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

- 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 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. 3    H331  Toxic if inhaled.

  GHS08 health hazard
  Carc. 2        H351  Suspected of causing cancer.

  GHS05 corrosion
  Skin Corr. 1A   H314  Causes severe skin burns and eye damage.

  GHS09 environment
  Aquatic Acute 1  H400  Very toxic to aquatic life.
  Aquatic Chronic 1 H410  Very toxic to aquatic life with long lasting effects.
Trade name: MCPP

GHS07

Acute Tox. 4   H312 Harmful in contact with skin.
Eye Irrit. 2   H319 Causes serious eye irritation.
STOT SE 3     H335 May cause respiratory irritation.

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

GHS05   GHS06   GHS08   GHS09

· Signal word Danger
· Hazard-determining components of labelling:
  2-(4-chloro-2-methylphenoxy)propionic acid
· Hazard statements
  H301+H331 Toxic if swallowed or if inhaled.
  H312   Harmful in contact with skin.
  H314   Causes severe skin burns and eye damage.
  H319   Causes serious eye irritation.
  H351   Suspected of causing cancer.
  H335   May cause respiratory 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.
  P201 Obtain special instructions before use.
  P202 Do not handle until all safety precautions have been read and understood.
  P260 Do not breathe dusts or mists.
  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/eye protection/face protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P321 Specific treatment (see on this label).
  P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
  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.
  P308+P313 IF exposed or concerned: Get medical advice/attention.
  P312 Call a POISON CENTER/doctor if you feel unwell.
4.1.26

P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing 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
  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.
· 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.
Trade name: MCPP

§ 6 Accidental release measures

- 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.

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

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**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Crystalline
      - **Colour:** Colourless
    - **Odour:** Characteristic
    - **Odour threshold:** Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - Melting point/freezing point: 88-90 °C
    - Initial boiling point and boiling range: 327 °C
  - **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: 1.35 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.

· Solvent content:
  VOC (EC) 0.00 %
  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.
  · 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 or if inhaled.
    Harmful in contact with skin.

· LD/LC50 values relevant for classification:

  ATE (Acute Toxicity Estimates)

<table>
<thead>
<tr>
<th>Mode</th>
<th>LD50/C50</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>650 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>900 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>0.5 mg/L</td>
</tr>
</tbody>
</table>
93-65-2 2-(4-chloro-2-methylphenoxy)propionic acid

<table>
<thead>
<tr>
<th>Type</th>
<th>LD50</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>650 mg/kg</td>
<td>(rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>900 mg/kg</td>
<td>(rabbit)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **Skin corrosion/irritation**
    Causes severe skin burns and eye damage.
  - **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**
      Suspected of causing cancer.
  - **Reproductive toxicity**
    Based on available data, the classification criteria are not met.
  - **STOT-single exposure**
    May cause respiratory irritation.
  - **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.
- **Ecotoxic effects:**
  - **Remark:** Very toxic for fish
- **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.
  - 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.
### 48.1.26 European waste catalogue

- **HP 5** Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
- **HP 6** Acute Toxicity
- **HP 7** Carcinogenic
- **HP 8** Corrosive
- **HP 14** 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. (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)**
  - **ADR, IMDG**
    - **Class** 6.1 Toxic substances.
    - **Label** 6.1
  - **IATA**
    - **Class** 6.1 Toxic substances.
    - **Label** 6.1
- **Packing group**
  - **ADR, IMDG, IATA** III
- **Environmental hazards:** Product contains environmentally hazardous substances: 2-(4-chloro-2-methylphenoxy)propionic acid
- **Marine pollutant:** Symbol (fish and tree)
- **Special marking (ADR):** Symbol (fish and tree)
- **Special precautions for user** Warning: Toxic substances.

(Contd. on page 9)
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **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
  - 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)
Trade name: MCPP

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. 1A: Skin corrosion/irritation – Category 1A
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Carc. 2: Carcinogenicity – Category 2
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