1 Identification

· Product identifier

· Trade name: Fenvalerate

· Part number: PST-1445, PST-1445-10MG

· CAS Number:
  51630-58-1

· EC number:
  257-326-3

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

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:
  Agilent Technologies Australia Pty Ltd
  679 Springvale Road
  Mulgrave
  Victoria 3170, Australia

· Further information obtainable from:
  Telephone: 1800 802 402
  e-mail: pdl-msds_author@agilent.com

· Emergency telephone number: CHEMTREC®: +(61) - 290372994

2 Hazard(s) Identification

· Classification of the substance or mixture

  skull and crossbones

  Acute Tox. 3  H301  Toxic if swallowed.

  Skin Irrit. 2  H315  Causes skin irritation.

  Eye Irrit. 2A  H319  Causes serious eye irritation.

  STOT SE 3  H335  May cause respiratory irritation.

· Label elements

· GHS label elements
  The substance is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms

  GHS06

· Signal word Danger

· Hazard-determining components of labelling:
  fenvalerate
Trade name: Fenvalerate

- **Hazard statements**
  - Toxic if swallowed.
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause respiratory irritation.

- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Avoid breathing dust/fume/gas/mist/vapours/spray.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Use only outdoors or in a well-ventilated area.
  - Wear protective gloves / eye protection / face protection.
  - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  - Specific treatment (see on this label).
  - Rinse mouth.
  - IF ON SKIN: Wash with plenty of water.
  - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Call a POISON CENTER/doctor if you feel unwell.
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - Take off contaminated clothing and wash before reuse.
  - Store in a well-ventilated place. Keep container tightly closed.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**
  - **PBT**: Not applicable.
  - **vPvB**: Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
  - 51630-58-1 fenvalerate
- **Identification number(s)**
- **EC number**: 257-326-3

### 4 First Aid Measures

- **Description of first aid measures**
  
  **General information:**
  - Immediately remove any clothing soiled by the product.
  - In case of irregular breathing or respiratory arrest provide artificial respiration.
  - **After inhalation**: In case of unconsciousness place patient stably in side position for transportation.
  - **After skin contact**: Immediately wash with water and soap and rinse thoroughly.
Trade name: Fenvalerate

- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, 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 Fire Fighting Measures

- **Extinguishing media**
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 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** Not required.
- **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.

### 7 Handling and Storage

- **Handling:**
- Preccautions for safe handling
  Thorough dedusting.
  Ensure good ventilation/exhaustion at the workplace.
- Information about fire and explosion protection: No special measures required.
- **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 and personal protection

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

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

- Eye protection:
  Tightly sealed goggles

9 Physical and Chemical Properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Solid
    - Colour: Not determined.
  - Odour: Characteristic
  - Odour threshold: Not determined.
Safety Data Sheet
according to WHS Regulations

Printing date 24.03.2019
Revision: 24.03.2019
Version number 2

Trade name: Fenvalerate

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<th>according to WHS Regulations</th>
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</tr>
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<td>Version number</td>
<td>2</td>
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</tbody>
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**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.

(Contd. on page 6)
Trade name: Fenvalerate

11 Toxicological Information

- Information on toxicological effects
  - Acute toxicity
    - LD/LC50 values relevant for classification:
      ATE (Acute Toxicity Estimates)
      Oral | LD50 | 70.2 mg/kg (rat)

  51630-58-1 fenvalerate
  Oral | LD50 | 70.2 mg/kg (rat)
  Dermal | LD50 | >5,000 mg/kg (rat)

- Primary irritant effect:
  - Skin corrosion/irritation Irritant to skin and mucous membranes.
  - Serious eye damage/irritation Irritating effect.
  - Respiratory or skin sensitisation No sensitising effects known.

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 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.

- 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.

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

14 Transport information

- UN-Number
  - ADG, IMDG, IATA
  - UN2811

(Contd. of page 5)
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| **UN proper shipping name**  |
| ADG                         |
| IMDG, IATA                  |
| TOXIC SOLID, ORGANIC, N.O.S. (fenvalerate), ENVIRONMENTALLY HAZARDOUS TOXIC SOLID, ORGANIC, N.O.S. (fenvalerate) |

| **Transport hazard class(es)**  |
| ADG                           |
| IMDG, IATA                    |
| Class                         |
| 6.1 Toxic substances.         |
| Label                         |
| 6.1                           |

| **Packing group**  |
| ADG, IMDG, IATA |
| III             |

| **Environmental hazards**:  |
| Special marking (ADG):     |
| Symbol (fish and tree)     |

| **Special precautions for user**  |
| Warning: Toxic substances.       |
| Danger code (Kemler):            |
| 60                              |
| EMS Number:                      |
| F-A,S-A                         |
| Stowage Category                |
| A                               |

| **Transport in bulk according to Annex II of Marpol and the IBC Code**  |
| Not applicable.              |

| **Transport/Additional information**:  |
| ADG                               |
| Limited quantities (LQ):          |
| 5 kg                              |
| Code: E1                          |
| Excepted quantities (EQ)          |
| Maximum net quantity per inner packaging: 30 g |
| Maximum net quantity per outer packaging: 1000 g |

| IMDG |
| Limited quantities (LQ):          |
| 5 kg                              |
| Code: E1                          |
| Excepted quantities (EQ)          |
| Maximum net quantity per inner packaging: 30 g |
| Maximum net quantity per outer packaging: 1000 g |

(Contd. of page 6)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Australian Inventory of Chemical Substances
    Substance is listed.
  - Standard for the Uniform Scheduling of Medicines and Poisons
    S6
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- Seveso category
  - H2 ACUTE TOXIC
  - E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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

- Department issuing SDS: Document Control / Regulatory
- Contact: regulatory@ultrasci.com
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - 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
  - Acute Tox. 3: Acute toxicity – Category 3
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3