

**Material Safety Data Sheet**

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

|                                   |   |  |
|-----------------------------------|---|--|
| <b>Material Name</b>              | : | <b>AeroShell Turbine Oil 500</b>   |
| <b>Uses</b>                       | : | Synthetic lubricating oil for aircraft turbine engines. For further details consult the AeroShell Book on <a href="http://www.shell.com/aviation">www.shell.com/aviation</a> . |
| <b>Product Code</b>               | : | 001A0083   |
| <b>Manufacturer/Supplier</b>      | : | <b>ALBA Sh.A</b><br>Fortuzaj, Vaqar<br>Tiranë<br>Albania   |
| <b>Telephone</b>                  | : | +355 48 520068   |
| <b>Fax</b>                        | : | +355 48 520069   |
| <b>Email Contact for MSDS</b>     | : | <a href="mailto:info@alba.al">info@alba.al</a>   |
| <b>Emergency Telephone Number</b> | : | +355 68 2058945  |

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**2. HAZARDS IDENTIFICATION**

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|------------------------------|---|--|
| <b>EC Classification</b>     | : | Sensitising.<br>Dangerous for the environment.   |
| <b>Health Hazards</b>        | : | May cause sensitisation by skin contact. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. May contain mixed isomers of tricresyl phosphate. Tricresyl phosphate may be absorbed either through the skin, by ingestion or by inhalation. These effects are delayed and may be permanent depending upon the degree of exposure. However, the concentration of these harmful isomers of TCP in this product is so low that neurotoxic effects are not expected. Used oil may contain harmful impurities. |
| <b>Signs and Symptoms</b>    | : | Skin sensitisation (allergic skin reaction) signs and symptoms may include itching and/or a rash. Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.  |
| <b>Safety Hazards</b>        | : | Not classified as flammable but will burn.   |
| <b>Environmental Hazards</b> | : | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  |

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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| <b>Preparation Description</b> | : | Blend of synthetic esters and additives. |
| <b>Hazardous Components</b>    | : |  |

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| Chemical Identity   | CAS        | EINECS    | Symbol(s) | R-phrases         | Conc.         |
|---|------------|-----------|-----------|-------------------|---------------|
| Tricresyl phosphate   | 1330-78-5  | 215-548-8 | Xn, N     | R21/22;<br>R51/53 | 1,00 - 2,40 % |
| N-phenyl-1-naphthylamine  | 90-30-2    | 201-983-0 | Xi, N     | R43; R50/53       | 1,00 - 2,00 % |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-Trimethylpentene | 68411-46-1 | 270-128-1 | N         | R51/53            | 0,10 - 0,90 % |

**Additional Information** : Refer to chapter 16 for full text of EC R-phrases.

**4. FIRST AID MEASURES**

- Inhalation** : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
- Advice to Physician** : Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

Clear fire area of all non-emergency personnel.

- Specific Hazards** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
- Suitable Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

**6. ACCIDENTAL RELEASE MEASURES**

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

- Protective measures** : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Clean Up Methods** : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or

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- other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

**7. HANDLING AND STORAGE**

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: -50 - 50°C / -58 - 122°F
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

**Occupational Exposure Limits**

- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

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|  | Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].  |
| <b>Hand Protection</b>                 | : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. 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. Application of a non-perfumed moisturizer is recommended. |
| <b>Eye Protection</b>                  | : Wear safety glasses or full face shield if splashes are likely to occur.   |
| <b>Protective Clothing</b>             | : Skin protection not ordinarily required beyond standard issue work clothes.  |
| <b>Monitoring Methods</b>              | : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.   |
| <b>Environmental Exposure Controls</b> | : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.   |

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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| Appearance                                      | : Various colours. Yellow. Red. Brown. Liquid at room temperature. |
| Odour   | : Slight hydrocarbon.  |
| pH  | : Not applicable.  |
| Initial Boiling Point and Boiling Range         | : > 280 °C / 536 °F estimated value(s)                             |
| Pour point                                      | : < -57 °C / -71 °F  |
| Flash point                                     | : Typical 260 °C / 500 °F (COC)                                    |
| Upper / lower Flammability or Explosion limits  | : Typical 1 - 10 %(V)  |
| Auto-ignition temperature                       | : > 320 °C / 608 °F  |
| Vapour pressure                                 | : < 0,5 Pa at 20 °C / 68 °F (estimated value(s))                   |
| Density   | : Typical 1,005 kg/m <sup>3</sup> at 15 °C / 59 °F                 |
| Water solubility                                | : Negligible.  |
| n-octanol/water partition coefficient (log Pow) | : > 6 (based on information on similar products)                   |
| Kinematic viscosity                             | : Typical 27 mm <sup>2</sup> /s at 40 °C / 104 °F                  |
| Vapour density (air=1)                          | : > 1 (estimated value(s))   |
| Evaporation rate (nBuAc=1)                      | : Data not available   |

