

| Product code   | Description                                          |
|----------------|------------------------------------------------------|
| <b>PSM-105</b> | <b>317 Compound Pesticide Reference Material Kit</b> |
| Components:    |                                                      |
| PSM-105-A      | GC Pesticide Standard no. 1 (1X1 mL)                 |
| PSM-105-B      | GC Pesticide Standard no. 2 (1X1 mL)                 |
| PSM-105-C      | LC Pesticide Standard no. 1 (1X1 mL)                 |
| PSM-105-D      | LC Pesticide Standard no. 2 (1X1 mL)                 |
| PSM-105-E      | LC Pesticide Standard no. 3 (1X1 mL)                 |
| PSM-105-F      | LC Pesticide Standard no. 4 (1X1 mL)                 |
| PSM-105-G      | LC Pesticide Standard no. 5 (1X1 mL)                 |
| PSM-105-H      | LC Pesticide Standard no. 6 (1X1 mL)                 |
| PSM-105-I      | LC Pesticide Standard no. 7 (1X1 mL)                 |
| PSM-105-J      | LC Pesticide Standard no. 8 (1X1 mL)                 |
| PSM-105-K      | LC Pesticide Standard no. 9 (1X1 mL)                 |
| PSM-105-L      | LC/GC Pesticide Standard no. 1 (1X1 mL)              |
| PSM-105-M      | LC/GC Pesticide Standard no. 2 (1X1 mL)              |
| PSM-105-N      | GC/LC Pesticide Standard no. 1 (1X1 mL)              |

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** GC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-A
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Eye Irrit. 2      H319 Causes serious eye irritation.

STOT SE 3      H336 May cause drowsiness or dizziness.

#### · Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

#### · Hazard pictograms



GHS02



GHS07



GHS09

#### · Signal word Danger

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**Trade name: GC Pesticide Standard no. 1 (1X1 mL)**

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**· Hazard-determining components of labelling:**

acetone

**· Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H410 Very 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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, 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.

**· vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                                                                     |         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 67-64-1      | acetone                                                                                                                                             | 99.805% |
| EINECS: 200-662-2 | ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336                                                                                         |         |
| CAS: 82657-04-3   | bifenthrin                                                                                                                                          | 0.0063% |
|                   | ⚠ Acute Tox. 2, H300; Acute Tox. 3, H331; ⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1B, H317 |         |

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|                                       |                                                                                                                                                                                          |         |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 91465-08-6<br>ELINCS: 415-130-7  | lambda-cyhalothrin<br>⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 2, H330; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312                                               | 0.0063% |
| CAS: 122453-73-0                      | chlorfenapyr<br>⚠ Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302                                                                           | 0.0063% |
| CAS: 52918-63-5<br>EINECS: 258-256-6  | deltamethrin (ISO)<br>⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312                                               | 0.0063% |
| CAS: 120068-37-3<br>ELINCS: 424-610-5 | fipronil<br>⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 3, H331; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410                                      | 0.0063% |
| CAS: 298-00-0<br>EINECS: 206-050-1    | parathion -methyl (ISO)<br>⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 2, H300; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 2, H330; ⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410 | 0.0063% |
| CAS: 56-38-2<br>EINECS: 200-271-7     | parathion (ISO)<br>⚠ Acute Tox. 2, H300; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 2, H330; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410                               | 0.0063% |
| CAS: 68359-37-5<br>EINECS: 269-855-7  | cyfluthrin (ISO)<br>⚠ Acute Tox. 2, H300; ⚠ Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410                                                                       | 0.0063% |
| CAS: 52645-53-1<br>EINECS: 258-067-9  | permethrin (ISO)<br>⚠ Aquatic Acute 1, H400; ⚠ Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; ⚠ Acute Tox. 4, H332; ⚠ Skin Sens. 1, H317                                                 | 0.0063% |

· **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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 relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.

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

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/personal protection

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

|                                                                                        |                                                                                                          |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| · <b>Ingredients with limit values that require monitoring at the workplace:</b>       |                                                                                                          |
| <b>67-64-1 acetone</b>                                                                 |                                                                                                          |
| WEL                                                                                    | Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm<br>Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm |
| · <b>Additional information:</b> The lists valid during the making were used as basis. |                                                                                                          |

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- **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 eyes.
  - 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:           | Characteristic  |
| Odour threshold: | Not determined. |
- **pH-value:** Not determined.
- **Change in condition**

|                                          |          |
|------------------------------------------|----------|
| Melting point/freezing point:            | -94.7 °C |
| Initial boiling point and boiling range: | 55 °C    |
- **Flash point:** -17 °C
- **Flammability (solid, gas):** Not applicable.

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|                                                  |                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|
| · <b>Ignition temperature:</b>                   | 465 °C                                                                                      |
| · <b>Decomposition temperature:</b>              | Not determined.                                                                             |
| · <b>Auto-ignition temperature:</b>              | Product is not selfigniting.                                                                |
| · <b>Explosive properties:</b>                   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b>                       |                                                                                             |
| <b>Lower:</b>                                    | 2.6 Vol %                                                                                   |
| <b>Upper:</b>                                    | 13 Vol %                                                                                    |
| · <b>Vapour pressure at 20 °C:</b>               | 245.3 hPa                                                                                   |
| · <b>Density at 20 °C:</b>                       | 0.791 g/cm <sup>3</sup>                                                                     |
| · <b>Relative density</b>                        | Not determined.                                                                             |
| · <b>Vapour density</b>                          | Not determined.                                                                             |
| · <b>Evaporation rate</b>                        | Not determined.                                                                             |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.                                                           |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                                                                             |
| · <b>Viscosity:</b>                              |                                                                                             |
| <b>Dynamic:</b>                                  | Not determined.                                                                             |
| <b>Kinematic:</b>                                | Not determined.                                                                             |
| · <b>Solvent content:</b>                        |                                                                                             |
| <b>Organic solvents:</b>                         | 99.8 %                                                                                      |
| <b>VOC (EC)</b>                                  | 99.82 %                                                                                     |
| <b>Solids content:</b>                           | 0.1 %                                                                                       |
| · <b>Other information</b>                       | 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** Based on available data, the classification criteria are not met.

### · LD/LC50 values relevant for classification:

#### 67-64-1 acetone

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 5,800 mg/kg (rat) |
|------|------|-------------------|

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|                                         |          |                                      |
|-----------------------------------------|----------|--------------------------------------|
| Dermal                                  | LD50     | 20,000 mg/kg (rabbit)                |
| <b>82657-04-3 bifenthrin</b>            |          |                                      |
| Oral                                    | LD50     | 55 mg/kg (rat)                       |
| Dermal                                  | LD50     | >2,000 mg/kg (rabbit)                |
| <b>91465-08-6 lambda-cyhalothrin</b>    |          |                                      |
| Oral                                    | LD50     | 56 mg/kg (rat)                       |
| Dermal                                  | LD50     | 632 mg/kg (rat)                      |
| <b>122453-73-0 chlorfenapyr</b>         |          |                                      |
| Oral                                    | LD50     | 441 mg/kg (rat)                      |
| Dermal                                  | LD50     | >2,000 mg/kg (rabbit)                |
| Inhalative                              | LC50/4 h | 1,900 mg/L (rat)                     |
| <b>52918-63-5 deltamethrin (ISO)</b>    |          |                                      |
| Oral                                    | LD50     | 9.36 mg/kg (rat)                     |
| Dermal                                  | LD50     | 2,000 mg/kg (rabbit)                 |
| <b>120068-37-3 fipronil</b>             |          |                                      |
| Oral                                    | LD50     | 97 mg/kg (rat)                       |
| Dermal                                  | LD50     | 354 mg/kg (rabbit)                   |
| Inhalative                              | LC50/4 h | 680 mg/L (rat)                       |
| <b>298-00-0 parathion -methyl (ISO)</b> |          |                                      |
| Oral                                    | LD50     | 6.01 mg/kg (rat)                     |
| Dermal                                  | LD50     | 67 mg/kg (rat)<br>300 mg/kg (rabbit) |
| <b>56-38-2 parathion (ISO)</b>          |          |                                      |
| Oral                                    | LD50     | 2 mg/kg (rat)                        |
| Dermal                                  | LD50     | 6.8 mg/kg (rat)                      |
| <b>68359-37-5 cyfluthrin (ISO)</b>      |          |                                      |
| Oral                                    | LD50     | 900 mg/kg (rat)                      |
| Dermal                                  | LD50     | >5,000 mg/kg (rat)                   |
| Inhalative                              | LC50/4 h | 530 mg/L (rat)                       |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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**  
May cause drowsiness or dizziness.
- **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.

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### 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:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
 Also poisonous for fish and plankton in water bodies.  
 Very 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 4  | Irritant - skin irritation and eye damage                 |
| HP 5  | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP 14 | Ecotoxic                                                  |

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

### 14 Transport information

#### · Not Regulated, De minimus Quantities

-

#### · UN-Number

#### · ADR, IMDG, IATA

UN1090

#### · UN proper shipping name

#### · ADR

1090 ACETONE, ENVIRONMENTALLY  
HAZARDOUS

#### · IMDG

#### · IATA

ACETONE, MARINE POLLUTANT  
ACETONE

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· **Transport hazard class(es)**

· **ADR, IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **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):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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 1090 ACETONE, 3, II, ENVIRONMENTALLY  
HAZARDOUS

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### 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**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Regulation (EU) No 649/2012**

|             |                         |                                                    |
|-------------|-------------------------|----------------------------------------------------|
| 122453-73-0 | chlorfenapyr            | Annex I Part 1<br>Annex I Part 2                   |
| 298-00-0    | parathion -methyl (ISO) | Annex I Part 1<br>Annex I Part 2<br>Annex I Part 3 |
| 56-38-2     | parathion (ISO)         | Annex I Part 1<br>Annex I Part 3                   |
| 68359-37-5  | cyfluthrin (ISO)        | Annex I Part 1                                     |
| 52645-53-1  | permethrin (ISO)        | Annex I Part 1                                     |

· **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.

