

## Safety Data Sheet

**AeroShell Grease 33MS****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**

**Product Code** 001B1683  
**Infosafe No.** ACM8L BE/eng/C  
**Issued Date** 28/04/2005  
**Product Type/Use** Synthetic grease for aircraft, containing molybdenum disulphide. For further details consult the AeroShell Book on [www.shell.com/aviation](http://www.shell.com/aviation).

**Other Names**

<b>Name</b>	<b>Code</b>
AeroShell Grease 33MS	140001801681

<b>Supplier</b>	<b>Telephone Numbers</b>
Belgian Shell N.V. Avenue Arnaud Fraiteur Laan 15-23 Bruxelles - 1050 - Brussel. BELGIUM	<b>Emergency Tel.</b> 33-(0)4-42745115 <b>Telephone/Fax Number</b> Tel: 02 508 9010

**2. COMPOSITION/INFORMATION ON INGREDIENTS****Preparation Description**

Synthetic oil grease thickened with a lithium soap, containing additives.

Name	CAS	EINECS	Proportion	Hazard	R Phrase
Low viscosity polyal-phaolefin	68649-11-6	500-228-5	1-5 %	Xn	R65
Alkyl thiadiazole	13539-13-4	236-912-2	0.1-0.5 %	Xi, Xn	R36/38, R43, R20

**Other Information**

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

**3. HAZARDS IDENTIFICATION**

<b>EC Classification</b>	Not classified as Dangerous under EC criteria.
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**Human Health Hazards**

No specific hazards under normal use conditions. Prolonged or repeated exposure may give rise to dermatitis. Used grease may contain harmful impurities.

**Safety Hazards**

Not classified as flammable, but will burn.

**Environmental Hazards**

Not classified as dangerous for the environment.



#### 4. FIRST AID MEASURES

##### **Symptoms and Effects**

Not expected to give rise to an acute hazard under normal conditions of use. May cause an allergic skin reaction in sensitive individuals.

##### **Inhalation**

In the unlikely 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. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

##### **Eye**

Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

##### **Ingestion**

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

##### **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 of function.

#### 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 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.

##### **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.

##### **Clean-up Methods - Small Spillages**

Dispose into a suitable, clearly marked container for disposal or reclamation in accordance with local regulations.



### **Clean-up Methods - Large Spillages**

As for small spills.

## **7. HANDLING AND STORAGE**

### **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.

### **Storage**

Keep in a cool, dry, well-ventilated place. Use properly labelled and closeable containers. Avoid direct sunlight, heat sources, and strong oxidizing agents.

### **Storage Temperatures**

-50°C Minimum. 50°C 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 to high temperatures because of possible risk of distortion.

## **8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

### **Exposure Limits**

No Exposure Limit Established

### **Other Exposure Information**

Due to the product's semi-solid consistency, generation of mists and dusts is unlikely to occur.

### **Exposure Controls**

Use local exhaust ventilation if there is a risk of inhalation of vapours, mists or aerosols.

### **Respiratory Protection**

Not normally required. If oil mist cannot be controlled, a respirator fitted with an organic vapour cartridge combined with a particulate pre-filter should be used.

### **Hand Protection**

PVC or nitrile rubber gloves.

### **Eye Protection**

Wear safety glasses or full face shield if splashes are likely to occur.

### **Body Protection**

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

### **Environmental Exposure Controls**

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



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Colour</b>	Dark grey.
<b>Physical State</b>	Semi-solid at ambient temperature.
<b>Odour</b>	Slight.
<b>pH Value</b>	Data not available.
<b>Vapour Pressure</b>	Data not available.
<b>Solubility in Water</b>	Negligible.
<b>Density</b>	<1000 kg/m <sup>3</sup> at 15°C.
<b>Flash Point</b>	>215°C (PMCC) (Based on synthetic hydrocarbon oil).
<b>Flammable Limits - Upper</b>	Data not available.
<b>Flammable Limits - Lower</b>	Data not available.
<b>Auto-Ignition Temperature</b>	Data not available.
<b>Kinematic Viscosity</b>	Not applicable.
<b>Vapour Density (Air=1)</b>	Data not available.
<b>Partition co-efficient, n-octanol/water</b>	Data not available.
<b>Dropping Point</b>	234°C.

## 10. STABILITY AND REACTIVITY

### Stability

Stable.

### Conditions to Avoid

Extremes of temperature and direct sunlight.

### 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 not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products.

### Acute Toxicity - Oral

LD50 expected to be > 2000 mg/kg.

### Acute Toxicity - Dermal

LD50 expected to be > 2000 mg/kg.

### 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 vapours are inhaled, slight irritation of the respiratory tract may occur.

### Skin Sensitisation

Not expected to be a skin sensitizer.



### **Carcinogenicity**

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 products containing mineral oils 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 may lead to local necrosis if the product is not surgically removed. Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease 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 the ecotoxicology of similar products.

### **Mobility**

Semi-solid under most environmental conditions. Floats on water. If it comes into contact with soil, it will strongly adsorb to soil particles.

### **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 >100 mg/l. (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

### **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**

Dispose into a suitable, clearly marked container for disposal or reclamation in accordance with local regulations. The competence of the contractor to deal satisfactorily with used oil 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 or contractor.



**EU Waste Disposal Code (EWC)**

12 01 12 spent waxes and fats.

Classification of waste is always the responsibility of the end user.

**14. TRANSPORT INFORMATION****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 in compliance.

**Packaging & Labelling**

Contains thiadiazole derivative. May produce an allergic reaction. Safety data sheet available for professional user on request.

**16. OTHER INFORMATION****Revisions Highlighted**

Because of a new system the version number was reset.

**References**

67/548/EEC - Dangerous Substances Directive.

1999/45/EC - Dangerous Preparations Directive.

91/155/EEC - Safety Data Sheet Directive.

Concawe Report 01/53 - Classification and labelling of petroleum substances according to the EU dangerous substances directive.

Concawe Report 01/54 - Environmental Classification of Petroleum Substances - Summary Data and Rationale

Concawe Report 05/87 - Health aspects of lubricants.

**Restrictions**

Contains a synthetic oil and should not be used in contact with incompatible seal materials. This product must be used, handled and applied in accordance with the requirements of the equipment manufacturer's manuals, bulletins and other documentation.

**List of R Phrases in Section 2**

R20 Harmful by inhalation.

R43 May cause sensitization by skin contact.

R65 Harmful: may cause lung damage if swallowed.

R36/38 Irritating to eyes and skin.

**Technical Contact Numbers**

02 508 90 10.

**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.

... End Of SDS ...

