1 Identification

- **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 Australia Pty Ltd
  - 679 Springvale Road
  - Mulgrave
  - Victoria 3170, Australia
- **Further information obtainable from:**
  - Telephone: 1800 802 402
  - e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: +(61) - 290372994

2 Hazard(s) Identification

- **Classification of the substance or mixture**
  - **flame**
  - Flam. Liq. 2  H225  Highly flammable liquid and vapour.
  - **skull and crossbones**
  - Acute Tox. 3  H331  Toxic if inhaled.
  - **health hazard**
  - STOT SE 1  H370  Causes damage to organs.
  - **Acute Tox. 4  H302  Harmful if swallowed.**
  - **Acute Tox. 4  H312  Harmful in contact with skin.**

- **Label elements**
  - **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS06
    - GHS08
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

· Signal word Danger

· Hazard-determining components of labelling:
  methanol
  dieldrin (ISO)
  endrin (ISO)
  DDT (common name not adopted by ISO)

· Hazard statements
  Highly flammable liquid and vapour.
  Harmful if swallowed.
  Harmful in contact with skin.
  Toxic if inhaled.
  Causes damage to organs.

· Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Do not breathe dust/fume/gas/mist/vapours/spray.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  Rinse mouth.
  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  IF exposed: Call a POISON CENTER or doctor/physician.
  Specific measures (see on this label).
  Wash contaminated clothing before reuse.
  In case of fire: Use for extinction: CO2, powder or water spray.
  Store in a well-ventilated place. Keep container tightly closed.
  Store in a well-ventilated place. Keep cool.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Other hazards

· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

* 3 Composition and Information on Ingredients

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

· Dangerous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No.</th>
<th>Mass %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>67-56-1</td>
<td>97.345%</td>
<td>Flam. Liq. 2; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370</td>
</tr>
</tbody>
</table>
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
<th>Hazard Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-29-3 DDT</td>
<td>0.632%</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Carc. 2, H351; STOT RE 1, H372</td>
</tr>
<tr>
<td>60-57-1 dieldrin</td>
<td>0.632%</td>
<td>Acute Tox. 3, H301; Acute Tox. 1, H310; Carc. 2, H351; STOT RE 1, H372</td>
</tr>
<tr>
<td>76-44-8 heptachlor</td>
<td>0.253%</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Carc. 2, H351; STOT RE 2, H373</td>
</tr>
<tr>
<td>58-89-9 γ-HCH</td>
<td>0.253%</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; STOT RE 2, H373; Lact., H362</td>
</tr>
<tr>
<td>309-00-2 aldrin</td>
<td>0.253%</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Carc. 2, H351; STOT RE 1, H372</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:
  - 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.
  - Indication of any immediate medical attention and special treatment needed No further information available.

5 Fire Fighting 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.

(Contd. on page 4)
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

· 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.
  · Store in cool, dry conditions in well sealed receptacles.
  · Specific end use(s) No further relevant information available.

8 Exposure controls and 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:

  67-56-1 methanol

<table>
<thead>
<tr>
<th>Source</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NES</td>
<td>328 mg/m³, 250 ppm</td>
<td>262 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>Sk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WES</td>
<td>328 mg/m³, 250 ppm</td>
<td>262 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>Sk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

· Additional information: The lists valid during the making were used as basis.
48.1.26

· 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.
  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:
  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.
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

- Ignition temperature: 455 °C
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Product is not selfigniting.
- Explosion 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.
- 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
- LD/LC50 values relevant for classification:
  - ATE (Acute Toxicity Estimates)
    - Oral LD50: 400 mg/kg

(Contd. on page 7)
### 48.1.26

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>1,051 mg/kg</td>
<td>3.08 mg/L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>5,628 mg/kg (rat)</td>
<td>15,800 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-29-3 DDT (common name not adopted by ISO)</td>
<td>87 mg/kg (rat)</td>
<td>2,510 mg/kg (rat)</td>
</tr>
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</table>

<table>
<thead>
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<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-57-1 dieldrin (ISO)</td>
<td>38 mg/kg (mouse)</td>
<td>10 mg/kg (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-20-8 endrin (ISO)</td>
<td>40 mg/kg (rat)</td>
<td>119 mg/kg (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-44-8 heptachlor (ISO)</td>
<td>88 mg/kg (rat)</td>
<td>900 mg/kg (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>58-89-9 γ-HCH or γ-BHC</td>
<td>39 mg/kg (rat)</td>
<td>98 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - Skin corrosion/irritation: No irritant effect.
  - Serious eye damage/irritation: No irritating effect.
  - 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:
  - Toxic
  - Harmful

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** 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.

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

14 Transport information

- Not Regulated, De minimus Quantities
- UN-Number
  - ADG, IMDG, IATA UN1230
- UN proper shipping name
  - ADG
  - IMDG 1230 METHANOL solution
  - IATA METHANOL solution, MARINE POLLUTANT
  - IATA METHANOL mixture

- Transport hazard class(es)
  - ADG
    - Class 3 Flammable liquids.
    - Label 3+6.1
### IMDG

<table>
<thead>
<tr>
<th>Class</th>
<th>3 Flammable liquids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>3/6.1</td>
</tr>
</tbody>
</table>

### IATA

<table>
<thead>
<tr>
<th>Class</th>
<th>3 Flammable liquids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>3 (6.1)</td>
</tr>
</tbody>
</table>

### Packing group

- ADG, IMDG, IATA: II

### Environmental hazards:

- **Marine pollutant:** Symbol (fish and tree)
- **Special marking (ADG):** Symbol (fish and tree)

### Special precautions for user

- **Warning:** Flammable liquids.
- **Danger code (Kemler):** 336
- **EMS Number:** F-E,S-D
- **Stowage Category:** B
- **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:

- **ADG**
  - **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**
  - **Australian Inventory of Chemical Substances**
    * All ingredients are listed.
  - **Standard for the Uniform Scheduling of Medicines and Poisons**
    | CAS Number | Substance          | S  |
    |-------------|--------------------|----|
    | 67-56-1     | methanol          | S5, S6 |
    | 50-29-3     | DDT (common name not adopted by ISO) | S10 |
    | 60-57-1     | dieldrin (ISO)   | S6  |
    | 72-20-8     | endrin (ISO)     | S7  |
    | 76-44-8     | heptachlor (ISO) | S6  |
    | 58-89-9     | γ -HCH or γ -BHC | S2, S4, S5, S6 |
    | 309-00-2    | aldrin (ISO)     | S6  |
  - **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
  - **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.
  - **H301** Toxic if swallowed.
  - **H310** Fatal in contact with skin.
  - **H311** Toxic in contact with skin.
  - **H331** Toxic 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.

- **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
  - 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)
Trade name: Pesticides Matrix Spiking Standard (1X1 mL)

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. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 1: Acute toxicity – Category 1
Carc. 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

* Data compared to the previous version altered.