PRODUCT NAME: GREASE - APIEZON AP100

1. Product and Company Identification

Product name: Apiezon Grease AP100
Synonyms: None
Item Numbers: H023-01-030, H023-00-043

European Contact Details
Edwards, Manor Royal, Crawley
West Sussex, RH10 9LW, England

General enquiries
UK : +44 (0)1293 528844
France : +(33) 1 47 98 24 01
Germany : +(49) 6420-82-410
Italy : +(39) 0248-4471

US Contact Details
Edwards, 301 Ballardvale Street,
Wilmington, MA 01887

General enquiries
Toll Free: 1-800-848-9800

24 h Emergency telephone number:
Chemtrec: 1-800-424-9300

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>% Weight</th>
<th>CAS No</th>
<th>Hazard class*</th>
<th>Risk phrase*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbon grease</td>
<td>100</td>
<td>8012-95-1</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9002-84-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive (67/548/EEC, as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

3. Hazards Identification

**EMERGENCY OVERVIEW**

This material when properly handled according to good working and hygienic practices is not dangerous to human health and the environment. Toxic fumes may be liberated above 300 °C/572 °F.

For short and long term exposure effects see Section 11 Toxicological data.

Eye Effects: May cause transient irritation.

Skin Effects: Repeated and prolonged contact may cause skin disorders.

Ingestion/Oral Effects: May cause nausea, vomiting and diarrhoea.

Inhalation Effects: Low volatility makes hazardous inhalation effects unlikely.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.
4. First Aid Measures

Eyes: Irrigate with copious quantities of cold water.

Skin: Wash with soap and water.

Ingestion/Oral: Do not induce vomiting. Obtain medical attention.

Inhalation: None envisaged. If fumes produced at elevated temperatures are inhaled, remove to fresh air. If breathing problems occur, a qualified individual should administer oxygen or artificial respiration as indicated. Seek immediate medical attention.

Other Information: None.

5. Fire Fighting Measures

Extinguishing Media: Carbon dioxide, dry powder, foam or water fog. Do not use water jets.

Fire and Explosion Hazard: No unusual hazards known. May liberate gases at temperatures higher than 300 °C/572 °F. Direct water jet stream may cause violent frothing.

Special Protective Equipment for Fire Fighters: In confined spaces, fire fighters should wear a self-contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode and full turnout gear.

For Flammability Properties - see Section 9

6. Accidental Release Measures

Remove grease and clean area to prevent slip hazard. Place recovered grease in containers. Prevent product from entering drains, sewers and watercourses.

7. Handling and Storage

Handling: No special precautions required.

Storage: No special precautions required.
8. Exposure Controls/Personal Protection

Exposure Limits:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>ACGIH - TLV</th>
<th>OSHA - PEL</th>
<th>Occupational Exposure Limits EH40 (UK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil mist</td>
<td>5 mg/m³ - 8 H TWA (1)</td>
<td>5 mg/m³ - 8 H TWA (as oil mist, mineral)</td>
<td>5 mg/m³ - 8h TWA(2) 10 mg/m³ -STEL(2)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ - STEL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) As sampled by a method which does not collect vapour.
(2) Recommendation by the manufacturer for oil mists.

Personal Protection:

Engineering Measures: None required under normal conditions of use.
Respiratory Protection: None required under normal conditions of use.
Hand/Skin Protection: None required under normal conditions of use. For prolonged or repeated contact, wear impervious gloves.
Eye/Face Protection: None required under normal conditions of use.
Hygiene Measures: Practice good workplace hygiene. Do not eat or smoke when handling. Wash hands after use and before eating.
Other/General Protection: None.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odour</td>
<td>Yellow semi solid. Faint oily odour.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>pH (as supplied)</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Volatile Content by Volume</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.042 @ 20 °C / 68 °F</td>
</tr>
<tr>
<td>Vapour Pressure (mbar)</td>
<td>8 x 10⁻¹¹ @ 20 °C</td>
</tr>
<tr>
<td>Vapour Pressure (Torr)</td>
<td>7 x 10⁻¹¹ @ 68 °F</td>
</tr>
<tr>
<td>Melting Point</td>
<td>45-52 / 113-125 °C/°F</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>&gt; 250 / 482 °C/°F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 200 / 392 °C/°F</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Stability: Stable.
Material/Conditions to Avoid: Avoid strong oxidising agents. Avoid temperatures > 120 °C/248 °F.
Hazardous Decomposition: Toxic gases may be liberated at temperatures > 300 °C/572 °F.
Hazardous Polymerisation: Will not polymerise.
11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 3 Hazards Identification.

Animal data:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>EU</th>
<th>CAN</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 value Oral</td>
<td>&gt; 2 g/kg (rat), Dermal</td>
<td>&gt; 2 g/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>LC50 value</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity:

No known carcinogenic or mutagenic effects.

12. Ecological Information

When the product is used and/or disposed of as indicated, no adverse environmental effects are foreseen.

Mobility: The material is non volatile and insoluble in water.
Degradability: The product has limited biodegradability in aerobic conditions; PTFE biologically inert.

13. Disposal Considerations

The product and its packaging must be disposed of in accordance with local and national regulations. The product must not be incinerated due to liberation of toxic gases at temperatures > 300 °C/572 °F. Unused product may be returned for reclamation.

14. Transport Information

This product is not classified as dangerous under transport regulations.

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>EUROPEAN</th>
<th>CANADIAN TDG</th>
<th>UNITED STATES DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Identification Number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Shipping Label</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
15. Regulatory Information

European Regulatory Information

This product has been classified in accordance with the Dangerous Substances Directive (67/548/EEC, as amended) and the Preparations Directive (88/379/EEC, as amended), implemented in the UK as the Chemical (Hazard Information and Packing) Regulations 1994 (CHIP, as amended).

Classified as dangerous to supply: No
Risk Phrases: Not applicable
Safety Phrases: Not applicable
Symbols: None

United States Regulatory Information

All materials contained in this product are on the U.S. Toxic Substances Control Act (TSCA).

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and 40 CFR Part 372.

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

Canadian Regulatory Information

WHMIS Classification: D2B
All ingredients in this product are included in the Canadian DSL.
16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and the EU Safety Data Sheet Directive 91/155/EEC.

Sources of information for this data sheet:

Glossary:

ACGIH - American Conference of Governmental Industrial Hygienists; ANSI - American National Standards Institute; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS - Chemical Abstracts Service; Chemtrec - Chemical Transportation Emergency Center (US); CHIP - Chemical (Hazard Information and Packing); DSL - Domestic Substances List; EH40 (UK) - HSE Guidance Note EH40 Occupational exposure limits; EPCRA - Emergency Planning and Community Right-to-Know Act; HMIS - Hazardous Material Information Service; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OSHA - Occupational Safety and Health Administration, US department of Labour; PEL - Permissible exposure limit; SARA (Title III) - Superfund Amendments and Reauthorization Act; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self-Contained Breathing Apparatus; STEL - Short Term Exposure Limit; TLV - threshold limit value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-Weighted Average; US DOT - US Department of Transportation; WHMIS - Workplace Hazardous Materials Information System.

Revisions:

Nov 2007 - Data Sheet updated to reflect the latest supplier safety information.

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