EXCELLENCE IN LUBRICANTS

SAFETY DATA SHEET

Cyclone PAO 150

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SAFETY DATA SHEET

Cyclone PAO 150

Product Code: C068

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

1.1	**Product Identifier**	Cyclone PAO 150
	Product Code	C068
1.2	**Relevant identified uses of the substance or mixture and uses advised against**	Compressor 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: 17/02/2015

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**	Not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 DMSO test.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures

Component	CAS No.	REACH Reg. No.	GHS Classification	DSD Classification	Conc. %

No hazardous ingredients present at a concentration at or exceeding the Declaration of Content Limit

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 Treat symptomatically. 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 ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

4.3 Indication of immediate medical attention and special treatment needed, if necessary Not expected to give rise to an acute hazard under normal conditions of use.

SECTION 5 FIRE-FIGHTING MEASURES

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**	Wear self-contained breathing apparatus. Water may cause splattering.

SECTION 6 ACCIDENTAL RELEASE MEASURES

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**	Small Spills: Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Large Spills: 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.
6.4	**Reference to other sections**	Personal protective equipment: See section 8

SECTION 7 HANDLING AND STORAGE

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**	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.
7.3	**Specific end use(s)**	Intended for use as a compressor lubricant.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Country	Substance	Long Term (8 Hours TWA)	Short Term (15 Mins)
None			

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.

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 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 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. Measurement of an employee's exposure to oil vapour maybe supplemented through the use of stain tubes. In the first instance, further guidance maybe 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.

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

Hygiene Measures: Wash thoroughly after handling this product

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Does not constitute a specification

Typical Values

Grades:		Cyclone PAO 150
	Units	
Appearance		Amber Liquid
Odour		Mild Oily
Odour Threshold		No data available
pH		Not applicable
Pour point/range	**°C**	No data available
Initial boiling point and range	**°C**	No data available
Flash point (COC)	**°C**	>200
Flammability		Not flammable
Upper/lower flammability or explosive limits		Not applicable
Vapour pressure	**kPa (0.1 mm Hg)**	No data available
Relative density	**kg/m³**	0.925 @ 15°C
Solubility - water		Insoluble
Partition coefficient n-octanol/water	**Log Pow**	Not applicable
Autoignition temperature		No data available
Decomposition temperature		No data available
Viscosity	**mm²/s**	148.3 @ 40°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	Strong oxidizing 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 Toxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the toxicology of similar products.

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**	Not expected to be a skin sensitizer.
- **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 Toxicty	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.
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	None known.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods
Recycle or dispose of in accordance with prevailing regulations, by 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.

SECTION 14 TRANSPORT INFORMATION

Not classified as hazardous for transport (ADR, RID, UN , 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

Second Issue
First Issue March 2013: Changed to new format

Full text of classification data in sections 2 and 3