H226 Flammable liquid and vapour.

H300 Fatal if swallowed.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

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

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**· 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  
Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 2: Acute toxicity – Category 2  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 3: Acute toxicity – Category 3  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Carc. 2: Carcinogenicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
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

**· \* Data compared to the previous version altered.**

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** GC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-B
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Eye Irrit. 2      H319 Causes serious eye irritation.

STOT SE 3      H336 May cause drowsiness or dizziness.

#### · Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

#### · Hazard pictograms



GHS02



GHS07



GHS09

#### · Signal word Danger

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GB

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 1)

**Hazard-determining components of labelling:**

acetone

**Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H410 Very 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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, 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.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

**Dangerous components:**

|                   |                                                                                            |         |
|-------------------|--------------------------------------------------------------------------------------------|---------|
| CAS: 67-64-1      | acetone                                                                                    | 99.78%  |
| EINECS: 200-662-2 | ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336                                |         |
| CAS: 5598-13-0    | chlorpyrifos-methyl                                                                        | 0.0063% |
| EINECS: 227-011-5 | ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317 |         |

(Contd. on page 3)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 2)

|                                      |                                                                                                                                                       |         |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 563-12-2<br>EINECS: 209-242-3   | ethion (ISO)<br>⚠ Acute Tox. 3, H301; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410;<br>⚠ Acute Tox. 4, H312                                       | 0.0063% |
| CAS: 25311-71-1<br>EINECS: 246-814-1 | isofenphos (ISO)<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; ⚠ Aquatic Acute 1, H400;<br>Aquatic Chronic 1, H410                                     | 0.0063% |
| CAS: 13071-79-9<br>EINECS: 235-963-8 | S-tert-butylthiomethyl O,O-diethylphosphorodithioate<br>⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; ⚠ Aquatic Acute 1, H400;<br>Aquatic Chronic 1, H410 | 0.0063% |
| CAS: 79538-32-2                      | tefluthrin<br>⚠ Acute Tox. 2, H300; Acute Tox. 2, H310; Acute Tox. 3, H331; ⚠ Aquatic<br>Acute 1, H400; Aquatic Chronic 1, H410                       | 0.0063% |

· **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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 relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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).

(Contd. on page 4)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 3)

- 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.
- Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- **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/personal protection

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

|                                                                                  |                                                                                                          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| · <b>Ingredients with limit values that require monitoring at the workplace:</b> |                                                                                                          |
| <b>67-64-1 acetone</b>                                                           |                                                                                                          |
| WEL                                                                              | Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm<br>Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm |

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

- **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 eyes.
- 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.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 4)

**· 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:** Characteristic

**· Odour threshold:** Not determined.

**· pH-value:** Not determined.

**· Change in condition**

**Melting point/freezing point:** -94.7 °C

**Initial boiling point and boiling range:** 55 °C

**· Flash point:** -17 °C

**· Flammability (solid, gas):** Not applicable.

**· Ignition temperature:** 465 °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:** 2.6 Vol %

**Upper:** 13 Vol %

**· Vapour pressure at 20 °C:** 245.3 hPa

**· Density at 20 °C:** 0.791 g/cm<sup>3</sup>

**· Relative density** Not determined.

**· Vapour density** Not determined.

(Contd. on page 6)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 5)

|                                                  |                                            |
|--------------------------------------------------|--------------------------------------------|
| · <b>Evaporation rate</b>                        | Not determined.                            |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.          |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |                                            |
| <b>Dynamic:</b>                                  | Not determined.                            |
| <b>Kinematic:</b>                                | Not determined.                            |
| · <b>Solvent content:</b>                        |                                            |
| <b>Organic solvents:</b>                         | 99.8 %                                     |
| <b>VOC (EC)</b>                                  | 99.82 %                                    |
| <b>Solids content:</b>                           | 0.2 %                                      |
| · <b>Other information</b>                       | 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** Based on available data, the classification criteria are not met.

### · LD/LC50 values relevant for classification:

#### 67-64-1 acetone

|        |      |                       |
|--------|------|-----------------------|
| Oral   | LD50 | 5,800 mg/kg (rat)     |
| Dermal | LD50 | 20,000 mg/kg (rabbit) |

#### 5598-13-0 chlorpyrifos-methyl

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,828 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | >670 mg/L (rat)       |

#### 563-12-2 ethion (ISO)

|            |          |                |
|------------|----------|----------------|
| Oral       | LD50     | 13 mg/kg (rat) |
| Dermal     | LD50     | 62 mg/kg (rat) |
| Inhalative | LC50/4 h | 864 mg/L (rat) |

#### 25311-71-1 isofenphos (ISO)

|        |      |                    |
|--------|------|--------------------|
| Oral   | LD50 | 21.1 mg/kg (rat)   |
| Dermal | LD50 | 162 mg/kg (rabbit) |

(Contd. on page 7)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 6)

|                                                                        |          |                 |
|------------------------------------------------------------------------|----------|-----------------|
| Inhalative                                                             | LC50/4 h | 144 mg/L (rat)  |
| <b>13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate</b> |          |                 |
| Oral                                                                   | LD50     | 4.5 mg/kg (rat) |
| <b>79538-32-2 tefluthrin</b>                                           |          |                 |
| Dermal                                                                 | LD50     | 148 mg/kg (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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**  
May cause drowsiness or dizziness.
- **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:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Also poisonous for fish and plankton in water bodies.  
Very 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.

|                                 |                                           |
|---------------------------------|-------------------------------------------|
| <b>European waste catalogue</b> |                                           |
| HP 3                            | Flammable                                 |
| HP 4                            | Irritant - skin irritation and eye damage |

(Contd. on page 8)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 7)

|       |                                                           |
|-------|-----------------------------------------------------------|
| HP 5  | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP 14 | Ecotoxic                                                  |

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

## 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1090

· **UN proper shipping name**

· **ADR**

1090 ACETONE, ENVIRONMENTALLY  
HAZARDOUS

· **IMDG**

· **IATA**

ACETONE, MARINE POLLUTANT  
ACETONE

· **Transport hazard class(es)**

· **ADR, IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **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):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 8)

**· 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 1090 ACETONE, 3, II, ENVIRONMENTALLY  
HAZARDOUS

## 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**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**· Regulation (EU) No 649/2012**

|            |                                                      |                |
|------------|------------------------------------------------------|----------------|
| 563-12-2   | ethion (ISO)                                         | Annex I Part 1 |
| 13071-79-9 | S-tert-butylthiomethyl O,O-diethylphosphorodithioate | Annex I Part 1 |

**· 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.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

(Contd. on page 10)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 9)

H331 Toxic if inhaled.  
H336 May cause drowsiness or dizziness.  
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. 4: Acute toxicity – Category 4

Acute Tox. 1: Acute toxicity – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

· **\* Data compared to the previous version altered.**

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-C
- **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.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

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



GHS02



GHS07



GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
acetonitrile

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 1 (1X1 mL)**

(Contd. of page 1)

**· Hazard statements**

- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P391 Collect spillage.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                        |         |
|-------------------|--------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                           | 99.827% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |
| CAS: 80844-07-1   | etofenprox                                                                                             | 0.0064% |
| ELINCS: 407-980-2 | ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                                       |         |

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 1 (1X1 mL)**

(Contd. of page 2)

|                                     |                                                                                                                                                                                    |         |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 63-25-2<br>EINECS: 200-555-0   | carbaryl (ISO)<br>☠ Carc. 2, H351; ☠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332                                                                               | 0.0064% |
| CAS: 2212-67-1<br>EINECS: 218-661-0 | molinate (ISO)<br>☠ Carc. 2, H351; Repr. 2, H361f; STOT RE 2, H373; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317 | 0.0064% |

· **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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.

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## Safety data sheet

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**Trade name: LC Pesticide Standard no. 1 (1X1 mL)**

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- **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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/personal protection

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

|                                                                                |
|--------------------------------------------------------------------------------|
| <b>Ingredients with limit values that require monitoring at the workplace:</b> |
|--------------------------------------------------------------------------------|

|                             |
|-----------------------------|
| <b>75-05-8 acetonitrile</b> |
|-----------------------------|

|     |                                                                                                    |
|-----|----------------------------------------------------------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm<br>Long-term value: 68 mg/m <sup>3</sup> , 40 ppm |
|-----|----------------------------------------------------------------------------------------------------|

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

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- **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:** Aromatic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

|                                          |        |
|------------------------------------------|--------|
| Melting point/freezing point:            | -46 °C |
| Initial boiling point and boiling range: | 81 °C  |
- **Flash point:** 2 °C
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** 525 °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: | 4.4 Vol % |
| Upper: | 16 Vol %  |
- **Vapour pressure at 20 °C:** 0 hPa
- **Density at 20 °C:** 0.786 g/cm<sup>3</sup>
- **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.

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**Trade name: LC Pesticide Standard no. 1 (1X1 mL)**

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|                           |                                            |
|---------------------------|--------------------------------------------|
| · <b>Viscosity:</b>       |                                            |
| <b>Dynamic:</b>           | Not determined.                            |
| <b>Kinematic:</b>         | Not determined.                            |
| · <b>Solvent content:</b> |                                            |
| <b>Organic solvents:</b>  | 0.0 %                                      |
| <b>VOC (EC)</b>           | 0.01 %                                     |
| · <b>Solids content:</b>  |                                            |
| <b>Other information</b>  | 0.1 %                                      |
|                           | 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**  
Harmful if swallowed.

