1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product name: SHELL ALVANIA EP GREASE 1
SHELL ALVANIA EP GREASE 2
SHELL ALVANIA EP GREASE R0
SHELL ALVANIA EP GREASE R00

Product code: See Table 1
Product type: Lubricating greases
Supplier: «Supplier»
Address: «Add1»
«Add2»

Contact numbers:
Telephone: «ContactNo»
Telex: «ContactTlx»
Fax: «ContactFax»

Emergency telephone number:
«EmergencyCover»
«ENT24Hour»

2. COMPOSITION/INFORMATION ON INGREDIENTS

Preparation description: A lubricating grease containing highly-refined mineral oils and additives. Contains lead compounds.

Dangerous components/constituents:

<table>
<thead>
<tr>
<th>Component name</th>
<th>CAS number</th>
<th>Content range % m/m</th>
<th>EC hazard</th>
<th>R phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthenic acids, lead salts</td>
<td>61790-14-5</td>
<td>1 to 5 %</td>
<td>Repr.Cat 1</td>
<td>R61,R20/ 22,R33</td>
</tr>
</tbody>
</table>

(Ref: EU Dangerous Substances Directive, 67/548/EEC, Annex I entry for lead compounds, No 082-001-00-6)

3. HAZARDS IDENTIFICATION

Human health hazards: May cause harm to the unborn child. Danger of cumulative effects. 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 readily biodegradable. Expected to have a high potential to bioaccumulate.
4. FIRST AID MEASURES

Symptoms and effects: Not expected to give rise to an acute hazard under normal conditions of use. Prolonged exposure may cause fatigue, abdominal pain, black lines on the gums, headaches and tremors. Kidney and reproductive effects have been reported.

First Aid - Inhalation: Inhalation of any vapours from this product is not likely to present an acute hazard.

First Aid - Skin: Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention.

If high pressure injection injuries occur, obtain medical attention immediately.

First Aid - Eye: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

First Aid - Ingestion: Wash out mouth with water and obtain medical attention. DO NOT INDUCE VOMITING.

Advice to physicians: Treat symptomatically. Aspiration into the lungs may result in chemical pneumonitis. Dermatitis may result from prolonged or repeated exposure. Antidotes are available for lead poisoning.

5. FIRE FIGHTING MEASURES

Specific hazards: Combustion is likely to give rise to a complex mixture of gases and airborne particulates, including carbon monoxide, oxides of sulphur, lead compounds 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 a 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: Minimise contact with skin.

Personal protection: Wear impermeable gloves and boots.

Environmental precautions: Prevent from entering into drains, ditches or rivers. Inform local authorities if this cannot be prevented.

Clean-up methods - small spillage: Shovel into a suitable, clearly marked container for disposal or reclamation in accordance with local regulations.

Clean-up methods - large spillage: As for small spills.
7. HANDLING AND STORAGE

Handling: When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages.

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

Storage temperature: 0°C minimum to 50°C maximum.

Recommended materials: Use mild steel or high density polyethylene (HDPE) for containers or container linings.

Unsuitable materials: Avoid PVC for containers or container linings.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure standards: None established.

Hygiene measures: Wash hands before eating and drinking.

Respiratory protection: Not normally required.

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. Wear overalls to minimise contamination of personal clothing. Launder overalls and undergarments regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Semi-solid at ambient temperature

Colour: See Table 1

Odour: Characteristic mineral oil

Vapour pressure: < 0.5 Pa at 20°C (based on mineral oil)

Density: See Table 1

Vapour density (air=1): > 1

Dropping point: See Table 1

Flash point: > 140°C (COC) (based on mineral oil)

Flammability limit - lower: 1% V/V (typical) (based on mineral oil)

Flammability limit - upper: 10% V/V (typical) (based on mineral oil)

Auto-ignition temperature: > 320°C (typical)

Solubility in water: Negligible

n-octanol/water partition coefficient: Log P_{ow} > 6 (typical)
Elements content: Lithium: <0.5% (m/m). Lead: <1.0% (m/m).

