, including any incompatibilities | <p>Keep in a cool, dry, well-ventilated place. Use properly labelled and closeable containers. Avoid direct sunlight, heat sources, and strong oxidizing agents. The storage of this product maybe subject to the Control of Pollution (Oil Storage) (England) Regulations. Further guidance maybe obtained from the local environmental agency office.</p> <p>Storage Temperatures
0°C Minimum. 50°C Maximum.</p> <p>Recommended Materials
For containers or container linings, use mild steel or high density polyethylene.</p> <p>Unsuitable Materials
For containers or container linings, avoid PVC.</p> <p>Other Information
Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.</p> |
| 7.3 | Specific end use(s) | See Section 1 |

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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|-----|---------------------------|---|-------------------------|----------------------|
| 8.1 | Control parameters | | | |
| | Country | Substance | Long Term (8 Hours TWA) | Short Term (15 Mins) |
| | Europe (EH 40) | Oil mist, mineral | 5 mg/m ³ | 10 mg/m ³ |
| 8.2 | Exposure controls | The use of personal protective equipment is only one aspect of an integrated approach to the Control Of Substances Hazardous to Health. | | |



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The management of Health and 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, mechanical 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 may be 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 standards then consideration should be given to the use of local exhaust 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 (e.g. 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 oil-based metalworking fluids. Measurement of an employee's exposure to oil vapour 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(rev1)).

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, hands should 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.

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

Respiratory Protection: At standard temperature and pressure, the Occupational Exposure Standard for oil vapour is unlikely to be exceeded. Care should be taken to keep exposures below applicable occupational exposure limits. If this cannot be achieved, use of a respirator fitted with an organic vapour cartridge combined with a particulate pre-filter should be considered. Half masks (EN 149) or valved half masks (EN 405) in combination with type A2 (EN 141) and P2/3 (EN 143) pre-filters may be considered.

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

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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9.1 Information on basic physical and chemical properties

Typical Values

Grades:

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Units

**Appearance
Odour**

Clear Amber Liquid
Perceptible



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Odour Threshold		No data available
pH		Not applicable
Pour point/range	°C	-25
Initial boiling point and range	°C	Not determined
Flash point (COC)	°C	>180
Auto Flammability	°C	No data available
Upper/lower flammability or explosive limits		Not applicable
Vapour pressure	kPa (0.1 mm Hg)	No data available
Relative density	kg/m ³	0.843
Solubility - water	kg/m ³	Insoluble
Partition coefficient n-octanol/water		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Viscosity	mm ² /s	220.0 @ 40°C
	mm ² /s	26.0 @ 100°C
Evaporation rate		Not applicable
Vapour density		Not applicable
Explosive properties		Not applicable
Oxidising properties		None

9.2 Other Information None

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity	No dangerous reactions known
10.2 Chemical stability	Stable under normal conditions of use
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to avoid	Extremes of temperature and direct sunlight
10.5 Incompatible materials	Avoid contact with strong oxidising agents
10.6 Hazardous decomposition products	Hazardous decomposition products are not expected to form during normal storage.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	
- Oral	LD50 expected to be > 2000 mg/kg
- Inhalation	Not considered to be an inhalation hazard under normal conditions of use.
- Dermal	LD50 expected to be > 2000 mg/kg
Corrosivity/Irritation	
- Eye	Expected to be slightly irritating.
- Skin	Expected to be slightly irritating.
- Respiratory Tract	If mists are inhaled, slight irritation of the respiratory tract may occur.
Sensitisation	
- Skin	No evidence of sensitisation effects.
- Respiratory	No evidence of sensitisation effects.
Repeated-dose Toxicity	
No data available.	
Mutagenicity	
Not considered to be a mutagenic hazard.	
Carcinogenicity	
Components are not known to be associated with carcinogenic effects.	
Reproductive Toxicity	
Not considered to be toxic to reproduction.	

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity	Poorly soluble mixture. May cause physical fouling of aquatic organisms. Product is expected to be practically non-toxic to aquatic organisms, LL/EL50 >100 mg/l. (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 than 1 mg/l.
12.2 Persistence and 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.



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12.3 Bioaccumulative Potential	Contains components with the potential to bioaccumulate.
12.4 Mobility in Soil	Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
12.5 Results of PBT and vPvB Assessment	No PBT or vPvB chemicals present.
12.6 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.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Dispose in a regulated landfill site or other method for hazardous or toxic waste. Dispose of in accordance with local and national regulations.

SECTION 14 TRANSPORT INFORMATION

Not classified as hazardous for transport (ADR, RID, UN, IMDG, IMO, IATA/ICAO).

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	Supply regulations: DPD: Dangerous Preparations Directive; GHS: Globally Harmonised System of classification and labelling of chemicals; CLP: Classification, Labelling and Packaging regulations. Transport regulations: CDG: Carriage of Dangerous Goods regulations; ADR/RID/IMDG/ICAO/IATA regulations.
15.2 Chemical Safety Assessment	No formal chemical safety assessment has been carried out.

SECTION 16 OTHER INFORMATION

Fourth Issue
Third Issue February 2015: Changed use information
Second Issue: October 2012 Changed to new format
First version October 2012: Changed composition information