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

· 1.1 Product identifier
  · Trade name: Ultima Gold
  · Article number: 6013329, 6013321, 6013323, 6013326, 6013327

· 1.2 Relevant identified uses of the substance or mixture and uses advised against
  · Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    PerkinElmer Health Sciences B.V.
    Rigaweg 22
    9723 TH Groningen
    The Netherlands
    P.O. Box 5205
    9700 GE Groningen
    The Netherlands
    Phone: 0031 50 5445900
    Fax: 0031 50 5445950
    www.perkinelmer.com
  · Further information obtainable from:
    Quality Assurance, Environment, Safety & Health (QA/ESH)
    SDS.Groningen@perkinelmer.com
  · 1.4 Emergency telephone number:
    +31 50 5445971
    CHEMTREC: +1 703-527-3887

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008

  GHS08 health hazard
  · Asp. Tox. 1  H304 May be fatal if swallowed and enters airways.

  GHS05 corrosion
  · Eye Dam. 1   H318 Causes serious eye damage.

  GHS09 environment
  · Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

  GHS07

(Contd. on page 2)
Trade name: Ultima Gold

2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

· Hazard pictograms

GHS05  GHS08  GHS09

· Signal word Danger

· Hazard-determining components of labelling:
  Diisopropyl naphthalene isomers
  2-Ethylhexyl phosphate diethanolamine salt
  Sodium dioctyl sulphosuccinate

· Hazard statements
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H304 May be fatal if swallowed and enters airways.
  H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P362 Take off contaminated clothing and wash before reuse.
  P332+P313 If skin irritation occurs: Get medical advice/attention.
  P302+P352 IF ON SKIN: Wash with plenty of water.

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.

· Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 38640-62-9</th>
<th>Diisopropyl naphthalene isomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 254-052-6</td>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>
### Trade name: Ultima Gold

<table>
<thead>
<tr>
<th>CAS: 9016-45-9</th>
<th>Alkylphenol Polyglycolether</th>
<th>10-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-024-6</td>
<td>Aquatic Chronic 2, H411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td></td>
</tr>
</tbody>
</table>

| CAS: 73070-48-1 | 2-Ethylhexyl phosphate diethanolamine salt | 10-20% |
| EINECS: 277-274-5 | | |
| CAS: 777-11-7 | Sodium dioctyl sulphosuccinate | ≤2.5% |
| EINECS: 209-406-4 | | |
| CAS: 78-40-0 | Triethyl phosphate | ≤2.5% |
| EINECS: 201-114-5 | | |
| Index number: 015-013-00-7 | | |

- **Non-dangerous components**
  - CAS: 92-71-7 | 2,5-Diphenyloxazole (PPO) | ≤2.5% |
  - EINECS: 202-181-3 | | |
  - CAS: 13280-61-0 | 1,4-Bis-(2-methylstyryl)-benzene (bis-MSB) | ≤2.5% |
  - EINECS: 236-285-5 | | |

- Additional information: water, distilled, conductivity or of similar purity

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
  - **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.
    CO2, powder or water spray. Fight larger fires with water spray.

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

- **5.3 Advice for firefighters**
  - **Protective equipment:** Wear fully protective suit.
SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Keep people at a distance and stay on the windward side. Ensure adequate ventilation.

- **6.2 Environmental precautions:**
  Inform respective authorities in case of seepage into water course or sewage system. 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.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - Requirements to be met by storerooms and receptacles: Store in a cool location.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions:
      Protect from heat and direct sunlight.
      Store receptacle in fume cupboard.

- **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 item 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.
      - **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. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.
    - **Respiratory protection:** Not necessary if room is well-ventilated.
· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
  - Form: Fluid
  - Colour: Colourless
· Odour: Characteristic
· pH-value at 20 °C (68 °F): 6
· Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 290 °C (554 °F)
· Flash point: 152 °C (306 °F)
· Ignition temperature: 500 °C (932 °F)
· Self-igniting: Product is not selfigniting.
· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:
  - Lower: 0.4 Vol %
  - Upper: 4.7 Vol %
Trade name: Ultima Gold

- Density at 20 °C (68 °F): 0.98 g/cm³ (8.178 lbs/gal)
- Solubility in / Miscibility with water: Not miscible or difficult to mix.
- Solvent content:
  - Organic solvents: 0-5 %
  - Water: < 2.5 %
- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 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: Carbon monoxide

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity
  - LD/LC50 values relevant for classification:
    38640-62-9 Diisopropyl naphthalene isomers
    Oral LD50 4000 mg/kg (Rat)
  - Primary irritant effect: Irritant to skin and mucous membranes.
  - Skin corrosion/irritation Strong irritant with the danger of severe eye injury.
  - Serious eye damage/irritation No sensitising effects known.
  - Respiratory or skin sensitisation No sensitising effects known.
  - Additional toxicological information:
    The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
    Irritant

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity:
    9016-45-9 Alkylphenol Polyglycolether
    Inhalative EC50/48h 10 mg/l (Daphnia magna (grote watervlo))
    LC50 10 mg/l (andere vissen)
  - 12.2 Persistence and degradability 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.

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

SECTION 14: Transport information

· 14.1 UN-Number
· ADR, IMDG, IATA
UN3082

· 14.2 UN proper shipping name
· ADR
3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, Alkylphenol Polyglycoether)

· IMDG
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, Alkylphenol Polyglycoether), MARINE POLLUTANT

· IATA
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, Alkylphenol Polyglycoether)

· 14.3 Transport hazard class(es)
· ADR

· Class
9 (M6) Miscellaneous dangerous substances and articles.
Trade name: Ultima Gold

- Label: 9
- IMDG, IATA

- Class: 9 Miscellaneous dangerous substances and articles.
- Label: 9

14.4 Packing group
- ADR, IMDG, IATA: III

14.5 Environmental hazards:
- Marine pollutant: Yes
- Special marking (ADR): Symbol (fish and tree)
- Special marking (IATA): Symbol (fish and tree)

14.6 Special precautions for user
- Danger code (Kemler): Warning: Miscellaneous dangerous substances and articles. 90
- EMS Number: F-A,S-F

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not applicable.

- Transport/Additional information:
- ADR: Not dangerous according to the above specifications.
- Tunnel restriction code: E

- UN "Model Regulation": UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, Alkylphenol Polyglycolether), 9, III

* SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- National regulations:
  - Technical instructions (air):
    - Class Share in %
      - Water ≤2.5
      - NK 2.5

15.2 Chemical safety assessment: A Chemical Safety Assessment has not 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.

- Relevant phrases
  H302 Harmful if swallowed.
  H304 May be fatal if swallowed and enters airways.
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H319 Causes serious eye irritation.
  H410 Very toxic to aquatic life with long lasting effects.
  H411 Toxic to aquatic life with long lasting effects.

- Department issuing MSDS: Quality Assurance, Environment, Safety & Health (QA/ESH)
- Contact: SDS.Groningen@perkinelmer.com

- Abbreviations and acronyms:
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ICAO: International Civil Aviation Organisation
  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)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
  Asp. Tox. 1: Aspiration hazard, Hazard Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

- * Data compared to the previous version altered.