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

- **Product identifier**
  - **Trade name:** Pesticides Matrix Spiking Standard (1X1 mL)
  - **Part number:** CLP-200N-1

- **Relevant identified uses of the substance or mixture and uses advised against**
  Reagents and Standards for Analytical Chemical Laboratory Use

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Agilent Technologies Manufacturing GmbH & Co. KG
    Hewlett-Packard-Str.8
    76337 Waldbronn
    Germany

- **Further information obtainable from:**
  - **Telephone:** 0800 603 1000
  - **pdl-msds_author@agilent.com**
  - **Emergency telephone number:** CHEMTREC®: +(44)-870-8200418

2 Hazards identification

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

  - **GHS02 flame**
    Flam. Liq. 2 H225 Highly flammable liquid and vapour.

  - **GHS06 skull and crossbones**
    Acute Tox. 3 H331 Toxic if inhaled.

  - **GHS08 health hazard**
    STOT SE 1 H370 Causes damage to organs.

  - **GHS09 environment**
    Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

  - **GHS07**
    Acute Tox. 4 H302 Harmful if swallowed.
    Acute Tox. 4 H312 Harmful in contact with skin.

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

(Contd. on page 2)
Hazard pictograms

- GHS02
- GHS06
- GHS08
- GHS09

Signal word: Danger

Hazard-determining components of labelling:
- Methanol
- Dieldrin (ISO)
- Endrin (ISO)
- DDT (common name not adopted by ISO)

Hazard statements:
- H225: Highly flammable liquid and vapour.
- H302+H312: Harmful if swallowed or in contact with skin.
- H331: Toxic if inhaled.
- H370: Causes damage to organs.
- H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:
- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103: Read label before use.
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P278: Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P303+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- P321: Specific treatment (see on this label).
- P330: Rinse mouth.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P370+P378: In case of fire: Use for extinction: CO2, powder or water spray.
- P391: Collect spillage.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P403+P235: Store in a well-ventilated place. Keep cool.
- P405: Store locked up.
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
3 Composition/information on ingredients

· Chemical characterisation: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: 67-56-1</th>
<th>methanol</th>
<th>97.345%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-659-6</td>
<td>Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 50-29-3</th>
<th>DDT (common name not adopted by ISO)</th>
<th>0.632%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-024-3</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 1, H310; Carc. 2, H351; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 60-57-1</th>
<th>dieldrin (ISO)</th>
<th>0.632%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-484-5</td>
<td>Acute Tox. 3, H301; Acute Tox. 1, H310; Carc. 2, H351; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 72-20-8</th>
<th>endrin (ISO)</th>
<th>0.632%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-775-7</td>
<td>Acute Tox. 2, H300; Acute Tox. 3, H311; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 76-44-8</th>
<th>heptachlor (ISO)</th>
<th>0.253%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-962-3</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Carc. 2, H351; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 58-89-9</th>
<th>γ-HCH or γ-BHC</th>
<th>0.253%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-401-2</td>
<td>Acute Tox. 3, H301; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Acute Tox. 4, H332; Lact., H362</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 309-00-2</th>
<th>aldrin (ISO)</th>
<th>0.253%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 206-215-8</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Carc. 2, H351; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
</tbody>
</table>

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· Description of first aid measures
· General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

· 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:
Call for a doctor immediately.

· Information for doctor:
· Most important symptoms and effects, both acute and delayed: No further relevant information available.
5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
  - During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
  - **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Mount respiratory protective device.
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
  - Do not allow product to reach sewage system or any water course.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Open and handle receptacle with care.
  - Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
  - Keep respiratory protective device available.
- **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:**
    - Keep container tightly sealed.

(Contd. on page 5)
8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- Control parameters

- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>WEL Short-term value</th>
<th>WEL Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>333 mg/m³, 250 ppm</td>
<td>266 mg/m³, 200 ppm</td>
</tr>
</tbody>
</table>

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

- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Store protective clothing separately.
    - Avoid contact with the eyes and skin.
- Respiratory protection:
  - When used as intended with Agilent instruments the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  - Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device equipment with appropriate organic or acid gas cartridge.
- Protection of hands:
  - Although not recommended for constant contact with the chemicals or for clean up, nitrile gloves 11-13mil thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.
- Material of gloves
  - For normal use: nitrile rubber, 11-13 mil thickness
  - For direct contact with the chemical: butyl rubber, 12-15 mil thickness
- Penetration time of glove material
  - For normal use: nitrile rubber: 1 hour
  - For direct contact with the chemical: butyl rubber: > 4 hours
- Eye protection:
  - Tightly sealed goggles
9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Fluid
    - Colour: Colourless
  - Odour: Alcohol-like
  - Odour threshold: Not determined.
- pH-value: Not determined.
- Change in condition
  - Melting point/freezing point: -98 °C
  - Initial boiling point and boiling range: 64.7 °C
- Flash point: 9 °C
- Flammability (solid, gas): Not applicable.
- Ignition temperature: 455 °C
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Explosion limits:
  - Lower: 5.5 Vol %
  - Upper: 44 Vol %
- Vapour pressure at 20 °C: 100 hPa
- Density at 20 °C: 0.81999 g/cm³
- 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: Not determined.
- Solvent content:
  - Organic solvents: 97.3 %
  - VOC (EC): 97.35 %
- Solids content: 2.7 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
48.1.26 · Chemical stability
   · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
   · Possibility of hazardous reactions No dangerous reactions known.
   · Conditions to avoid No further relevant information available.
   · Incompatible materials: No further relevant information available.
   · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects
  · Acute toxicity
    Harmful if swallowed or in contact with skin.
    Toxic if inhaled.

· LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimates)</th>
<th>Oral</th>
<th>LD50</th>
<th>Dermal</th>
<th>LD50</th>
<th>Inhalative</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td></td>
<td>400 mg/kg</td>
<td></td>
<td>1,055 mg/kg</td>
<td></td>
<td>3.08 mg/L</td>
</tr>
</tbody>
</table>

67-56-1 methanol

| Oral   | LD50   | 5,628 mg/kg (rat) |
| Dermal | LD50   | 15,800 mg/kg (rabbit) |

50-29-3 DDT (common name not adopted by ISO)

| Oral   | LD50   | 87 mg/kg (rat) |
| Dermal | LD50   | 2,510 mg/kg (rat) |
|        |        | 300 mg/kg (rabbit) |

60-57-1 dieldrin (ISO)

| Oral   | LD50   | 38 mg/kg (mouse) |
| Dermal | LD50   | 38 mg/kg (rat) |
|        |        | 10 mg/kg (rat) |
|        |        | 250 mg/kg (rabbit) |

72-20-8 endrin (ISO)

| Oral   | LD50   | 3 mg/kg (rat) |
| Dermal | LD50   | 60 mg/kg (rat) |
|        |        | 60 mg/kg (rabbit) |

76-44-8 heptachlor (ISO)

| Oral   | LD50   | 40 mg/kg (rat) |
| Dermal | LD50   | 119 mg/kg (rat) |

58-89-9 γ-HCH or γ-BHC

| Oral   | LD50   | 88 mg/kg (rat) |
| Dermal | LD50   | 900 mg/kg (rat) |
|        |        | 1,560 mg/L (rat) |

309-00-2 aldrin (ISO)

| Oral   | LD50   | 39 mg/kg (rat) |

(Contd. on page 8)
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

Dermal LD50 98 mg/kg (rat)
15 mg/kg (rabbit)

- 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 (carcinogenity, 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
    Causes damage to organs.

- STOT-repeated exposure
  Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability No further relevant information available.
  - Behaviour in environmental systems:
  - Bioaccumulative potential No further relevant information available.
  - Mobility in soil No further relevant information available.
  - Ecotoxicological effects:
  - Remark: Toxic for fish

- Additional ecological information:
  - General notes:
    Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
    Also poisonous for fish and plankton in water bodies.
    Toxic for aquatic organisms
  - Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
  - Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue
  HP 3 Flammable
  HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
  HP 6 Acute Toxicity
  HP 14 Ecotoxic

(Contd. on page 9)
48.1.26

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

14 Transport information

· Not Regulated, De minimus Quantities

· UN-Number
  · ADR, IMDG, IATA
    UN1230

· UN proper shipping name
  · ADR
    1230 METHANOL solution
  · IMDG
    METHANOL solution, MARINE POLLUTANT
  · IATA
    METHANOL mixture

· Transport hazard class(es)
  · ADR
    Class 3 Flammable liquids.
    Label 3+6.1

  · IMDG
    Class 3 Flammable liquids.
    Label 3/6.1

  · IATA
    Class 3 Flammable liquids.
    Label 3 (6.1)

· Packing group
  · ADR, IMDG, IATA
    II

· Environmental hazards:
  · Marine pollutant:
    Symbol (fish and tree)
  · Special marking (ADR):
    Symbol (fish and tree)

· Special precautions for user
  · Warning: Flammable liquids.
  · Danger code (Kemler):
    336
  · EMS Number:
    F-E,S-D
  · Stowage Category
    B
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |

**Transport/Additional information:**

- **ADR**
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **Transport category**
  - 2

- **Tunnel restriction code**
  - D/E

- **IMDG**
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":**
  - UN 1230 METHANOL SOLUTION, 3 (6.1), II

### 15 Regulatory information

- **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.
  - Seveso category
    - H2 ACUTE TOXIC
    - E2 Hazardous to the Aquatic Environment
    - P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 69

| · Regulation (EU) No 649/2012 | | |
|-------------------------------|-------------------------------|
| 50-29-3 DDT (common name not adopted by ISO) | Annex I Part 3 |
| 60-57-1 dieldrin (ISO) | Annex I Part 3 |
| 72-20-8 endrin (ISO) | Annex V Part 1 |
| 76-44-8 heptachlor (ISO) | Annex I Part 3 |
| 58-89-9 γ-HCH or γ-BHC | Annex V Part 1 |
| 309-00-2 aldrin (ISO) | Annex I Part 3 |

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
16 Other information

The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- Relevant phrases
  H225 Highly flammable liquid and vapour.
  H300 Fatal if swallowed.
  H301 Toxic if swallowed.
  H310 Fatal in contact with skin.
  H311 Toxic in contact with skin.
  H312 Harmful in contact with skin.
  H331 Toxic if inhaled.
  H332 Harmful if inhaled.
  H351 Suspected of causing cancer.
  H362 May cause harm to breast-fed children.
  H370 Causes damage to organs.
  H372 Causes damage to organs through prolonged or repeated exposure.
  H373 May cause damage to organs through prolonged or repeated exposure.
  H400 Very toxic to aquatic life.
  H410 Very toxic to aquatic life with long lasting effects.

- Department issuing SDS: Document Control / Regulatory
- Contact: regulatory@ultrasci.com
- 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)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Flam. Liq. 2: Flammable liquids – Category 2
  Acute Tox. 2: Acute toxicity – Category 2
  Acute Tox. 3: Acute toxicity – Category 3
  Acute Tox. 1: Acute toxicity – Category 1
  Acute Tox. 4: Acute toxicity – Category 4
  Care. 2: Carcinogenicity – Category 2
  Lact.: Reproductive toxicity – effects on or via lactation
  STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
  STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
  STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
  Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

* Data compared to the previous version altered.