**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
  - Trade name: ASPEN BIO ENGINE OIL
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - Professional use of lubricants and greases in vehicles or machines
  - Industrial use of lubricants and greases in vehicles or machinery
  - Private use of lubricants and greases in vehicles or machines
  - According to the generic exposure scenarios of the ATIEL / ATC on the use of lubricants (V1.0, 07.01.2013)
  - See details of exposure scenarios in Annex
- **Application of the substance / the mixture**
  - Only for proper handling.
  - Engine oil
- **1.3 Details of the supplier of the safety data sheet**
  - Manufacturer/Supplier: Lantmännen Aspen
    - Iberovägen 2
    - SE-438 Hindäs
    - Phone: +46 301 23 00 00
    - Fax: +46 301 23 00 99
  - Further information obtainable from: aspensds@lantmannen.com
- **1.4 Emergency telephone number:**
  - In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - Classification according to Regulation (EC) No 1272/2008
    - The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008 Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void
- **Additional information:**
  - Contains C14-16-18 Alkylphenol. May produce an allergic reaction.
  - Safety data sheet available on request.
- **2.3 Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.2 Chemical characterisation: Mixtures**
  - **Description:** Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: T000172-11-1</th>
<th>Pentadecane, 7-methylene mixed with 1-tetradecene, dimers and trimers, hydrogenated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-0000000547-72</td>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td>EC number: 700-184-9</td>
<td>25-50%</td>
</tr>
<tr>
<td>CAS: 72623-86-0</td>
<td>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</td>
</tr>
<tr>
<td>EINECS: 276-737-9</td>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td>Index number: 649-482-00-X</td>
<td>1-2.5%</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119474878-16</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 2)
Trade name: ASPEN BIO ENGINE OIL

<table>
<thead>
<tr>
<th>CAS: 72623-87-1</th>
<th>Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</th>
<th>1-2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 276-738-4</td>
<td>Index number: 649-483-00-5</td>
<td>Asp. Tox. ´f, ´H304</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119474889-13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 64742-54-7</th>
<th>Distillates (petroleum), hydrotreated heavy paraffinic</th>
<th>1-2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 265-157-1</td>
<td>Index number: 649-467-00-8</td>
<td>Asp. Tox. ´f, ´H304</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119484627-25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
Note L: The classification as carcinogen does not apply because the mixture (or substance) contains less than 3% dimethyl sulfoxide extract (DMSO), measured according to IP 346. For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Not required.

6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
Trade name: ASPEN BIO ENGINE OIL

· Further information about storage conditions: None.
· Storage class: 10
· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see section 7.

· 8.1 Control parameters
  · Ingredients with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**DNELs**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Inhalative DNEL</th>
<th>Workers / Local Effects / Long-term</th>
<th>General population / Local effects / Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</td>
<td>5.4 mg/m3/8h (worker)</td>
<td>1.2 mg/m3/24h (consumer)</td>
<td></td>
</tr>
<tr>
<td>72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</td>
<td>5.4 mg/m3/8h (worker)</td>
<td>1.2 mg/m3/24h (consumer)</td>
<td></td>
</tr>
</tbody>
</table>

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls
  · Personal protective equipment:
    · General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Wash hands before breaks and at the end of work.
      Do not inhale gases / fumes / aerosols.
    · Respiratory protection:
      Not necessary if room is well-ventilated.
      Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.
    · Protection of hands:
      The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  · Material of gloves
    Protective gloves to EN374, resistant to oil in use. Standard EN 374 Level 3 control G1
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
    Fluorocarbon rubber (Viton)
    Nitrile rubber, NBR
    Recommended thickness of the material: ≥ 0.4 mm
  · Penetration time of glove material
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    For the mixture of chemicals mentioned below the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 1).
  · Eye protection:
    Goggles recommended during refilling.
  · Body protection:
    Protective work clothing

