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

- Product identifier
- Trade name: Fenpropathrin
- Part number: PST-2310, PST-2310-10MG, PST-2310-25MG, PST-2310-100MG
- CAS Number: 39515-41-8
- EC number: 254-485-0
- Index number: 607-239-00-5
- 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

- GHS06 skull and crossbones
  Acute Tox. 3 H301 Toxic if swallowed.
  Acute Tox. 2 H330 Fatal if inhaled.

- 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 H312 Harmful in contact with skin.

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

(Contd. on page 2)
· Hazard pictograms

GHS06  GHS09

· Signal word Danger

· Hazard-determining components of labelling:
  alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate

· Hazard statements
  H301 Toxic if swallowed.
  H312 Harmful in contact with skin.
  H330 Fatal if inhaled.
  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.
  P260 Do not breathe dust/fume/gas/mist/vapours/spray.
  P264 Wash thoroughly after handling.
  P270 Do not eat, drink or smoke when using this product.
  P271 Use only outdoors or in a well-ventilated area.
  P273 Avoid release to the environment.
  P280 Wear protective gloves / protective clothing.
  P284 [In case of inadequate ventilation] wear respiratory protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  P330 Rinse mouth.
  P302+P352 IF ON SKIN: Wash with plenty of water.
  P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  P312 Call a POISON CENTER/doctor if you feel unwell.
  P320 Specific treatment is urgent (see on this label).
  P362+P364 Take off contaminated clothing and wash it before reuse.
  P391 Collect spillage.
  P403+P233 Store in a well-ventilated place. Keep container tightly closed.
  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: Substances
· CAS No. Description
  39515-41-8 alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate
· Identification number(s)
· EC number: 254-485-0
4 First aid measures

· Description of first aid measures

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

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

· After skin contact:
  Immediately wash with water and soap and rinse thoroughly.

· After eye contact:
  Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:
  Do not induce vomiting; call for medical help 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: Use fire extinguishing methods suitable to surrounding conditions.

· Special hazards arising from the substance or mixture
  During heating or in case of fire poisonous gases are produced.

· Advice for firefighters

· Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures: Mount respiratory protective device.

· 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:
  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.
Trade name: Fenpropathrin

7 Handling and storage

· Handling:
· Precautions for safe handling
  Thorough dedusting.
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
· Information about fire - and explosion protection: Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles: No special requirements.
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions: Keep container tightly sealed.
· 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: Not required.
· 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.
      Store protective clothing separately.
      Avoid contact with the eyes and skin.
  · Respiratory protection:
    When used as intended with Agilent instruments the use of the product under normal laboratory conditions and
    with standard practices does not result in significant airborne exposures and therefore respiratory protection is not
    needed.
    Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved
    device equipment with appropriate organic or acid gas cartridge.
  · Protection of hands:
    Although not recommended for constant contact with the chemicals or for clean up, nitrile gloves 11-13mil
    thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct
    contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times
    exceeding 4 hrs. Supplier recommendations should be followed.
· Material of gloves
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and
  varies from manufacturer to manufacturer.
· Penetration time of glove material
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: > 4 hours

(Contd. on page 5)
### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

- **Appearance:**
  - **Form:** Solid
  - **Colour:** Not determined.
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.

#### Change in condition

- **Melting point/freezing point:** Undetermined.
- **Initial boiling point and boiling range:** Undetermined.

- **Flash point:** >100 °C

- **Flammability (solid, gas):** Product is not flammable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Not determined.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapour pressure:** Not applicable.

- **Density at 20 °C:** 1.15 g/cm³
- **Relative density:** Not determined.
- **Vapour density:** Not applicable.
- **Evaporation rate:** Not applicable.

- **Solubility in / Miscibility with water:** Insoluble.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**
  - **Dynamic:** Not applicable.
  - **Kinematic:** Not applicable.

- **Solids content:** 100.0 %

- **Other information:** No further relevant information available.

### 10 Stability and reactivity

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

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
Trade name: Fenpropathrin

- **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**
    Toxic if swallowed.
    Harmful in contact with skin.
    Fatal if inhaled.
  
- **LD/LC50 values relevant for classification**:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimates)</th>
<th>Oral LD50 18 mg/kg (rat)</th>
<th>Inhalative LC50/4 h 0.05 mg/L</th>
</tr>
</thead>
</table>

  39515-41-8 alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate

<table>
<thead>
<tr>
<th>Oral LD50 18 mg/kg (rat)</th>
<th>Dermal LD50 &gt;2,000 mg/kg (rabbit)</th>
</tr>
</thead>
</table>

- **Primary irritant effect**:
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
    - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
    - **Carcinogenicity** Based on available data, the classification criteria are not met.
    - **Reproductive toxicity** Based on available data, the classification criteria are not met.
    - **STOT-single exposure** Based on available data, the classification criteria are not met.
    - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **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**: No further relevant information available.
  - **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 3 (German Regulation) (Assessment by list): extremely hazardous for water.
    Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    Danger to drinking water if even extremely small quantities leak into the ground.
    Also poisonous for fish and plankton in water bodies.
    Very toxic for aquatic organisms.
Trade name: Fenpropathrin

- 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  | Acute Toxicity       |
  | HP  | Ecotoxic            |

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

14 Transport information

- UN-Number
  - ADR, IMDG, IATA UN2811

- UN proper shipping name
  - ADR 2811 TOXIC SOLID, ORGANIC, N.O.S. (alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate), ENVIRONMENTALLY HAZARDOUS
  - IMDG, IATA TOXIC SOLID, ORGANIC, N.O.S. (alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate)

- Transport hazard class(es)
  - ADR
    - Class 6.1 Toxic substances.
    - Label 6.1
  - IMDG, IATA
    - Class 6.1 Toxic substances.
    - Label 6.1
### Trade name: Fenpropathrin

<table>
<thead>
<tr>
<th>· Packing group</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Environmental hazards:</td>
<td>Symbol (fish and tree)</td>
</tr>
<tr>
<td>· Special marking (ADR):</td>
<td></td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td>Warning: Toxic substances.</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>60</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-A,S-A</td>
</tr>
<tr>
<td>· Stowage Category</td>
<td>B</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of Marpol and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

### Transport/Additional information:

<table>
<thead>
<tr>
<th>· ADR</th>
<th>500 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Limited quantities (LQ) Code: E4</td>
<td></td>
</tr>
<tr>
<td>· Exempted quantities (EQ) Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g</td>
<td></td>
</tr>
<tr>
<td>· Transport category 2</td>
<td></td>
</tr>
<tr>
<td>· Tunnel restriction code D/E</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· IMDG</th>
<th>500 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Limited quantities (LQ) Code: E4</td>
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<td></td>
</tr>
</tbody>
</table>

| · UN "Model Regulation": | UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (ALPHA-CYANO-3-PHENOXYBENZYL 2,2,3,3-TETRAMETHYLCYCLOPROPANECARBOXYLATE), 6.1, II, ENVIRONMENTALLY HAZARDOUS |

### 15 Regulatory information

<table>
<thead>
<tr>
<th>· Safety, health and environmental regulations/legislation specific for the substance or mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Directive 2012/18/EU</td>
</tr>
<tr>
<td>· Named dangerous substances - ANNEX I Substance is not listed.</td>
</tr>
<tr>
<td>· Seveso category H2 ACUTE TOXIC E1 Hazardous to the Aquatic Environment</td>
</tr>
<tr>
<td>· Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t</td>
</tr>
<tr>
<td>· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Regulation (EU) No 649/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex I Part I</td>
</tr>
<tr>
<td>· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.</td>
</tr>
</tbody>
</table>
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.

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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute 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.