SAFETY DATA SHEET
According to Regulation (EC) No 1907/2006 (REACH)
Version 2.1 Print date: 03/05/2013
Revision date: 03/05/2013

Section 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:
Identification on the label/Trade name: Lanotec heavy duty liquid lanolin
CAS: See section 3  EC: See section 3
Index Number: N/A
REACH Pre-registration No.: N/A
Additional identification: Lanotec heavy duty liquid lanolin, 750 mL spray;
Lanotec heavy duty liquid lanolin, 1 litre spray; Lanotec heavy duty liquid lanolin, 1 litre;
Lanotec heavy duty liquid lanolin, 5 litres; Lanotec heavy duty liquid lanolin, 20 litres

1.2 Relevant identified uses of the substance and uses advised against:
1.2.1 Identified uses:
Lubricant / corrosion inhibitor.

1.2.2 Uses advised against:
Not available.

1.3 Details of the supplier of the safety data sheet:
DKF Ltd
Straffan, Co. Kildare
Tel: 00353 (87) 2307578  Fax: N/A
Email: juliafortune@eircom.net.

1.4 Emergency telephone Number: 00353 (87) 2307578  (Office Hours 09.00- 17.00 Mon to Fri)
Available 24 hours? YES  NO  X

Section 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification:

| Classification according to EU CLP 1272/2008 |
| Hazard classes/Hazard categories | Hazard statement |
| Asp. Tox. 1 | H304 |

For full text of H-phrases: see section 2.2.

| Classification according to 1999/45/EC(DSD) |
| Hazards characteristics | R-Phrases |
| Xn | R65 |

For full text of R-phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:
Not available.

2.1.2.2 The most important adverse human health effects:
May be fatal if swallowed and enters airways.
2.1.2.3 The most important adverse environmental effects:
Not available.

2.2 Label elements

Hazard Pictograms:

Signal Word(S): Danger

Hazard Statement: H304: May be fatal if swallowed and enters airways.


2.3 Other hazards
Not applicable.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/Mixture:</th>
<th>Mixture</th>
</tr>
</thead>
</table>

| Ingredient(s): |

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Index No.</th>
<th>CAS#</th>
<th>EC#</th>
<th>% by weight</th>
<th>REACH No.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>649-422-00-2</td>
<td>64742-47-8</td>
<td>265-149-8</td>
<td>&gt;60%</td>
<td>-</td>
<td>H304</td>
</tr>
<tr>
<td>Lanolin</td>
<td>N/A</td>
<td>8006-54-0</td>
<td>232-348-6</td>
<td>30-60%</td>
<td>-</td>
<td>N/A</td>
</tr>
<tr>
<td>Non-hazardous</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Balance</td>
<td>-</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 4 FIRST AID MEASURES

4.1 Description of first aid measures:

4.1.1 In case of inhalation:
Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

4.1.2 In case of skin contact:
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.
4.1.3 In case of eyes contact:
   If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

4.1.4 In case of ingestion:
   Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Get to a doctor or hospital quickly.

4.2 Most important symptoms and effects, both acute and delayed
   May be fatal if swallowed and enters airways.

4.3 Indication of any immediate medical attention and special treatment needed
   Immediately call a POISON CENTER or doctor/physician.

Section 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media:
   Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).
   Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
   Combustible material. On burning may emit oxides of carbon and nitrogen, smoke and other toxic fumes.

5.3 Advice for fire-fighters:
   In any fire, fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
   Observe good industrial hygiene practices. Use personal protective equipment recommended in Section 8. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions:
   No special environmental precautions required.

6.3 Methods for containment and cleaning up:
   Small spills: Wipe up with absorbent (clean rag or paper towels). Allow absorbent to dry before disposing with normal household garbage.
   Large spills: Slippery when spilt. Avoid accidents, clean up immediately. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

6.4 Reference to other sections:
   Refer to section 8 of the SDS.

6.5 Additional information:
   Not available.
7.1 Precautions for safe handling:

7.1.1 Protective measures:
Practice good housekeeping. Avoid breathing excessive vapors. Avoid contact with skin and eyes.
Use personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling.

7.1.2 Advice on general occupational hygiene:
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well-ventilated place and out of direct sunlight. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s):
Not available.