(Contd. on page 4)
### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - Form: Fluid
    - Colour: Brown
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/freezing point: Undetermined.
  - Initial boiling point and boiling range: >250 °C (DIN EN ISO 3405)
- **Flash point:** >180 °C
- **Flammability (solid, gas):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapour pressure:** Not determined.
- **Density at 20 °C:** 0.895 g/cm³ (ASTM D 4052)
- **Relative density**
  - Not determined.
- **Vapour density**
  - Not determined.
- **Evaporation rate**
  - Not determined.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: 63.1 mm²/s @ 40 °C
  - VOC (EC): 0.00 %
- **9.2 Other information**
  - No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**
    - No decomposition if used according to specifications.
  - **10.3 Possibility of hazardous reactions** No dangerous reactions known.
  - **10.4 Conditions to avoid** No further relevant information available.
  - **10.5 Incompatible materials:** No further relevant information available.
  - **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</strong></td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| **72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based** |
| Oral | LD50 5,000 mg/kg (rat) |
|      | LOAEL 125 mg/kg/24h (rat) |
| Dermal | LD50 2,000-5,000 mg/kg (rabbit) |
|      | NOAEL 150 mg/kg/24h (mouse) |
|       | 30-2,000 mg/kg/24h (rat) |
|       | 1,000 mg/kg/24h (rabbit) |
|       | LOAEL 100 mg/kg/24h (mouse) |
| Inhalative | LC50 / 4h 2.18-5.53 mg/l (rat) |
|      | NOAEC 980 mg/m3 (rat) |
|      | NOEC 220 mg/m3 (rat) |

| **64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic** |
| Oral | LD50 5,000 mg/kg (rat) |
|      | LOAEL 125 mg/kg/24h (rat) |
| Dermal | LD50 2,000-5,000 mg/kg (rabbit) |
|      | NOAEL 150 mg/kg/24h (mouse) |
|       | 30-2,000 mg/kg/24h (rat) |
|       | 1,000 mg/kg/24h (rabbit) |
|       | LOAEL 100 mg/kg/24h (mouse) |
| Inhalative | LC50 / 4h 2.18-5.53 mg/l (rat) |
|      | NOEL 220 mg/m3 (rat) |
|      | NOAEL 980 mg/m3 (rat) |

- **Primary irritant effect:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
    - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
    - **Carcinogenicity** Based on available data, the classification criteria are not met.
    - **Reproductive toxicity** Based on available data, the classification criteria are not met.
    - **STOT-single exposure** Based on available data, the classification criteria are not met.
    - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Substance</th>
<th>LL50 (aquatic invertebrates)</th>
<th>LL50 (fish)</th>
<th>LL50 (aquatic invertebrates)</th>
<th>LL50 (aquatic invertebrates)</th>
<th>LL50 (aquatic invertebrates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</td>
<td>10,000 mg/l/96h</td>
<td>100 mg/l/96h</td>
<td>10,000 mg/l/72h</td>
<td>10,000 mg/l/48h</td>
<td>10,000 mg/l/24h</td>
</tr>
<tr>
<td>72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</td>
<td>10,000 mg/l/96h</td>
<td>100 mg/l/96h</td>
<td>10,000 mg/l/72h</td>
<td>10,000 mg/l/48h</td>
<td>10,000 mg/l/24h</td>
</tr>
<tr>
<td>64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>10,000 mg/l/96h</td>
<td>100 mg/l/96h</td>
<td>10,000 mg/l/72h</td>
<td>10,000 mg/l/48h</td>
<td>10,000 mg/l/24h</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

Biodegradability according to OECD 301 B: 72% within 28 days

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Partition coefficient (log Kow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</td>
<td>&gt;6</td>
</tr>
<tr>
<td>64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>&gt;6</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Trade name: ASPEN BIO ENGINE OIL

Contact waste processors for recycling information.

- European waste catalogue
  13 02 07* readily biodegradable engine, gear and lubricating oils

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
  - ADR/RID/ADN, ADN, IMDG, IATA Void

- 14.2 UN proper shipping name
  - ADR/RID/ADN, ADN, IMDG, IATA Void

- 14.3 Transport hazard class(es)
  - ADR/RID/ADN, ADN, IMDG, IATA Class Void

- 14.4 Packing group
  - ADR/RID/ADN, IMDG, IATA Void

- 14.5 Environmental hazards: Not applicable.

- 14.6 Special precautions for user Not applicable.

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

- UN "Model Regulation": Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008. No special training instructions to ensure protection of human health and environment are required.

- Relevant phrases
  H304 May be fatal if swallowed and enters airways.

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  DNEL: Derived No-Effect Level (REACH)
Trade name: ASPEN BIO ENGINE OIL

LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Asp. Tox. 1: Aspiration hazard – Category 1

* Data compared to the previous version altered.

