1 Identification

- Product identifier
- Trade name: MCPP
- Part number: PST-1190, PST-1190-10MG
- CAS Number: 93-65-2
- EC number: 202-264-4
- Index number: 607-049-00-2
- 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.
    Acute Tox. 3 H331 Toxic if inhaled.
- health hazard
  Carc. 2 H351 Suspected of causing cancer.
- corrosion
  Skin Corr. 1 H314 Causes severe skin burns and eye damage.
- !
  Acute Tox. 4 H312 Harmful in contact with skin.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  STOT SE 3 H335 May cause respiratory irritation.

(Contd. on page 2)
· Label elements
  · GHS label elements
  The substance is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms

  GHS05  GHS06  GHS08

· Signal word Danger

· Hazard-determining components of labelling:
  2-(4-chloro-2-methylphenoxy)propionic acid

· Hazard statements
  Toxic if swallowed.
  Harmful in contact with skin.
  Toxic if inhaled.
  Causes severe skin burns and eye damage.
  Causes serious eye irritation.
  Suspected of causing cancer.
  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.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Do not breathe dusts or mists.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Use personal protective equipment as required.
  IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  IF exposed or concerned: Get medical advice/attention.
  Call a POISON CENTER/doctor if you feel unwell.
  Specific measures (see on this label).
  If eye irritation persists: Get medical advice/attention.
  Wash contaminated clothing 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.
Trade name: MCPP

- vPvB: Not applicable.

3 Composition and Information on Ingredients

- Chemical characterisation: Substances
  - CAS No. Description
    93-65-2 2-(4-chloro-2-methylphenoxy)propionic acid
- Identification number(s)
  - EC number: 202-264-4
  - Index number: 607-049-00-2

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. If symptoms persist, consult a doctor.
  - After swallowing:
    Do not induce vomiting; call for medical help immediately.
    Drink plenty of water and provide fresh air. Call for a doctor immediately.

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
    During heating or in case of fire poisonous gases are produced.
- Advice for firefighters
  - Protective equipment: Mouth respiratory protective device.

6 Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.
  Wear protective equipment. Keep unprotected persons away.
48.1.26

· 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:
  Use neutralising agent.
  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
    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 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.
      Store protective clothing separately.
      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
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

<table>
<thead>
<tr>
<th>9 Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 Information on basic physical and chemical properties</td>
</tr>
<tr>
<td>9.2 General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Crystalline</td>
</tr>
<tr>
<td>Colour: Colourless</td>
</tr>
<tr>
<td>Odour: Characteristic</td>
</tr>
<tr>
<td>Odour threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: Not applicable.</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/freezing point: 88-90 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: 327 °C</td>
</tr>
<tr>
<td>Flash point: 100 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas): Product is not flammable.</td>
</tr>
<tr>
<td>Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature: Not determined.</td>
</tr>
<tr>
<td>Explosive properties: Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
</tr>
<tr>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
</tr>
<tr>
<td>Vapour pressure: Not applicable.</td>
</tr>
<tr>
<td>Density at 20 °C: 1.35 g/cm³</td>
</tr>
<tr>
<td>Relative density: Not determined.</td>
</tr>
<tr>
<td>Vapour density: Not applicable.</td>
</tr>
</tbody>
</table>
Trade name: MCPP

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
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<tr>
<td>Dynamic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Solids content:</td>
<td>100.0 %</td>
</tr>
<tr>
<td>Other information:</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and Reactivity

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

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

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

  **ATE (Acute Toxicity Estimates)**
  - Oral LD50: 650 mg/kg (rat)
  - Dermal LD50: 900 mg/kg (rabbit)
  - Inhalative LC50/4 h: 0.5 mg/L

  **93-65-2 2-(4-chloro-2-methylphenoxy)propionic acid**
  - Oral LD50: 650 mg/kg (rat)
  - Dermal LD50: 900 mg/kg (rabbit)

- **Primary irritant effect**:
  - **Skin corrosion/irritation**: Strong caustic effect on skin and mucous membranes.
  - **Serious eye damage/irritation**: Strong caustic effect. Irritating effect.

- **Respiratory or skin sensitisation**: No sensitising effects known.

- **Additional toxicological information**:
  - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
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) (Self-assessment): extremely hazardous for water
      Do not allow product to reach ground water, water course or sewage system, even in small quantities.
      Must not reach sewage water or drainage ditch undiluted or unneutralised.
      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

- **UN proper shipping name**
  - ADG
    - 2811 TOXIC SOLID, ORGANIC, N.O.S. (2-(4-chloro-2-methylphenoxy)propionic acid), ENVIRONMENTALLY HAZARDOUS
  - IMDG
    - TOXIC SOLID, ORGANIC, N.O.S. (2-(4-chloro-2-methylphenoxy)propionic acid), MARINE POLLUTANT
  - IATA
    - TOXIC SOLID, ORGANIC, N.O.S. (2-(4-chloro-2-methylphenoxy)propionic acid)
### Transport hazard class(es)
- **ADG, IMDG**

#### Class 6.1 Toxic substances.
#### Label 6.1

### IATA
- **Class** 6.1 Toxic substances.
- **Label** 6.1

### Packing group
- **ADG, IMDG, IATA** III

### Environmental hazards:
- **Product contains environmentally hazardous substances**: 2-(4-chloro-2-methylphenoxy)propionic acid
- **Symbol (fish and tree)**
- **Special marking (ADG)**

### 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
  - **Excepted quantities (EQ)**: Code: E1
    - Maximum net quantity per inner packaging: 30 g
    - Maximum net quantity per outer packaging: 1000 g

- **Transport category**: 2
- **Tunnel restriction code**: E

- **IMDG**
  - **Limited quantities (LQ)**: 5 kg
  - **Excepted quantities (EQ)**: Code: E1
    - Maximum net quantity per inner packaging: 30 g
    - Maximum net quantity per outer packaging: 1000 g
Safety Data Sheet
according to WHS Regulations

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
    S5, 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
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1: Skin corrosion/irritation – Category 1
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - Carc. 2: Carcinogenicity – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3