#### · **LD/LC50 values relevant for classification:**

##### **ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,322 mg/kg (rat) |
|------|------|-------------------|

##### **75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

##### **80844-07-1 etofenprox**

|        |      |                     |
|--------|------|---------------------|
| Oral   | LD50 | >42,800 mg/kg (rat) |
| Dermal | LD50 | >2,140 mg/kg (rat)  |

##### **63-25-2 carbaryl (ISO)**

|        |      |                       |
|--------|------|-----------------------|
| Oral   | LD50 | 230 mg/kg (rat)       |
| Dermal | LD50 | >2,000 mg/kg (rabbit) |

##### **2212-67-1 molinate (ISO)**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 369 mg/kg (rat)      |
| Dermal | LD50 | 3,536 mg/kg (rabbit) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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** Based on available data, the classification criteria are not met.
- **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.
- **Ecotoxical 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 4  | Irritant - skin irritation and eye damage |
| HP 6  | Acute Toxicity                            |
| HP 14 | Ecotoxic                                  |

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

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### 14 Transport information

· Not Regulated, De minimus Quantities

-

· UN-Number

· ADR, IMDG, IATA

UN1648

· UN proper shipping name

· ADR

1648 ACETONITRILE, ENVIRONMENTALLY  
HAZARDOUS

· IMDG

· IATA

ACETONITRILE, MARINE POLLUTANT  
ACETONITRILE

· Transport hazard class(es)

· ADR, IMDG



· Class

3 Flammable liquids.

· Label

3

· IATA



· Class

3 Flammable liquids.

· Label

3

· 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):

33

· EMS Number:

F-E,S-E

· Stowage Category

B

· 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

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- |                                                                                                                                                      |                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul> | <p>1L<br/>Code: E2<br/>Maximum net quantity per inner packaging: 30 ml<br/>Maximum net quantity per outer packaging: 500 ml</p> |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>                                                                    | <p>UN 1648 ACETONITRILE, 3, II,<br/>ENVIRONMENTALLY HAZARDOUS</p>                                                               |

### 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**  
E2 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

|                                    |                |                                  |
|------------------------------------|----------------|----------------------------------|
| <b>Regulation (EU) No 649/2012</b> |                |                                  |
| 63-25-2                            | carbaryl (ISO) | Annex I Part 1<br>Annex I Part 2 |

- **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.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H351 Suspected of causing cancer.  
H361f Suspected of damaging fertility.  
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

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**Safety data sheet**  
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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. 4: Acute toxicity – Category 4  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Carc. 2: Carcinogenicity – Category 2  
Repr. 2: Reproductive toxicity – Category 2  
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.**

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# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-D
- **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.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02      GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

acetonitrile

- **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 2 (1X1 mL)**

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H412 Harmful 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

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

**Dangerous components:**

|                                      |                                                                                                                                                 |         |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8<br>EINECS: 200-835-2    | acetonitrile<br>⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319                          | 99.814% |
| CAS: 16752-77-5<br>EINECS: 240-815-0 | methomyl<br>⚠ Acute Tox. 2, H300; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                                              | 0.0064% |
| CAS: 23103-98-2<br>EINECS: 245-430-1 | pirimicarb<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Carc. 2, H351; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317 | 0.0064% |
| CAS: 142459-58-3                     | flufenacet (ISO)<br>⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317               | 0.0064% |

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## Safety data sheet

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**Trade name: LC Pesticide Standard no. 2 (1X1 mL)**

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**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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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.

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Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 2 (1X1 mL)**

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### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/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:**

##### **75-05-8 acetonitrile**

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

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## Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 2 (1X1 mL)**

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- **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:           | Aromatic        |
| Odour threshold: | Not determined. |

· pH-value: Not determined.

##### · Change in condition

|                                          |        |
|------------------------------------------|--------|
| Melting point/freezing point:            | -46 °C |
| Initial boiling point and boiling range: | 81 °C  |

· Flash point: 2 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 525 °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: | 4.4 Vol % |
| Upper: | 16 Vol %  |

· Vapour pressure at 20 °C: 0 hPa

|                   |                         |
|-------------------|-------------------------|
| Density at 20 °C: | 0.786 g/cm <sup>3</sup> |
| 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.

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|                                              |                                            |
|----------------------------------------------|--------------------------------------------|
| <b>Kinematic:</b>                            | Not determined.                            |
| · <b>Solvent content:</b><br><b>VOC (EC)</b> | 0.00 %                                     |
| <b>Solids content:</b>                       | 0.2 %                                      |
| · <b>Other information</b>                   | 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**  
Harmful if swallowed.

#### · **LD/LC50 values relevant for classification:**

##### **ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,322 mg/kg (rat) |
|------|------|-------------------|

##### **75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

##### **16752-77-5 methomyl**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 17 mg/kg (rat)       |
| Dermal | LD50 | 5,880 mg/kg (rabbit) |

##### **23103-98-2 pirimicarb**

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | >500 mg/kg (rat) |
|------|------|------------------|

##### **142459-58-3 flufenacet (ISO)**

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | 589 mg/kg (rat)    |
| Dermal     | LD50     | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | >3,700 mg/L (rat)  |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.

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### according to 1907/2006/EC, Article 31

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- **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.
- **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:** Harmful to 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.  
Harmful to 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 4  | Irritant - skin irritation and eye damage |
| HP 6  | Acute Toxicity                            |
| HP 14 | Ecotoxic                                  |

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

## 14 Transport information

- **Not Regulated, De minimus Quantities**

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**Trade name: LC Pesticide Standard no. 2 (1X1 mL)**

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|                                                                                   |                                                                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · UN-Number                                                                       | UN1648                                                                                                          |
| · ADR, IMDG, IATA                                                                 |                                                                                                                 |
| · UN proper shipping name                                                         | 1648 ACETONITRILE                                                                                               |
| · ADR                                                                             | ACETONITRILE                                                                                                    |
| · IMDG, IATA                                                                      |                                                                                                                 |
| · Transport hazard class(es)                                                      |                                                                                                                 |
| · ADR, IMDG, IATA                                                                 |                                                                                                                 |
|  |                                                                                                                 |
| · Class                                                                           | 3 Flammable liquids.                                                                                            |
| · Label                                                                           | 3                                                                                                               |
| · Packing group                                                                   |                                                                                                                 |
| · ADR, IMDG, IATA                                                                 | II                                                                                                              |
| · Environmental hazards:                                                          | Not applicable.                                                                                                 |
| · Special precautions for user                                                    | Warning: Flammable liquids.                                                                                     |
| · Danger code (Kemler):                                                           | 33                                                                                                              |
| · EMS Number:                                                                     | F-E, <u>S-E</u>                                                                                                 |
| · Stowage Category                                                                | B                                                                                                               |
| · 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<br>Maximum net quantity per inner packaging: 30 ml<br>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<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation":                                                          | UN 1648 ACETONITRILE, 3, 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 P5c FLAMMABLE LIQUIDS

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Regulation (EU) No 649/2012**

16752-77-5 methomyl

Annex I Part 1

- **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.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H351 Suspected of causing cancer.
- 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. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

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 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **\* Data compared to the previous version altered.**

## Safety data sheet

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Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 3 (1X1 mL)
- **Part number:** PSM-105-E
- **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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

#### · **Label elements**

#### · **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

#### · **Hazard pictograms**



GHS02 GHS07

#### · **Signal word** Danger

#### · **Hazard-determining components of labelling:**

acetonitrile

#### · **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

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#### · 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

#### · Chemical characterisation: Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

#### · Dangerous components:

|                   |                                                                                                        |         |
|-------------------|--------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                           | 99.846% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |

- **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.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately rinse with water.

#### · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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.

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### 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:**

**75-05-8 acetonitrile**

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

· **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 eyes.

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

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|                                                                                                                         |                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| · <b>Odour:</b>                                                                                                         | Aromatic                                                                                    |
| · <b>Odour threshold:</b>                                                                                               | Not determined.                                                                             |
| · <b>pH-value:</b>                                                                                                      | Not determined.                                                                             |
| · <b>Change in condition</b><br><b>Melting point/freezing point:</b><br><b>Initial boiling point and boiling range:</b> | -46 °C<br>81 °C                                                                             |
| · <b>Flash point:</b>                                                                                                   | 2 °C                                                                                        |
| · <b>Flammability (solid, gas):</b>                                                                                     | Not applicable.                                                                             |
| · <b>Ignition temperature:</b>                                                                                          | 525 °C                                                                                      |
| · <b>Decomposition temperature:</b>                                                                                     | Not determined.                                                                             |
| · <b>Auto-ignition temperature:</b>                                                                                     | Product is not selfigniting.                                                                |
| · <b>Explosive properties:</b>                                                                                          | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b><br><b>Lower:</b><br><b>Upper:</b>                                                            | 4.4 Vol %<br>16 Vol %                                                                       |
| · <b>Vapour pressure at 20 °C:</b>                                                                                      | 0 hPa                                                                                       |
| · <b>Density at 20 °C:</b><br>· <b>Relative density</b><br>· <b>Vapour density</b><br>· <b>Evaporation rate</b>         | 0.786 g/cm <sup>3</sup><br>Not determined.<br>Not determined.<br>Not determined.            |
| · <b>Solubility in / Miscibility with water:</b>                                                                        | Not miscible or difficult to mix.                                                           |
| · <b>Partition coefficient: n-octanol/water:</b>                                                                        | Not determined.                                                                             |
| · <b>Viscosity:</b><br><b>Dynamic:</b><br><b>Kinematic:</b>                                                             | Not determined.<br>Not determined.                                                          |
| · <b>Solvent content:</b><br><b>VOC (EC)</b>                                                                            | 0.00 %                                                                                      |
| <b>Solids content:</b><br>· <b>Other information</b>                                                                    | 0.1 %<br>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.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed.

· **LD/LC50 values relevant for classification:**
**ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,322 mg/kg (rat) |
|------|------|-------------------|

**75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

· **Primary irritant effect:**

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **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** Based on available data, the classification criteria are not met.

· **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.

· **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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

GB

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 3 (1X1 mL)**

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### 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 4 | Irritant - skin irritation and eye damage |
| HP 6 | Acute Toxicity                            |

· **Uncleaned packaging:**

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

1648 ACETONITRILE

· **IMDG, IATA**

ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class**

3 Flammable liquids.

· **Label**

3

· **Packing group**

· **ADR, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids.

