

Safety Data Sheet

Shell Darina Grease 2**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**

Product Code 001A0168
Infosafe No. ACMMI DE/eng/C
Issued Date 11.05.2006
Product Type/Use Automotive and industrial grease.

Other Names	Name	Code
	Shell Darina Grease 2	140001747784

Supplier	Telephone Numbers
Shell Deutschland Oil GmbH Suhrenkamp 71-77 22335 Hamburg Auskunftgebender Bereich: - Anwendungstechnische Informationen: Tel. (040) 3003-8830 - Auskunft zum Sicherheitsdatenblatt Tel. (040) 6324-6255 GERMANY	Emergency Tel. 040-6324-5110 Telephone/Fax Number Tel: 040-6324-0 Fax: 040-632 1051

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

A lubricating grease containing highly-refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION

EC Classification	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. Avoid oil mists.

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.

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

0°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.

Storage Class

Not Applicable.

Other Information

Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

Fire Class

B.

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

Not applicable.

Respiratory Protection

Respiratory protection is required in the case of oil mists.

Hand Protection

Protective gloves made from PVC or nitrile rubber, so far as safely permissible. The characteristics of the protective gloves shall be determined by the conditions existing in practice (e.g. multiple use, mechanical loads, temperature conditions, strength and duration of the exposure which can be expected). Suitability tests by the user are recommended before selection of appropriate gloves.

Eye Protection

Monogoggles.

Body Protection

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour	Brown.
Physical State	Semi-solid at ambient temperature.
Odour	Characteristic mineral oil.
pH Value	Data not available.
Vapour Pressure	Expected to be less than 0.5 Pa at 20°C.
Initial Boiling Point	Data not available.
Solubility in Water	Negligible.
Density	circa 900 kg/m ³ at 15°C.
Flash Point	>100°C (COC).
Flammable Limits - Upper	10% V/V (typical) (based on mineral oil).
Flammable Limits - Lower	1% V/V (typical) (based on mineral oil).
Auto-Ignition Temperature	Expected to be above 320°C.
Kinematic Viscosity	Not applicable.
Vapour Density (Air=1)	Greater than 1.
Partition co-efficient, n-octanol/water	Log Pow expected to be greater than 6.
Dropping Point	Data not available.

10. STABILITY AND REACTIVITY

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

Product is based on mineral oils of types shown to be non-carcinogenic in animal skin-painting studies.

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 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 this type of product should be established beforehand. Do not pollute the soil, water or environment with the waste product.

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

Safety data sheet available for professional user on request.

Seveso classification

Product is not listed.

Technical Rules Air

Product not listed by name. Observe section 5.2.5 in connection with section 5.4.9.

Water Endangerment Class (WGK)

WGK 2 (VwVwS 5/99, APPENDIX 2).

Volatile Organic Compounds

None.

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

This product must not be used in applications other than recommended without first seeking the advice of the SHELL technical department.

Technical Contact Numbers

(040) 3003-8830.

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 ...