10. STABILITY/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 above 2000 mg/kg
   Acute toxicity - dermal: LD₅₀ expected to be above 2000 mg/kg
   Eye irritation: Expected to be slightly irritant.
   Skin irritation: Expected to be slightly irritant.
   Respiratory irritation: If vapours are inhaled, slight irritation of the respiratory tract may occur.
   Skin sensitization: Not expected to be a skin sensitizer.
   (Sub) chronic toxicity: Possible risk of cumulative effects from lead absorption through the skin.
   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
   Human effects: Exposure to lead compounds may lead to accumulation in the bones and cause toxic changes to central nervous system, kidney, blood and heart. Lead is a developmental toxicant and may possibly be a carcinogen at high dosage levels.
   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.
   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 readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

**Bioaccumulation:** Has the potential to bioaccumulate.

**Ecotoxicity:** Poorly soluble mixture. Product is expected to be practically non-toxic to aquatic organisms, LC/EC$_{50}$ > 100 mg/L. May cause physical fouling of aquatic organisms.

(LC/EC$_{50}$ expressed as the nominal amount of product required to prepare aqueous test extract).

13. DISPOSAL CONSIDERATIONS

**Waste disposal:** Used or waste grease should be recycled or disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the contractor to deal satisfactorily with used grease should be established beforehand. Used or waste grease should not be allowed to contaminate soil or water.

**Product disposal:** As for waste disposal.

**Container disposal:** 200 litre drums should be emptied and returned to the supplier or sent to a drum reconditioner without removing or defacing markings or labels. Non-reusable small metal and plastic containers should be recycled where possible, or disposed of as domestic refuse.

**Local legislation:**

14. TRANSPORT INFORMATION

Not dangerous for conveyance under UN, IMO, ADR/RID and IATA/ICAO codes.

15. REGULATORY INFORMATION

**EC Classification:** Toxic for reproduction (development)

**EC Symbols:** T.
EC Risk Phrases:  
R61 May cause harm to the unborn child.  
R33 Danger of cumulative effects

EC Safety Phrases:  
S53 Avoid exposure - obtain special instructions before use.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

EINECS (EC):  
All components listed or polymer exempt

TSCA (USA):  
All components listed.

Other information:  
For listing on other inventories, eg MITI (Japan), AICS (Australia) and DSL (Canada), please consult suppliers.

Dangerous constituents:  
Contains naphthenic acids, lead salts

16. OTHER INFORMATION

Uses and restrictions:  
Multipurpose grease for rolling and plain bearings operating under loaded conditions.

Technical contact point:  
«TechPoint»

Technical contact number:

Telephone:  
«TechNo»

Telex:  
«TechTlx»

Fax:  
«TechFax»

SDS history:

Edition number:  
4

First issued:  
20-12-88

Revised:  
July 5, 1995

Revisions highlighted:  
New format and minor editorial changes.

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 be construed as guaranteeing any specific property of the product.

### TABLE 1: ALVANIA EP GREASES

Product codes and typical properties

<table>
<thead>
<tr>
<th>SHELL ALVANIA EP GREASE GRADE</th>
<th>1</th>
<th>2</th>
<th>RO</th>
<th>ROO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Codes</td>
<td>65 7 20</td>
<td>65 7 21</td>
<td>65 7 19</td>
<td>65 7 17</td>
</tr>
<tr>
<td>Density at 15°C (kg/m³)</td>
<td>900</td>
<td>900</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Dropping point °C (by ASTM D-566)</td>
<td>&gt;177</td>
<td>&gt;180</td>
<td>&gt;175</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Appearance</td>
<td>Dark Brown</td>
<td>Dark Brown</td>
<td>Brown</td>
<td>Brown</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
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</tr>
</tbody>
</table>

**Appearance**

- Dark Brown
- Dark Brown
- Brown
- Brown