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

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### according to 1907/2006/EC, Article 31

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|                                   |                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>       | 2                                                                                                               |
| · <b>Tunnel restriction code</b>  | D/E                                                                                                             |
| · <b>IMDG</b>                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>   | UN 1648 ACETONITRILE, 3, 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** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

### · **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

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**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 3 (1X1 mL)**

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· **\* Data compared to the previous version altered.**

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GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 4 (1X1 mL)
- **Part number:** PSM-105-F
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

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



GHS02



GHS07



GHS09

- **Signal word** Danger

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

(Contd. of page 1)

**· Hazard-determining components of labelling:**

acetonitrile

**· Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H410 Very 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.

P233 Keep container tightly closed.

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.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 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/information on ingredients

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

**· Dangerous components:**

|                                      |                                                                                                                                                                   |         |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8<br>EINECS: 200-835-2    | acetonitrile<br>⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319                                            | 99.802% |
| CAS: 96489-71-3<br>ELINCS: 405-700-3 | 2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | 0.0064% |

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

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|                                      |                                                                                                                                                                                                     |         |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 71751-41-2                      | abamectin (combination of avermectin B1a and avermectin B1b) (ISO)<br>⚠ Acute Tox. 2, H300; Acute Tox. 1, H330; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | 0.0064% |
| CAS: 65907-30-4<br>EINECS: 265-974-3 | furathiocarb<br>⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317        | 0.0064% |
| CAS: 103361-09-7                     | flumioxazin (ISO)<br>⚠ Repr. 1B, H360D; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                                                                                            | 0.0064% |

· **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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).

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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(Contd. of page 3)

- 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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- **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/personal protection

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

|                                                                                  |                                                  |
|----------------------------------------------------------------------------------|--------------------------------------------------|
| · <b>Ingredients with limit values that require monitoring at the workplace:</b> |                                                  |
| <b>75-05-8 acetonitrile</b>                                                      |                                                  |
| WEL                                                                              | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|                                                                                  | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

- **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 eyes.

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

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

(Contd. of page 4)

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:** Aromatic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: -46 °C

Initial boiling point and boiling range: 81 °C

· **Flash point:** 2 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 525 °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: 4.4 Vol %

Upper: 16 Vol %

· **Vapour pressure at 20 °C:** 0 hPa

· **Density at 20 °C:** 0.786 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

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|                                                  |                                            |
|--------------------------------------------------|--------------------------------------------|
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.          |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |                                            |
| <b>Dynamic:</b>                                  | Not determined.                            |
| <b>Kinematic:</b>                                | Not determined.                            |
| · <b>Solvent content:</b>                        |                                            |
| <b>VOC (EC)</b>                                  | 0.00 %                                     |
| · <b>Solids content:</b>                         | 0.2 %                                      |
| · <b>Other information</b>                       | 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**  
Harmful if swallowed.

### · **LD/LC50 values relevant for classification:**

#### **ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,323 mg/kg (rat) |
|------|------|-------------------|

#### **75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

#### **96489-71-3 2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 205 mg/kg (mouse)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 620 mg/L (rat)        |

#### **71751-41-2 abamectin (combination of avermectin B1a and avermectin B1b) (ISO)**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1.5 mg/kg (rat)       |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 1,100 mg/L (rat)      |

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

(Contd. of page 6)

**65907-30-4 furathiocarb**

|                                      |      |                    |
|--------------------------------------|------|--------------------|
| Oral                                 | LD50 | 53 mg/kg (rat)     |
| <b>103361-09-7 flumioxazin (ISO)</b> |      |                    |
| Oral                                 | LD50 | >5,000 mg/kg (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.
- **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:** Very 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.  
Very 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.

|                                 |                                           |
|---------------------------------|-------------------------------------------|
| <b>European waste catalogue</b> |                                           |
| HP 3                            | Flammable                                 |
| HP 4                            | Irritant - skin irritation and eye damage |
| HP 6                            | Acute Toxicity                            |

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

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HP 14 Ecotoxic

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

1648 ACETONITRILE, ENVIRONMENTALLY  
HAZARDOUS

· **IMDG**

· **IATA**

ACETONITRILE, MARINE POLLUTANT  
ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **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):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

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**· Transport/Additional information:**
**· ADR**

- Limited quantities (LQ)
- Excepted quantities (EQ)

1L

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)
- Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· UN "Model Regulation":**

UN 1648 ACETONITRILE, 3, II,  
ENVIRONMENTALLY HAZARDOUS

## 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**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**· Regulation (EU) No 649/2012**

65907-30-4 furathiocarb

Annex I Part 1

**· 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.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

(Contd. on page 10)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 4 (1X1 mL)**

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- H332 Harmful if inhaled.
- H360D May damage the unborn child.
- H361d Suspected of damaging the unborn child.
- 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. 4: Acute toxicity – Category 4

Acute Tox. 1: Acute toxicity – Category 1

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1B: Reproductive toxicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

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

· **\* Data compared to the previous version altered.**

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 5 (1X1 mL)
- **Part number:** PSM-105-G
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

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



GHS02



GHS07



GHS09

- **Signal word** Danger

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**Trade name: LC Pesticide Standard no. 5 (1X1 mL)**

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**· Hazard-determining components of labelling:**

acetonitrile

**· Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H410 Very 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.

P233 Keep container tightly closed.

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.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 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/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                                                                                                                                                                                            |         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                                                                                                                                                                                               | 99.782% |
| EINECS: 200-835-2 |  Flam. Liq. 2, H225;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |

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|                                       |                                                                                                                                                                                |         |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 101463-69-8<br>ELINCS: 417-680-3 | flufenoxuron<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H332                                                                                         | 0.0064% |
| CAS: 41198-08-7<br>EINECS: 255-255-2  | O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332 | 0.0064% |
| CAS: 13593-03-8<br>EINECS: 237-031-6  | quinalphos (ISO)<br>⚠ Acute Tox. 3, H301; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312                                           | 0.0064% |
| CAS: 121-75-5<br>EINECS: 204-497-7    | malathion (ISO)<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317                                                                  | 0.0064% |
| CAS: 22781-23-3<br>EINECS: 245-216-8  | bendiocarb (ISO)<br>⚠ Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                             | 0.0064% |
| CAS: 2310-17-0<br>EINECS: 218-996-2   | phosalone<br>⚠ Acute Tox. 3, H301; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Sens. 1, H317                              | 0.0064% |
| CAS: 24017-47-8<br>EINECS: 245-986-5  | triazophos (ISO)<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312                                           | 0.0064% |
| CAS: 2597-03-7<br>EINECS: 219-997-0   | phenthoate (ISO)<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312                                                                 | 0.0064% |
| CAS: 14816-18-3<br>EINECS: 238-887-3  | phoxim (ISO)<br>⚠ Acute Tox. 3, H311; ⚠ Repr. 2, H361f; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317                             | 0.0064% |

· **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.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

#### · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

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### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/personal protection

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

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### · Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

##### 75-05-8 acetonitrile

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

### · 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 eyes.

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: Aromatic

· Odour threshold: Not determined.

· pH-value: Not determined.

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|                                                  |                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|
| · <b>Change in condition</b>                     |                                                                                             |
| Melting point/freezing point:                    | -46 °C                                                                                      |
| Initial boiling point and boiling range:         | 81 °C                                                                                       |
| · <b>Flash point:</b>                            | 2 °C                                                                                        |
| · <b>Flammability (solid, gas):</b>              | Not applicable.                                                                             |
| · <b>Ignition temperature:</b>                   | 525 °C                                                                                      |
| · <b>Decomposition temperature:</b>              | Not determined.                                                                             |
| · <b>Auto-ignition temperature:</b>              | Product is not selfigniting.                                                                |
| · <b>Explosive properties:</b>                   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b>                       |                                                                                             |
| Lower:                                           | 4.4 Vol %                                                                                   |
| Upper:                                           | 16 Vol %                                                                                    |
| · <b>Vapour pressure at 20 °C:</b>               | 0 hPa                                                                                       |
| · <b>Density at 20 °C:</b>                       | 0.786 g/cm <sup>3</sup>                                                                     |
| · <b>Relative density</b>                        | Not determined.                                                                             |
| · <b>Vapour density</b>                          | Not determined.                                                                             |
| · <b>Evaporation rate</b>                        | Not determined.                                                                             |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.                                                           |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                                                                             |
| · <b>Viscosity:</b>                              |                                                                                             |
| Dynamic:                                         | Not determined.                                                                             |
| Kinematic:                                       | Not determined.                                                                             |
| · <b>Solvent content:</b>                        |                                                                                             |
| Organic solvents:                                | 0.0 %                                                                                       |
| VOC (EC)                                         | 0.03 %                                                                                      |
| Solids content:                                  | 0.1 %                                                                                       |
| · <b>Other information</b>                       | 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.

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### 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed.

