SECTION 1 - IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

PDL Electrical Solutions
1 Inglis Road, (Clipsal Warehouse)
Ingleburn NSW 2565 Australia

Substance: Mineral Oil - hydrocarbon propellant 100 Grams.
Trade Name: PDL SD 000 Test Smoke
Product Use: Aerosol used to test smoke alarms.
Creation Date: May, 2004
Revision Date: Jan, 2008

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as:
Not classified as hazardous according to the criteria of NOHSC Australia.
Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases:
Not Hazardous - No criteria found.

Safety Phrases:
Not Hazardous - No criteria found.

SUSDP Classification: None allocated.

ADG Classification: Class 2.1 (AEROSOLS)
UN Number: 1950

Emergency Overview

Physical Description & colour: Clear colourless liquid (liquid phase).
Odour: Mild hydrocarbon odour.

Major Health Hazards: no significant risk factors have been found for this product.

Potential Health Effects

Inhalation
Short term exposure: Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.
Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short term exposure: Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.
Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short term exposure: Exposure via eyes is considered to be unlikely. If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.
Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short term exposure: Significant oral exposure is considered to be unlikely. This product is unlikely to cause any irritation problems in the short or long term.
Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.
Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc, %</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkanes, C₃₋₄</td>
<td>68475-59-2</td>
<td>&gt;90</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Liquid hydrocarbon</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:
You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.

Eye Contact: Quickly and gently blot or brush product away. Flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until irritation has ceased, while holding the eyelid(s) open. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: First aid is not generally required. If in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires. Aim to dilute the material with large quantities of water. If practical, contain diluted material and prevent from entering drains and water courses.

Fire Fighting: Immediately evacuate the area of unnecessary personnel.

Flash point: Not available

Upper Flammability Limit: Not available

Lower Flammability Limit: Not available

Autoignition temperature: No data.

Flammability Class: Flammable

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Take suitable precautions eg use of non-sparking equipment to avoid creating sparks or flames which may ignite the spilled material. Leaking gases may form an explosion hazard. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters

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This revision issued: January, 2008
drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

**Section 7 - Handling and Storage**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you probably require a license to do so. If you have any doubts, we suggest you contact your licensing authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

**Section 8 - Exposure Controls and Personal Protection**

The following Australian Standards will provide general advice regarding safety clothing and equipment:

- **Respiratory equipment:** AS/NZS 1715
- **Protective Gloves:** AS 2161
- **Industrial Clothing:** AS2919
- **Industrial Eye Protection:** AS1336 and AS/NZS 1337
- **Occupational Protective Footwear:** AS/NZS2210

**Exposure Limits**

<table>
<thead>
<tr>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
</table>

Exposure limits have not been established by NOHSC for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** There is no specific recommendation for any particular protective material type.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

**Section 9 - Physical and Chemical Properties:**

- **Physical Description & colour:** Clear colourless liquid (liquid phase).
- **Odour:** Mild hydrocarbon odour.
- **Boiling Point:** Not available.
- **Freezing/Melting Point:** No specific data. Liquid at normal temperatures.
- **Volatiles:** Propellant completely volatile; mineral oil negligible.
- **Vapour Pressure:** 310 kPa approx (propellant)
- **Vapour Density:** No data.
- **Specific Gravity:** No data.
- **Water Solubility:** Negligible.
- **pH:** No data.
- **Volatility:** No data.
- **Odour Threshold:** No data.
- **Evaporation Rate:** No data.
- **Coeff Oil/water distribution:** No data.
- **Autoignition temp:** No data.

**Section 10 - Stability and Reactivity**

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition. Any electrical equipment in the area of this product should be flame proofed.

**Incompatibilities:** strong oxidising agents.

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Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.
Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - Toxicological Information

Local Effects:
Target Organs: There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ingredient mentioned in the List of Designated Hazardous Substances is present in this product at hazardous concentrations.</td>
<td></td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Section 13 - Disposal Considerations

Disposal: Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. Do not puncture or incinerate cans, even when empty. Please do NOT dispose into sewers or waterways.

Section 14 - Transport Information

ADG Code: 1950, AEROSOLS
Hazchem Code: 2RE
Special Provisions: SP63, SP190, SP229, SP227
Dangerous Goods Class: Class 2.1, Flammable gases.
Packaging Group: Inner Packs (Plastic Wrapped) 6 each, Outer Packs (Cardboard Box) 12 each
Packaging Method: Transport in Outer Pack (12) ONLY is recommended

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS Australian Inventory of Chemical Substances
CAS number Chemical Abstracts Service Registry Number
Hazchem Number Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
NOHSC National Occupational Health and Safety Commission
NOS Not otherwise specified
NTP National Toxicology Program (USA)
R-Phrase Risk Phrase
SUSDP Standard for the Uniform Scheduling of Drugs & Poisons
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Please read all labels carefully before using product.

This MSDS is prepared in accord with the NOHSC document “National Code of Practice for the Preparation of Material Safety Data Sheets” 2nd Edition [NOHSC:2011(2003)]
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