Annex: Exposure scenario 1

- Short title of the exposure scenario
  Industrial use of lubricants and greases in vehicles or machinery

- Sector of Use
  SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- Product category
  PC16 Heat transfer fluids
  PC17 Hydraulic fluids
  PC24 Lubricants, greases, release products

- Process category
  PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
  PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
  PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
  PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

- Environmental release category
  ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
  ERC7 Use of functional fluid at industrial site

- Description of the activities / processes covered in the Exposure Scenario
  See section 1 of the annex to the Safety Data Sheet.

- Conditions of use
  Duration and frequency 5 workdays/week.

- Physical parameters
  Physical state Fluid
  Concentration of the substance in the mixture The substance is main component.

- Other operational conditions
  Other operational conditions affecting environmental exposure No special measures required.
  Other operational conditions affecting consumer exposure Not required.
  Other operational conditions affecting consumer exposure during the use of the product Not applicable.

- Risk management measures
  Worker protection
  Organisational protective measures No special measures required.
  Technical protective measures No special measures required.
  Personal protective measures No special measures required.
  Measures for consumer protection No special measures required.

- Environmental protection measures
  Air No special measures required.
  Water No special measures required.
  Disposal measures Ensure that waste is collected and contained.
  Disposal procedures Dispose of product residues with household waste.
  Waste type Partially emptied and uncleaned packaging
  Exposure estimation
  Consumer Not relevant for this Exposure Scenario.
  Guidance for downstream users No further relevant information available.
Annex: Exposure scenario 2

- **Short title of the exposure scenario**
  Professional use of lubricants and greases in vehicles or machines

- **Sector of Use**
  SU22  Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- **Product category**
  PC16  Heat transfer fluids
  PC17  Hydraulic fluids
  PC24  Lubricants, greases, release products

- **Process category**
  PROC1  Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
  PROC2  Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
  PROC3a  Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
  PROC3b  Transfer of substance or mixture (charging and discharging) at dedicated facilities
  PROC8a  Use of functional fluids in small devices

- **Environmental release category**
  ERC9a  Widespread use of functional fluid (indoor)
  ERC9b  Widespread use of functional fluid (outdoor)

- **Description of the activities / processes covered in the Exposure Scenario**
  See section 1 of the annex to the Safety Data Sheet.

- **Conditions of use**
  Duration and frequency 5 workdays/week.

- **Physical parameters**
  Physical state Fluid
  **Concentration of the substance in the mixture** The substance is main component.
  Other operational conditions
  Other operational conditions affecting environmental exposure No special measures required.
  Other operational conditions affecting consumer exposure Not required.
  Other operational conditions affecting consumer exposure during the use of the product Not applicable.

- **Risk management measures**
  Worker protection
  Organisational protective measures No special measures required.
  Technical protective measures No special measures required.
  Personal protective measures No special measures required.
  Measures for consumer protection No special measures required.

- **Environmental protection measures**
  Air No special measures required.
  Water No special measures required.
  Disposal measures Ensure that waste is collected and contained.
  Disposal procedures Dispose of product residues with household waste.
  Waste type Partially emptied and uncleaned packaging
  Exposure estimation
  Consumer Not relevant for this Exposure Scenario.
  Guidance for downstream users No further relevant information available.

Annex: Exposure scenario 3

- **Short title of the exposure scenario** Private use of lubricants and greases in vehicles or machines

- **Sector of Use**
  SU21  Consumer uses: Private households / general public / consumers

- **Product category**
  PC24  Lubricants, greases, release products

- **Environmental release category**
  ERC9a  Widespread use of functional fluid (indoor)
ERC9b  Widespread use of functional fluid (outdoor)
- Description of the activities / processes covered in the Exposure Scenario
  See section 1 of the annex to the Safety Data Sheet.
- Conditions of use
  - Duration and frequency 5 workdays/week.
- Physical parameters
  - Physical state Fluid
- Concentration of the substance in the mixture The substance is main component.
- Other operational conditions
  - Other operational conditions affecting environmental exposure No special measures required.
  - Other operational conditions affecting consumer exposure Not required.
  - Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- Risk management measures
  - Worker protection
    - Organisational protective measures No special measures required.
    - Technical protective measures No special measures required.
    - Personal protective measures No special measures required.
    - Measures for consumer protection No special measures required.
- Environmental protection measures
  - Air No special measures required.
  - Water No special measures required.
- Disposal measures Ensure that waste is collected and contained.
- Disposal procedures Dispose of product residues with household waste.
- Waste type Partially emptied and uncleaned packaging
- Exposure estimation
  - Consumer Not relevant for this Exposure Scenario.
  - Guidance for downstream users No further relevant information available.