· **LD/LC50 values relevant for classification:**

**ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,323 mg/kg (rat) |
|------|------|-------------------|

**75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

**101463-69-8 flufenoxuron**

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | >3,000 mg/kg (rat) |
| Dermal     | LD50     | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | 5,000 mg/L (rat)   |

**41198-08-7 O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate**

|            |          |                   |
|------------|----------|-------------------|
| Oral       | LD50     | 620.5 mg/kg (rat) |
| Inhalative | LC50/4 h | >2.2 mg/L (rat)   |

**13593-03-8 quinalphos (ISO)**

|            |          |                  |
|------------|----------|------------------|
| Oral       | LD50     | 26 mg/kg (rat)   |
| Dermal     | LD50     | 300 mg/kg (rat)  |
| Inhalative | LC50/4 h | 330 mg/L (mouse) |

**121-75-5 malathion (ISO)**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 1,000 mg/kg (rat)    |
| Dermal | LD50 | 8,790 mg/kg (rabbit) |

**22781-23-3 bendiocarb (ISO)**

|        |      |                 |
|--------|------|-----------------|
| Oral   | LD50 | 40 mg/kg (rat)  |
| Dermal | LD50 | 566 mg/kg (rat) |

**2310-17-0 phosalone**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 85 mg/kg (rat)       |
| Dermal | LD50 | 1,000 mg/kg (rabbit) |

**24017-47-8 triazophos (ISO)**

|            |          |                   |
|------------|----------|-------------------|
| Oral       | LD50     | 57 mg/kg (rat)    |
| Dermal     | LD50     | 1,100 mg/kg (rat) |
| Inhalative | LC50/4 h | 28 mg/L (rat)     |

**2597-03-7 phenthoate (ISO)**

|            |          |                 |
|------------|----------|-----------------|
| Oral       | LD50     | 71 mg/kg (rat)  |
| Dermal     | LD50     | 700 mg/kg (rat) |
| Inhalative | LC50/4 h | 59 mg/L (rat)   |

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**14816-18-3 phoxim (ISO)**

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 300 mg/kg (rat)   |
| Dermal | LD50 | 1,000 mg/kg (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.
- **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:** Very 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.  
Very 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.

|                                   |                                           |
|-----------------------------------|-------------------------------------------|
| · <b>European waste catalogue</b> |                                           |
| HP 3                              | Flammable                                 |
| HP 4                              | Irritant - skin irritation and eye damage |
| HP 6                              | Acute Toxicity                            |

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## Safety data sheet

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**Trade name: LC Pesticide Standard no. 5 (1X1 mL)**

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HP 14 Ecotoxic

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

1648 ACETONITRILE, ENVIRONMENTALLY  
HAZARDOUS

· **IMDG**

· **IATA**

ACETONITRILE, MARINE POLLUTANT  
ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **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):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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## Safety data sheet

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**Trade name: LC Pesticide Standard no. 5 (1X1 mL)**

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**· 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 1648 ACETONITRILE, 3, II,  
ENVIRONMENTALLY HAZARDOUS

## 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**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**· Regulation (EU) No 649/2012**

|             |                  |                                  |
|-------------|------------------|----------------------------------|
| 101463-69-8 | flufenoxuron     | Annex I Part 1<br>Annex I Part 2 |
| 121-75-5    | malathion (ISO)  | Annex I Part 1                   |
| 2310-17-0   | phosalone        | Annex I Part 1<br>Annex I Part 2 |
| 24017-47-8  | triazophos (ISO) | Annex I Part 1                   |

**· 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.

H302 Harmful if swallowed.

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**Trade name: LC Pesticide Standard no. 5 (1X1 mL)**

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H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H361f Suspected of damaging fertility.  
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. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – 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

· **\* Data compared to the previous version altered.**

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 6 (1X1 mL)
- **Part number:** PSM-105-H
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

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



GHS02



GHS07



GHS09

- **Signal word** Danger

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**Trade name: LC Pesticide Standard no. 6 (1X1 mL)**

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**· Hazard-determining components of labelling:**

acetonitrile

**· Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H410 Very 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.

P233 Keep container tightly closed.

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.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 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/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                                                                    |         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                                                                       | 99.808% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319                                             |         |
| CAS: 55-38-9      | fenthion (ISO)                                                                                                                                     | 0.0064% |
| EINECS: 200-231-9 | ⚠ Acute Tox. 3, H331; ⚠ Muta. 2, H341; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312 |         |

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|                                      |                                                                                                                                                                  |         |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 2921-88-2<br>EINECS: 220-864-4  | chlorpyrifos (ISO)<br>⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; ⚠ Aquatic Acute 1, H400;<br>Aquatic Chronic 1, H410                                              | 0.0064% |
| CAS: 62-73-7<br>EINECS: 200-547-7    | dichlorvos (ISO)<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Aquatic<br>Acute 1, H400; ⚠ Skin Sens. 1, H317                               | 0.0064% |
| CAS: 86479-06-3<br>ELINCS: 401-400-1 | hexaflumuron<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H332                                                                           | 0.0064% |
| CAS: 111988-49-9                     | thiacloprid<br>⚠ Acute Tox. 3, H301; ⚠ Carc. 2, H351; Repr. 1B, H360; ⚠ Aquatic Acute 1,<br>H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H332; STOT SE 3, H336 | 0.0064% |
| CAS: 72490-01-8<br>EINECS: 276-696-7 | ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate<br>⚠ Carc. 2, H351; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                                   | 0.0064% |

· **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.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

#### 5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, 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** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

#### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

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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** No special precautions are necessary if used correctly.

**· Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**· 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/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:**
**75-05-8 acetonitrile**

WEL Short-term value: 102 mg/m<sup>3</sup>, 60 ppm

Long-term value: 68 mg/m<sup>3</sup>, 40 ppm

**2921-88-2 chlorpyrifos (ISO)**

WEL Short-term value: 0.6 mg/m<sup>3</sup>

Long-term value: 0.2 mg/m<sup>3</sup>

Sk

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

**· 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 eyes.

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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:** Aromatic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: -46 °C

Initial boiling point and boiling range: 81 °C

· **Flash point:** 2 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 525 °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.

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|                                                  |                 |
|--------------------------------------------------|-----------------|
| · <b>Explosion limits:</b>                       |                 |
| <b>Lower:</b>                                    | 4.4 Vol %       |
| <b>Upper:</b>                                    | 16 Vol %        |
| · <b>Vapour pressure at 20 °C:</b>               |                 |
| 0 hPa                                            |                 |
| · <b>Density at 20 °C:</b>                       |                 |
| 0.786 g/cm <sup>3</sup>                          |                 |
| · <b>Relative density</b>                        |                 |
| Not determined.                                  |                 |
| · <b>Vapour density</b>                          |                 |
| Not determined.                                  |                 |
| · <b>Evaporation rate</b>                        |                 |
| Not determined.                                  |                 |
| · <b>Solubility in / Miscibility with water:</b> |                 |
| Not miscible or difficult to mix.                |                 |
| · <b>Partition coefficient: n-octanol/water:</b> |                 |
| Not determined.                                  |                 |
| · <b>Viscosity:</b>                              |                 |
| <b>Dynamic:</b>                                  | Not determined. |
| <b>Kinematic:</b>                                | Not determined. |
| · <b>Solvent content:</b>                        |                 |
| <b>Organic solvents:</b>                         | 0.0 %           |
| <b>VOC (EC)</b>                                  | 0.03 %          |
| · <b>Solids content:</b>                         |                 |
| 0.1 %                                            |                 |
| · <b>Other information</b>                       |                 |
| 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**  
Harmful if swallowed.

### · **LD/LC50 values relevant for classification:**

#### **ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,323 mg/kg (rat) |
|------|------|-------------------|

#### **75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

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**55-38-9 fenthion (ISO)**

|            |          |                 |
|------------|----------|-----------------|
| Oral       | LD50     | 180 mg/kg (rat) |
| Dermal     | LD50     | 330 mg/kg (rat) |
| Inhalative | LC50/4 h | 800 mg/L (rat)  |

**2921-88-2 chlorpyrifos (ISO)**

|            |          |                                      |
|------------|----------|--------------------------------------|
| Oral       | LD50     | 60 mg/kg (mouse)<br>135 mg/kg (rat)  |
| Dermal     | LD50     | 120 mg/kg (mouse)<br>202 mg/kg (rat) |
| Inhalative | LC50/4 h | >200 mg/L (rat)                      |

**62-73-7 dichlorvos (ISO)**

|            |          |                                       |
|------------|----------|---------------------------------------|
| Oral       | LD50     | 25 mg/kg (rat)                        |
| Dermal     | LD50     | 107 mg/kg (rat)<br>107 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 15 mg/L (rat)                         |

**86479-06-3 hexaflumuron**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 5,000 mg/kg (rat) |
|------|------|-------------------|

**111988-49-9 thiacloprid**

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | 444 mg/kg (rat)    |
| Dermal     | LD50     | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | 1,223 mg/L (rat)   |

**72490-01-8 ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate**

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | 16,800 mg/kg (rat) |
| Inhalative | LC50/4 h | >480 mg/L (rat)    |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.
- **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.

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- **Ecotoxicological effects:**
- **Remark:** Very 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.  
 Very 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 4  | Irritant - skin irritation and eye damage |
| HP 6  | Acute Toxicity                            |
| HP 14 | Ecotoxic                                  |

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

### 14 Transport information

#### · **Not Regulated, De minimus Quantities**

-

#### · **UN-Number**

#### · **ADR, IMDG, IATA**

UN1648

#### · **UN proper shipping name**

#### · **ADR**

1648 ACETONITRILE, ENVIRONMENTALLY  
HAZARDOUS

#### · **IMDG**

#### · **IATA**

ACETONITRILE, MARINE POLLUTANT  
ACETONITRILE

#### · **Transport hazard class(es)**

#### · **ADR, IMDG**



#### · **Class**

3 Flammable liquids.

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|                                                                                   |                                                                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Label</b>                                                                    | 3                                                                                                               |
| · <b>IATA</b>                                                                     |                                                                                                                 |
|  |                                                                                                                 |
| · <b>Class</b>                                                                    | 3 Flammable liquids.                                                                                            |
| · <b>Label</b>                                                                    | 3                                                                                                               |
| · <b>Packing group</b>                                                            |                                                                                                                 |
| · <b>ADR, IMDG, IATA</b>                                                          | II                                                                                                              |
| · <b>Environmental hazards:</b>                                                   |                                                                                                                 |
| · <b>Marine pollutant:</b>                                                        | Symbol (fish and tree)                                                                                          |
| · <b>Special marking (ADR):</b>                                                   | Symbol (fish and tree)                                                                                          |
| · <b>Special precautions for user</b>                                             | Warning: Flammable liquids.                                                                                     |
| · <b>Danger code (Kemler):</b>                                                    | 33                                                                                                              |
| · <b>EMS Number:</b>                                                              | F-E, <u>S-E</u>                                                                                                 |
| · <b>Stowage Category</b>                                                         | B                                                                                                               |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>       | Not applicable.                                                                                                 |
| · <b>Transport/Additional information:</b>                                        |                                                                                                                 |
| · <b>ADR</b>                                                                      |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                                  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>                                                       | 2                                                                                                               |
| · <b>Tunnel restriction code</b>                                                  | D/E                                                                                                             |
| · <b>IMDG</b>                                                                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                                  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>                                                   | UN 1648 ACETONITRILE, 3, II,<br>ENVIRONMENTALLY HAZARDOUS                                                       |