**Material Safety Data Sheet****10. STABILITY AND REACTIVITY**

|   |  |
|---|--|
| <b>Stability</b>                        | : Stable.  |
| <b>Conditions to Avoid</b>              | : Extremes of temperature and direct sunlight.                                     |
| <b>Materials to Avoid</b>               | : Strong oxidising agents.   |
| <b>Hazardous Decomposition Products</b> | : Hazardous decomposition products are not expected to form during normal storage. |

**11. TOXICOLOGICAL INFORMATION**

|  |   |
|--|---|
| <b>Basis for Assessment</b>                    | : Information given is based on data on the components and the toxicology of similar products.  |
| <b>Acute Oral Toxicity</b>                     | : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat   |
| <b>Acute Dermal Toxicity</b>                   | : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit  |
| <b>Acute Inhalation Toxicity</b>               | : Not considered to be an inhalation hazard under normal conditions of use.   |
| <b>Skin Irritation</b>                         | : Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.   |
| <b>Eye Irritation</b>                          | : Expected to be slightly irritating.   |
| <b>Respiratory Irritation</b>                  | : Inhalation of vapours or mists may cause irritation.  |
| <b>Sensitisation</b>                           | : Expected to be a skin sensitizer.   |
| <b>Repeated Dose Toxicity</b>                  | : Not expected to be a hazard.  |
| <b>Mutagenicity</b>                            | : Not considered a mutagenic hazard.  |
| <b>Carcinogenicity</b>                         | : Components are not known to be associated with carcinogenic effects.  |
| <b>Reproductive and Developmental Toxicity</b> | : Not expected to be a hazard.  |
| <b>Additional Information</b>                  | : Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. |

**12. ECOLOGICAL INFORMATION**

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

|                                  |   |
|----------------------------------|---|
| <b>Acute Toxicity</b>            | : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be harmful: LL/EL/IL50 10-100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). |
| <b>Mobility</b>                  | : Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.  |
| <b>Persistence/degradability</b> | : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.  |
| <b>Bioaccumulation</b>           | : Contains components with the potential to bioaccumulate.  |
| <b>Other Adverse Effects</b>     | : Product is a mixture of non-volatile components, which are not  |

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expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

**13. DISPOSAL CONSIDERATIONS**

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**14. TRANSPORT INFORMATION****ADR**

This material is not classified as dangerous under ADR regulations.

**RID**

This material is not classified as dangerous under RID regulations.

**ADNR**

This material is not classified as dangerous under ADNR regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations.

**15. REGULATORY INFORMATION**

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

- EC Classification : Sensitising. Dangerous for the environment.
- EC Symbols : Xi Irritant.
- EC Risk Phrases : R43 May cause sensitisation by skin contact.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- EC Safety Phrases : S24 Avoid contact with skin.  
S37 Wear suitable gloves.  
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Local Inventories**

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|                                      |   |  |
|--------------------------------------|---|--|
| EINECS                               | : | All components listed or polymer exempt. |
| TSCA                                 | : | All components listed.                   |
| Classification triggering components | : | Contains N-phenyl-1-naphthylamine.       |

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**16. OTHER INFORMATION**

## R-phrase(s)

|        |  |
|--------|--|
| R21/22 | Harmful in contact with skin and if swallowed.   |
| R43    | May cause sensitisation by skin contact.   |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.      |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.    |

|                              |   |   |
|------------------------------|---|---|
| <b>MSDS Version Number</b>   | : | 1.0   |
| <b>MSDS Effective Date</b>   | : | 19.08.2010  |
| <b>MSDS Revisions</b>        | : | A vertical bar ( ) in the left margin indicates an amendment from the previous version.   |
| <b>MSDS Regulation</b>       | : | The content and format of this safety data sheet is in accordance with Commission Directive 2001/58/EC of 27 July 2001, amending for the second time Commission Directive 91/155/EEC.   |
| <b>Uses and Restrictions</b> | : | This product must be used, handled and applied in accordance with the requirements of the equipment manufacturer's manuals, bulletins and other documentation.  |
| <b>MSDS Distribution</b>     | : | The information in this document should be made available to all who may handle the product.  |
| <b>Disclaimer</b>            | : | 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 should not therefore be construed as guaranteeing any specific property of the product. |