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

· Product identifier
  · Trade name: Toxaphene
  · Part number: FRSP-180T
  · CAS Number: 8001-35-2
  · EC number: 232-283-3
  · Index number: 602-044-00-1
  · 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.
  
  GHS08 health hazard
  Carc. 2      H351  Suspected of causing cancer.

  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.
  Skin Irrit. 2  H315  Causes skin irritation.
  STOT SE 3     H335  May cause respiratory irritation.

(Contd. on page 2)
Trade name: Toxaphene

· **Label elements**

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

  · **Hazard pictograms**

    ![Hazard pictograms]

    GHS06  GHS08  GHS09

· **Signal word** Danger

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

· **Hazard statements**
  H301 Toxic if swallowed.
  H312 Harmful in contact with skin.
  H315 Causes skin 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.
  P261 Avoid breathing 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/eye protection/face protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P321 Specific treatment (see on this label).
  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.
  P308+P313 IF exposed or concerned: Get medical advice/attention.
  P312 Call a POISON CENTER/doctor if you feel unwell.
  P362+P364 Take off contaminated clothing and wash it before reuse.
  P332+P313 If skin irritation occurs: Get medical advice/attention.
  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
  8001-35-2 Toxaphene
- Identification number(s)
  - EC number: 232-283-3
  - Index number: 602-044-00-1

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.
    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.
  - 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: 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.
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 skin.
      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.
Trade name: Toxaphene

- **Penetration time of glove material**
  - For normal use: nitrile rubber: 1 hour
  - For direct contact with the chemical: butyl rubber: > 4 hours
- **Eye protection**: Not required.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance**: Solid
    - **Colour**: Not determined.
    - **Odour**: Characteristic
    - **Odour threshold**: Not determined.
    - **pH-value**: Not applicable.

- **Change in condition**
  - **Melting point/freezing point**: 65-90 °C
  - **Initial boiling point and boiling range**: Undetermined.

- **Flash point**: Not applicable.

- **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**: Not determined.

- **Vapour pressure at 20 °C**: 0.3 hPa

- **Density at 20 °C**: 1.65 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 %
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.
  - Harmful in contact with skin.

- LD/LC50 values relevant for classification:
  **ATE (Acute Toxicity Estimates)**
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>50 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>1,025 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

  **8001-35-2 Toxaphene**
<table>
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<tr>
<th>Route</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>50 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>1,075 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>1,025 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
- Skin corrosion/irritation
  - Causes skin irritation.
- 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 (cancer, 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.
### 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**

<table>
<thead>
<tr>
<th>HP 4</th>
<th>HP 5</th>
<th>HP 6</th>
<th>HP 7</th>
<th>HP 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritant - skin irritation and eye damage</td>
<td>Specific Target Organ Toxicity (STOT)/Aspiration Toxicity</td>
<td>Acute Toxicity</td>
<td>Carcinogenic</td>
<td>Ecotoxic</td>
</tr>
</tbody>
</table>

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

### 14 Transport information

- **UN-Number**
  UN2811

- **UN proper shipping name**
  2811 TOXIC SOLID, ORGANIC, N.O.S. (Toxaphene)

- **ADR**
  TOXIC SOLID, ORGANIC, N.O.S. (Toxaphene), MARINE POLLUTANT

- **IMDG**
  TOXIC SOLID, ORGANIC, N.O.S. (Toxaphene)

- **IATA**
  (Contd. on page 8)
### Transport hazard class(es)

- **ADR, IMDG**

  - **Class**: 6.1 Toxaphene
  - **Label**: 6.1

### IATA

  - **Class**: 6.1 Toxaphene
  - **Label**: 6.1

### 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**: Toxic substances.
- **Danger code (Kemler)**: 60
- **EMS Number**: F-A, S-A
- **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)**: 500 g
  - **Excepted quantities (EQ)**: Code: E4
  - **Maximum net quantity per inner packaging**: 1 g
  - **Maximum net quantity per outer packaging**: 500 g

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

### IMDG

- **Limited quantities (LQ)**: 500 g
  - **Excepted quantities (EQ)**: Code: E4
  - **Maximum net quantity per inner packaging**: 1 g
  - **Maximum net quantity per outer packaging**: 500 g

### UN "Model Regulation"

- **UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (TOXAPHENE), 6.1, II**
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 26.03.2019 Version number 2 Revision: 26.03.2019

Trade name: Toxaphene

(Contd. of page 8)

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 E1 Hazardous to the Aquatic Environment
  - 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 (EU) No 649/2012
  - Annex I Part 3
  - Annex V 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.

- 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)
  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 Irrit. 2: Skin corrosion/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