### 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  
E1 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

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· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Regulation (EU) No 649/2012**

|         |                  |                                  |
|---------|------------------|----------------------------------|
| 55-38-9 | fenthion (ISO)   | Annex I Part 1<br>Annex I Part 2 |
| 62-73-7 | dichlorvos (ISO) | Annex I Part 1<br>Annex I Part 2 |

· **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.  
H302 Harmful if swallowed.  
H310 Fatal in contact with skin.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H336 May cause drowsiness or dizziness.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H360 May damage fertility or the unborn child.  
H372 Causes 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. 4: Acute toxicity – Category 4  
Acute Tox. 2: Acute toxicity – Category 2  
Acute Tox. 3: Acute toxicity – Category 3  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Muta. 2: Germ cell mutagenicity – Category 2

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**Safety data sheet**  
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**Trade name: LC Pesticide Standard no. 6 (1X1 mL)**

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Carc. 2: Carcinogenicity – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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

· \* **Data compared to the previous version altered.**

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 7 (1X1 mL)
- **Part number:** PSM-105-I
- **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**



Flam. Liq. 2      H225 Highly flammable liquid and vapour.



Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



- **Signal word** Danger

- **Hazard-determining components of labelling:**

acetonitrile

- **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 1)

H412 Harmful 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                                                                                                                                                                                            |         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                                                                                                                                                                                               | 99.923% |
| EINECS: 200-835-2 |  Flam. Liq. 2, H225;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |
| CAS: 153233-91-1  | etoxazol                                                                                                                                                                                                                                                                   | 0.0064% |
|                   |  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H332                                 |         |

**· 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.

(Contd. on page 3)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 2)

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

(Contd. on page 4)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

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**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 3)

- **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/personal protection

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

|                                                                                |
|--------------------------------------------------------------------------------|
| <b>Ingredients with limit values that require monitoring at the workplace:</b> |
|--------------------------------------------------------------------------------|

|                             |
|-----------------------------|
| <b>75-05-8 acetonitrile</b> |
|-----------------------------|

|     |                                                                                                    |
|-----|----------------------------------------------------------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm<br>Long-term value: 68 mg/m <sup>3</sup> , 40 ppm |
|-----|----------------------------------------------------------------------------------------------------|

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

GB

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

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### 9 Physical and chemical properties

|                                                         |                                                                                             |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------|
| · Information on basic physical and chemical properties |                                                                                             |
| · General Information                                   |                                                                                             |
| · Appearance:                                           |                                                                                             |
| Form:                                                   | Fluid                                                                                       |
| Colour:                                                 | Colourless                                                                                  |
| · Odour:                                                | Aromatic                                                                                    |
| · Odour threshold:                                      | Not determined.                                                                             |
| · pH-value:                                             | Not determined.                                                                             |
| · Change in condition                                   |                                                                                             |
| Melting point/freezing point:                           | -46 °C                                                                                      |
| Initial boiling point and boiling range:                | 81 °C                                                                                       |
| · Flash point:                                          | 2 °C                                                                                        |
| · Flammability (solid, gas):                            | Not applicable.                                                                             |
| · Ignition temperature:                                 | 525 °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:                                                  | 4.4 Vol %                                                                                   |
| Upper:                                                  | 16 Vol %                                                                                    |
| · Vapour pressure at 20 °C:                             | 0 hPa                                                                                       |
| · Density at 20 °C:                                     | 0.786 g/cm <sup>3</sup>                                                                     |
| · 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:                                      |                                                                                             |
| VOC (EC)                                                | 0.00 %                                                                                      |
| Solids content:                                         | 0.1 %                                                                                       |
| · Other information                                     | No further relevant information available.                                                  |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 5)

- **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.

- **LD/LC50 values relevant for classification:**

### ATE (Acute Toxicity Estimates)

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,321 mg/kg (rat) |
|------|------|-------------------|

### 75-05-8 acetonitrile

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

### 153233-91-1 etoxazol

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | >5,000 mg/kg (rat) |
| Dermal     | LD50     | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | >1.09 mg/L (rat)   |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.
- **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:** Harmful to fish

(Contd. on page 7)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 6)

- **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.  
 Harmful to 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 4  | Irritant - skin irritation and eye damage |
| HP 6  | Acute Toxicity                            |
| HP 14 | Ecotoxic                                  |

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

### 14 Transport information

- **Not Regulated, De minimus Quantities**

-

- **UN-Number**
- **ADR, IMDG, IATA** UN1648

- **UN proper shipping name**
- **ADR** 1648 ACETONITRILE
- **IMDG, IATA** ACETONITRILE

- **Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class** 3 Flammable liquids.
- **Label** 3

- **Packing group**
- **ADR, IMDG, IATA** II

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

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|                                                                             |                                                                                                                 |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Environmental hazards:</b>                                             | Not applicable.                                                                                                 |
| · <b>Special precautions for user</b>                                       | Warning: Flammable liquids.                                                                                     |
| · <b>Danger code (Kemler):</b>                                              | 33                                                                                                              |
| · <b>EMS Number:</b>                                                        | F-E, <u>S-E</u>                                                                                                 |
| · <b>Stowage Category</b>                                                   | B                                                                                                               |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.                                                                                                 |
| · <b>Transport/Additional information:</b>                                  |                                                                                                                 |
| · <b>ADR</b>                                                                |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                            | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                           | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>                                                 | 2                                                                                                               |
| · <b>Tunnel restriction code</b>                                            | D/E                                                                                                             |
| · <b>IMDG</b>                                                               |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                            | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                           | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>                                             | UN 1648 ACETONITRILE, 3, 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 P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 7 (1X1 mL)**

(Contd. of page 8)

- **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. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – 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 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **\* Data compared to the previous version altered.**

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 8 (1X1 mL)
- **Part number:** PSM-105-J
- **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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

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



GHS02



GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
acetonitrile
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: LC Pesticide Standard no. 8 (1X1 mL)**

(Contd. of page 1)

#### · 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

#### · Chemical characterisation: Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

#### · Dangerous components:

|                   |                                                                                                        |         |
|-------------------|--------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                           | 99.923% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |

- **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.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately rinse with water.

#### · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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## Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 8 (1X1 mL)**

(Contd. of page 2)

- **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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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.

GB

(Contd. on page 4)

## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 8 (1X1 mL)**

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### 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:**

**75-05-8 acetonitrile**

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

· **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 eyes.

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

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|                                                  |                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|
| · <b>Odour:</b>                                  | Aromatic                                                                                    |
| · <b>Odour threshold:</b>                        | Not determined.                                                                             |
| · <b>pH-value:</b>                               | Not determined.                                                                             |
| · <b>Change in condition</b>                     |                                                                                             |
| <b>Melting point/freezing point:</b>             | -46 °C                                                                                      |
| <b>Initial boiling point and boiling range:</b>  | 81 °C                                                                                       |
| · <b>Flash point:</b>                            | 2 °C                                                                                        |
| · <b>Flammability (solid, gas):</b>              | Not applicable.                                                                             |
| · <b>Ignition temperature:</b>                   | 525 °C                                                                                      |
| · <b>Decomposition temperature:</b>              | Not determined.                                                                             |
| · <b>Auto-ignition temperature:</b>              | Product is not selfigniting.                                                                |
| · <b>Explosive properties:</b>                   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b>                       |                                                                                             |
| <b>Lower:</b>                                    | 4.4 Vol %                                                                                   |
| <b>Upper:</b>                                    | 16 Vol %                                                                                    |
| · <b>Vapour pressure at 20 °C:</b>               | 0 hPa                                                                                       |
| · <b>Density at 20 °C:</b>                       | 0.786 g/cm <sup>3</sup>                                                                     |
| · <b>Relative density</b>                        | Not determined.                                                                             |
| · <b>Vapour density</b>                          | Not determined.                                                                             |
| · <b>Evaporation rate</b>                        | Not determined.                                                                             |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.                                                           |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                                                                             |
| · <b>Viscosity:</b>                              |                                                                                             |
| <b>Dynamic:</b>                                  | Not determined.                                                                             |
| <b>Kinematic:</b>                                | Not determined.                                                                             |
| · <b>Solvent content:</b>                        |                                                                                             |
| <b>Organic solvents:</b>                         | 0.0 %                                                                                       |
| <b>VOC (EC)</b>                                  | 0.01 %                                                                                      |
| · <b>Other information</b>                       | 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.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed.

· **LD/LC50 values relevant for classification:**
**ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,321 mg/kg (rat) |
|------|------|-------------------|

**75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

· **Primary irritant effect:**

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **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.

· **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.

· **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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

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### 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 4 | Irritant - skin irritation and eye damage |
| HP 6 | Acute Toxicity                            |

· **Uncleaned packaging:**

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

· **IMDG, IATA**

1648 ACETONITRILE

ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class**

3 Flammable liquids.

· **Label**

3

· **Packing group**

· **ADR, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids.