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Section 8 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Natural ventilation should be adequate under normal use conditions.

8.2.2 Individual protection measures, such as personal protective equipment:
Eye/face protection: Goggles or face shield, if splashes or contact with eyes is possible.
Hand protection: Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment.
Body protection: Wear normal work clothing.
Respiratory protection: In the case of vapor formation use a respirator with an approved filter.

8.2.3 Environmental exposure controls:
Avoid discharge into the environment.

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Section 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Light brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Melting point/range: No data available
Boiling point/range (°C): 110-250°C
Flash point (°C): >70°C
Evaporation rate: No data available
Flammability (solid, gas): No data available
Ignition temperature (°C): No data available
Upper/lower flammability/explosive limits: No data available
Vapour pressure: 1-3.7 kPa(37.8°C)
(VAP#64742-47-8)
Vapour density: No data available
Density (20°C): 0.77-0.85 g/cm³(15°C)
(CAS#64742-47-8)
Water solubility (g/l): Insoluble in water
n-Octanol/Water (log Po/w): No data available
Auto-ignition temperature: 220-250 °C(ca. 101.325 kPa)
(CAS#64742-47-8)
Decomposition temperature: No data available
Viscosity: 13 cSt(20°C)

9.2 Physical hazards:
Not classified.

9.3 Other information:
Fat solubility(solvent– oil to be specified) etc: Not available
Bulk Density: Not available
Dissociation constant in water( pKa): Not available
Oxidation-reduction Potential: Not available
Surface tension: Not available
Molecular Formula: Mixture (Not Applicable)
Molecular Weight: Mixture (Not Applicable)
Specific Gravity: 0.82-0.85 (20°C)

Section 10 STABILITY AND RELIABILITY

10.1 Reactivity:
Stable under recommended transport or storage conditions.

10.2 Chemical stability:
Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions:
No dangerous reactions known.

10.4 Conditions to avoid:
Incompatible materials. Elevated temperatures and sources of ignition.

10.5 Incompatible materials:
Oxidising agents.

10.6 Hazardous decomposition products:
Oxides of carbon and nitrogen, smoke and other toxic fumes.

### Section 11 TOXICOLOGICAL INFORMATION

#### 11.1 Toxicokinetics, metabolism and distribution
Not available.

#### 11.2 Information on toxicological effects

**Acute toxicity:**
Distillates (petroleum), hydrotreated light (CAS#64742-47-8):
- LD$_{50}$ (Oral, Rat): > 5000 mg/kg bw
- LD$_{50}$ (Dermal, Rabbit): > 2000 mg/kg bw
- LC$_{50}$ (Inhalation, Rat): > 5.28 mg/L air (analytical)

**Skin corrosion/Irritation:** No data available.

**Serious eye damage/irritation:** No data available.

**Respiratory or skin sensitization:** No data available.

**Germ cell mutagenicity:** No data available.

**Carcinogenicity:** No data available.

**Reproductive toxicity:** No data available.

**STOT- single exposure:** No data available.

**STOT-repeated exposure:** No data available.

**Aspiration hazard:** May be fatal if swallowed and enters airways.

### Section 12 ECOLOGICAL INFORMATION

**Toxicity:**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Time</th>
<th>Species</th>
<th>Method</th>
<th>Evaluation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>N/A</td>
<td>96h</td>
<td>Fish</td>
<td>OECD 203</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>N/A</td>
<td>48h</td>
<td>Daphnia</td>
<td>OECD 202</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>N/A</td>
<td>72h</td>
<td>Algae</td>
<td>OECD 201</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT&vPvB assessment:** No data available.

**Other adverse effects:** No data available.

### Section 13 DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods
Contact a licensed professional waste disposal service. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packing must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner.

### Section 14. TRANSPORT INFORMATION
Section 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant regulations: No data available.

Chemical Safety Assessment Carried Out? YES [ ] NO [ ] X

Section 16 OTHER INFORMATION

16.1 Indication of changes
Version 2.1 amended by EU No 453/2010

16.2 Relevant R-phrases (number and full text):
R65 Harmful: may cause lung damage if swallowed.

16.3 Legal Disclaimer:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.

- End -