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

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|                                   |                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>       | 2                                                                                                               |
| · <b>Tunnel restriction code</b>  | D/E                                                                                                             |
| · <b>IMDG</b>                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>   | UN 1648 ACETONITRILE, 3, 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** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

### · **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

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**Trade name: LC Pesticide Standard no. 8 (1X1 mL)**

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· \* **Data compared to the previous version altered.**

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GB

## Safety data sheet

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

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 9 (1X1 mL)
- **Part number:** PSM-105-K
- **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.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**  
acetonitrile

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### according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 9 (1X1 mL)**

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**· Hazard statements**

- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P391 Collect spillage.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

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

**· Dangerous components:**

|                                      |                                                                                                                                            |         |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8<br>EINECS: 200-835-2    | acetonitrile<br>⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319                     | 99.93%  |
| CAS: 64902-72-3<br>EINECS: 265-268-5 | 2-chloro-N-[[[4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]benzenesulphonamide<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | 0.0064% |
| CAS: 120162-55-2                     | thiabendazol (ISO)<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                                                     | 0.0064% |

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**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.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately rinse with water.**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

### 5 Firefighting measures

**Extinguishing media****Suitable extinguishing agents:**CO<sub>2</sub>, 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** No further relevant information available.**Advice for firefighters****Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

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.

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### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/personal protection

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

|                                                                                  |                                                                                                    |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| · <b>Ingredients with limit values that require monitoring at the workplace:</b> |                                                                                                    |
| <b>75-05-8 acetonitrile</b>                                                      |                                                                                                    |
| WEL                                                                              | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm<br>Long-term value: 68 mg/m <sup>3</sup> , 40 ppm |

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

- **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 eyes.  
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

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**Trade name: LC Pesticide Standard no. 9 (1X1 mL)**

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- **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:           | Aromatic        |
| Odour threshold: | Not determined. |

· pH-value: Not determined.

##### · Change in condition

|                                          |        |
|------------------------------------------|--------|
| Melting point/freezing point:            | -46 °C |
| Initial boiling point and boiling range: | 81 °C  |

· Flash point: 2 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 525 °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: | 4.4 Vol % |
| Upper: | 16 Vol %  |

· Vapour pressure at 20 °C: 0 hPa

|                   |                         |
|-------------------|-------------------------|
| Density at 20 °C: | 0.786 g/cm <sup>3</sup> |
| 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.

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|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| <b>Kinematic:</b>                          | Not determined.                            |
| <b>Solvent content:</b><br><b>VOC (EC)</b> | 0.00 %                                     |
| <b>Solids content:</b>                     | 0.1 %                                      |
| <b>Other information</b>                   | 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**  
Harmful if swallowed.

#### · LD/LC50 values relevant for classification:

##### ATE (Acute Toxicity Estimates)

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,321 mg/kg (rat) |
|------|------|-------------------|

##### 75-05-8 acetonitrile

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

##### 64902-72-3 2-chloro-N-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]benzenesulphonamide

|            |          |                      |
|------------|----------|----------------------|
| Oral       | LD50     | 5,545 mg/kg (rat)    |
| Dermal     | LD50     | 3,400 mg/kg (rabbit) |
| Inhalative | LC50/4 h | >5,900 mg/L (rat)    |

##### 120162-55-2 thiabendazol (ISO)

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | >5,000 mg/kg (rat) |
| Dermal     | LD50     | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | >5.84 mg/L (rat)   |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.

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- **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.
- **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 4  | Irritant - skin irritation and eye damage |
| HP 6  | Acute Toxicity                            |
| HP 14 | Ecotoxic                                  |

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

## 14 Transport information

- **Not Regulated, De minimus Quantities**

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GB

## Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: LC Pesticide Standard no. 9 (1X1 mL)**

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|                                                                                                                                                        |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                 | UN1648                                                                                            |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | 1648 ACETONITRILE, ENVIRONMENTALLY<br>HAZARDOUS<br>ACETONITRILE, MARINE POLLUTANT<br>ACETONITRILE |

- **Transport hazard class(es)**
- **ADR, IMDG**



|                                                                                          |                           |
|------------------------------------------------------------------------------------------|---------------------------|
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | 3 Flammable liquids.<br>3 |
|------------------------------------------------------------------------------------------|---------------------------|

- **IATA**



|                                                                                          |                           |
|------------------------------------------------------------------------------------------|---------------------------|
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | 3 Flammable liquids.<br>3 |
|------------------------------------------------------------------------------------------|---------------------------|

|                                                                                                            |    |
|------------------------------------------------------------------------------------------------------------|----|
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul> | II |
|------------------------------------------------------------------------------------------------------------|----|

|                                                                                                                                                                |                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> </ul> | Symbol (fish and tree)<br>Symbol (fish and tree) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|

|                                                                                                                                                                                                  |                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul> | Warning: Flammable liquids.<br>33<br>F-E, <u>S-E</u><br>B |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|

|                                                                                                                               |                 |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul> | Not applicable. |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------|

- **Transport/Additional information:**

|                                                                                                                                                                                                                                    |                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul> | 1L<br>Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml<br>2<br>D/E |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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|                                   |                                                           |
|-----------------------------------|-----------------------------------------------------------|
| · <b>IMDG</b>                     |                                                           |
| · <b>Limited quantities (LQ)</b>  | 1L                                                        |
| · <b>Excepted quantities (EQ)</b> | Code: E2                                                  |
|                                   | Maximum net quantity per inner packaging: 30 ml           |
|                                   | Maximum net quantity per outer packaging: 500 ml          |
| · <b>UN "Model Regulation":</b>   | UN 1648 ACETONITRILE, 3, II,<br>ENVIRONMENTALLY HAZARDOUS |

## 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**  
E2 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
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

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**Safety data sheet**  
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Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – 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.**

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

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

- **Product identifier**
- **Trade name:** LC/GC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-L
- **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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**  
acetonitrile

- **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)**

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#### · 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.
- P233 Keep container tightly closed.
- 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.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 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/information on ingredients

#### · Chemical characterisation: Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

#### · Dangerous components:

|                   |                                                                                                        |         |
|-------------------|--------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                           | 99.891% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |

- **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.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately rinse with water.

#### · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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.

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(Contd. on page 4)

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### 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:**

**75-05-8 acetonitrile**

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

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

· **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 eyes.

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

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|                                                  |                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|
| · <b>Odour:</b>                                  | Aromatic                                                                                    |
| · <b>Odour threshold:</b>                        | Not determined.                                                                             |
| · <b>pH-value:</b>                               | Not determined.                                                                             |
| · <b>Change in condition</b>                     |                                                                                             |
| <b>Melting point/freezing point:</b>             | -46 °C                                                                                      |
| <b>Initial boiling point and boiling range:</b>  | 81 °C                                                                                       |
| · <b>Flash point:</b>                            | 2 °C                                                                                        |
| · <b>Flammability (solid, gas):</b>              | Not applicable.                                                                             |
| · <b>Ignition temperature:</b>                   | 525 °C                                                                                      |
| · <b>Decomposition temperature:</b>              | Not determined.                                                                             |
| · <b>Auto-ignition temperature:</b>              | Product is not selfigniting.                                                                |
| · <b>Explosive properties:</b>                   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b>                       |                                                                                             |
| <b>Lower:</b>                                    | 4.4 Vol %                                                                                   |
| <b>Upper:</b>                                    | 16 Vol %                                                                                    |
| · <b>Vapour pressure at 20 °C:</b>               | 0 hPa                                                                                       |
| · <b>Density at 20 °C:</b>                       | 0.786 g/cm <sup>3</sup>                                                                     |
| · <b>Relative density</b>                        | Not determined.                                                                             |
| · <b>Vapour density</b>                          | Not determined.                                                                             |
| · <b>Evaporation rate</b>                        | Not determined.                                                                             |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.                                                           |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                                                                             |
| · <b>Viscosity:</b>                              |                                                                                             |
| <b>Dynamic:</b>                                  | Not determined.                                                                             |
| <b>Kinematic:</b>                                | Not determined.                                                                             |
| · <b>Solvent content:</b>                        |                                                                                             |
| <b>VOC (EC)</b>                                  | 0.00 %                                                                                      |
| <b>Solids content:</b>                           | 0.1 %                                                                                       |
| · <b>Other information</b>                       | 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.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

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## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed.

· **LD/LC50 values relevant for classification:**
**ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,321 mg/kg (rat) |
|------|------|-------------------|

**75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

· **Primary irritant effect:**

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **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.

· **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.

· **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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

GB

(Contd. on page 7)

## Safety data sheet

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Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)**

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### 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 4 | Irritant - skin irritation and eye damage |
| HP 6 | Acute Toxicity                            |

· **Uncleaned packaging:**

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

· **IMDG, IATA**

1648 ACETONITRILE

ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **Packing group**

· **ADR, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids.

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

(Contd. on page 8)

## Safety data sheet

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|                                   |                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>       | 2                                                                                                               |
| · <b>Tunnel restriction code</b>  | D/E                                                                                                             |
| · <b>IMDG</b>                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b> | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>   | UN 1648 ACETONITRILE, 3, 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** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

### · **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

(Contd. on page 9)

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)**

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· \* **Data compared to the previous version altered.**

(Contd. of page 8)

GB

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** LC/GC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-M
- **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.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

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



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Eye Irrit. 2      H319 Causes serious eye irritation.

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



GHS02



GHS07



GHS09

- **Signal word** Danger

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 1)

**· Hazard-determining components of labelling:**

acetonitrile

**· Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H410 Very 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.

P233 Keep container tightly closed.

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.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 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/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                        |         |
|-------------------|--------------------------------------------------------------------------------------------------------|---------|
| CAS: 75-05-8      | acetonitrile                                                                                           | 99.917% |
| EINECS: 200-835-2 | ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319 |         |
| CAS: 298-02-2     | phorate (ISO)                                                                                          | 0.0064% |
| EINECS: 206-052-2 | ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410             |         |

(Contd. on page 3)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

|                                      |                                                                                                                                                          |         |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| (Contd. of page 2)                   |                                                                                                                                                          |         |
| CAS: 22224-92-6<br>EINECS: 244-848-1 | fenamiphos (ISO)<br>⚠ Acute Tox. 2, H300; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Eye Irrit. 2, H319 | 0.0064% |
| CAS: 7786-34-7<br>EINECS: 232-095-1  | mevinphos (ISO)<br>⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410                                            | 0.0064% |

· **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, 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 relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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.

(Contd. on page 4)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. of page 3)

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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/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:**

### 75-05-8 acetonitrile

|     |                                                  |
|-----|--------------------------------------------------|
| WEL | Short-term value: 102 mg/m <sup>3</sup> , 60 ppm |
|     | Long-term value: 68 mg/m <sup>3</sup> , 40 ppm   |

### 298-02-2 phorate (ISO)

|     |                                         |
|-----|-----------------------------------------|
| WEL | Short-term value: 0.2 mg/m <sup>3</sup> |
|     | Long-term value: 0.05 mg/m <sup>3</sup> |
|     | Sk                                      |

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

· **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 eyes.  
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.

(Contd. on page 5)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 4)

**· 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:** Aromatic

**· Odour threshold:** Not determined.

**· pH-value:** Not determined.

**· Change in condition**

**Melting point/freezing point:** -46 °C

**Initial boiling point and boiling range:** 81 °C

**· Flash point:** 2 °C

**· Flammability (solid, gas):** Not applicable.

**· Ignition temperature:** 525 °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:** 4.4 Vol %

**Upper:** 16 Vol %

**· Vapour pressure at 20 °C:** 0 hPa

**· Density at 20 °C:** 0.786 g/cm<sup>3</sup>

**· Relative density** Not determined.

**· Vapour density** Not determined.

(Contd. on page 6)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 5)

|                                                  |                                            |
|--------------------------------------------------|--------------------------------------------|
| · <b>Evaporation rate</b>                        | Not determined.                            |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.          |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |                                            |
| <b>Dynamic:</b>                                  | Not determined.                            |
| <b>Kinematic:</b>                                | Not determined.                            |
| · <b>Solvent content:</b>                        |                                            |
| <b>Organic solvents:</b>                         | 0.0 %                                      |
| <b>VOC (EC)</b>                                  | 0.01 %                                     |
| · <b>Solids content:</b>                         | 0.1 %                                      |
| · <b>Other information</b>                       | 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**  
Harmful if swallowed.

### · **LD/LC50 values relevant for classification:**

#### **ATE (Acute Toxicity Estimates)**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,321 mg/kg (rat) |
|------|------|-------------------|

#### **75-05-8 acetonitrile**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)     |
| Dermal     | LD50     | >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3,587 mg/L (mouse)    |

#### **298-02-2 phorate (ISO)**

|        |      |                 |
|--------|------|-----------------|
| Oral   | LD50 | 1.6 mg/kg (rat) |
| Dermal | LD50 | 2.5 mg/kg (rat) |

#### **22224-92-6 fenamiphos (ISO)**

|            |          |                |
|------------|----------|----------------|
| Oral       | LD50     | 10 mg/kg (rat) |
| Dermal     | LD50     | 80 mg/kg (rat) |
| Inhalative | LC50/4 h | 91 mg/L (rat)  |

(Contd. on page 7)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 6)

**7786-34-7 mevinphos (ISO)**

|        |      |               |
|--------|------|---------------|
| Oral   | LD50 | 3 mg/kg (rat) |
| Dermal | LD50 | 4 mg/kg (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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** Based on available data, the classification criteria are not met.
- **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:** Very 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.  
Very 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.

|                                   |                                           |
|-----------------------------------|-------------------------------------------|
| · <b>European waste catalogue</b> |                                           |
| HP 3                              | Flammable                                 |
| HP 4                              | Irritant - skin irritation and eye damage |
| HP 6                              | Acute Toxicity                            |

(Contd. on page 8)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 7)

HP 14 Ecotoxic

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

### 14 Transport information

· **Not Regulated, De minimus Quantities**

-

· **UN-Number**

· **ADR, IMDG, IATA**

UN1648

· **UN proper shipping name**

· **ADR**

1648 ACETONITRILE, ENVIRONMENTALLY  
HAZARDOUS

· **IMDG**

· **IATA**

ACETONITRILE, MARINE POLLUTANT  
ACETONITRILE

· **Transport hazard class(es)**

· **ADR, IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3

· **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):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol  
and the IBC Code**

Not applicable.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 8)

**· Transport/Additional information:**
**· ADR**

- **Limited quantities (LQ)**
- **Excepted quantities (EQ)**

1L

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)**
- **Excepted quantities (EQ)**

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· UN "Model Regulation":**

UN 1648 ACETONITRILE, 3, II,  
ENVIRONMENTALLY HAZARDOUS

## 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**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**· Department issuing SDS:** Document Control / Regulatory

**· Contact:** regulatory@ultrasoci.com

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)**

(Contd. of page 9)

**· 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. 4: Acute toxicity – Category 4  
Acute Tox. 1: Acute toxicity – Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation – 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

**· \* Data compared to the previous version altered.**

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

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

- **Product identifier**
- **Trade name:** GC/LC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-N
- **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.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2      H319 Causes serious eye irritation.

STOT SE 3      H336 May cause drowsiness or dizziness.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**

acetone

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)**

(Contd. of page 1)

**· Hazard statements**

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- 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.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+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.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, 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.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

**· Dangerous components:**

|                   |                                                                                                                                                                                                                                         |         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 67-64-1      | acetone                                                                                                                                                                                                                                 | 99.931% |
| EINECS: 200-662-2 |  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336         |         |
| CAS: 105024-66-6  | silaflofen                                                                                                                                                                                                                              | 0.0063% |
| ELINCS: 405-020-7 |  Repr. 1B, H360F;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410 |         |

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

GB

(Contd. on page 3)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 31.03.2019

**Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)**

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### 4 First aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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 relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
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.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

- **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/personal protection

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

- **Control parameters**

|                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>Ingredients with limit values that require monitoring at the workplace:</b></li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------|

|                        |
|------------------------|
| <b>67-64-1 acetone</b> |
|------------------------|

|     |                                                     |
|-----|-----------------------------------------------------|
| WEL | Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm |
|-----|-----------------------------------------------------|

|  |                                                   |
|--|---------------------------------------------------|
|  | Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm |
|--|---------------------------------------------------|

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

- **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 eyes.

- 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

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· 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:           | Characteristic  |
| Odour threshold: | Not determined. |

· pH-value: Not determined.

· Change in condition

|                                          |          |
|------------------------------------------|----------|
| Melting point/freezing point:            | -94.7 °C |
| Initial boiling point and boiling range: | 55 °C    |

· Flash point: -17 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 465 °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: | 2.6 Vol % |
| Upper: | 13 Vol %  |

· Vapour pressure at 20 °C: 245.3 hPa

· Density at 20 °C: 0.791 g/cm<sup>3</sup>

· 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: 99.9 %

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|                          |                                            |
|--------------------------|--------------------------------------------|
| <b>VOC (EC)</b>          | 99.93 %                                    |
| <b>Solids content:</b>   | 0.1 %                                      |
| <b>Other information</b> | 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** Based on available data, the classification criteria are not met.

### · **LD/LC50 values relevant for classification:**

#### 67-64-1 acetone

|        |      |                       |
|--------|------|-----------------------|
| Oral   | LD50 | 5,800 mg/kg (rat)     |
| Dermal | LD50 | 20,000 mg/kg (rabbit) |

#### 15972-60-8 alachlor (ISO)

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 930 mg/kg (rat)      |
| Dermal | LD50 | 3,500 mg/kg (rabbit) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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**  
May cause drowsiness or dizziness.
- **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.

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- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
 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 4  | Irritant - skin irritation and eye damage                 |
| HP 5  | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP 14 | Ecotoxic                                                  |

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

### 14 Transport information

#### · Not Regulated, De minimus Quantities

-

#### · UN-Number

#### · ADR, IMDG, IATA

UN1090

#### · UN proper shipping name

#### · ADR

1090 ACETONE, ENVIRONMENTALLY  
HAZARDOUS

#### · IMDG

#### · IATA

ACETONE, MARINE POLLUTANT  
ACETONE

#### · Transport hazard class(es)

#### · ADR, IMDG



#### · Class

3 Flammable liquids.

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|                                                                                   |                                                                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Label</b>                                                                    | 3                                                                                                               |
| · <b>IATA</b>                                                                     |                                                                                                                 |
|  |                                                                                                                 |
| · <b>Class</b>                                                                    | 3 Flammable liquids.                                                                                            |
| · <b>Label</b>                                                                    | 3                                                                                                               |
| · <b>Packing group</b>                                                            |                                                                                                                 |
| · <b>ADR, IMDG, IATA</b>                                                          | II                                                                                                              |
| · <b>Environmental hazards:</b>                                                   |                                                                                                                 |
| · <b>Marine pollutant:</b>                                                        | Symbol (fish and tree)                                                                                          |
| · <b>Special marking (ADR):</b>                                                   | Symbol (fish and tree)                                                                                          |
| · <b>Special precautions for user</b>                                             | Warning: Flammable liquids.                                                                                     |
| · <b>Danger code (Kemler):</b>                                                    | 33                                                                                                              |
| · <b>EMS Number:</b>                                                              | F-E, <u>S-E</u>                                                                                                 |
| · <b>Stowage Category</b>                                                         | B                                                                                                               |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>       | Not applicable.                                                                                                 |
| · <b>Transport/Additional information:</b>                                        |                                                                                                                 |
| · <b>ADR</b>                                                                      |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                                  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>Transport category</b>                                                       | 2                                                                                                               |
| · <b>Tunnel restriction code</b>                                                  | D/E                                                                                                             |
| · <b>IMDG</b>                                                                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                                  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>                                                   | UN 1090 ACETONE, 3, II, ENVIRONMENTALLY HAZARDOUS                                                               |

### 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  
E2 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

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- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 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.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H360F May damage fertility.
- 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
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Repr. 1B: Reproductive toxicity – Category 1B
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - 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.**