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

- Product identifier
- Trade name: 7,12-Dimethylbenz(a)anthracene
- Part number: RAH-025
- CAS Number: 57-97-6
- EC number: 200-359-5
- 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

  GHS08 health hazard

  Carc. 1A H350 May cause cancer.

  GHS07

  Acute Tox. 4 H302 Harmful if swallowed.

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

  GHS07 GHS08

  Signal word Danger

  Hazard-determining components of labelling:
  7,12-dimethylbenz[a]anthracene

  Hazard statements
  H302 Harmful if swallowed.
  H350 May cause cancer.
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.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterisation: Substances
CAS No. Description
57-97-6 7,12-dimethylbenz[a]anthracene
Identification number(s)
EC number: 200-359-5

4 First aid measures

Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: 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.
Special hazards arising from the substance or mixture: No further relevant information available.
Trade name: 7,12-Dimethylbenz(a)anthracene

- 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 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:
  - Precautions for safe handling
    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.
      Wash hands before breaks and at the end of work.
      Store protective clothing separately.
    - 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 1 hr. 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: Powder
Colour: Light yellow
Odour: Characteristic
Odour threshold: Not determined.

pH-value: Not applicable.

Change in condition
Melting point/freezing point: 121-123 °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:
Lower: Not determined.
Upper: Not determined.

Vapour pressure: Not applicable.

Density: Not determined.
Relative density: Not determined.
Vapour density: Not applicable.
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
  Harmful if swallowed.

ATE (Acute Toxicity Estimates)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>327 mg/kg (rat)</td>
</tr>
</tbody>
</table>

57-97-6 7,12-dimethylbenz[a]anthracene

- 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: May cause cancer.
  - 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.
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: 7,12-Dimethylbenz(a)anthracene

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 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 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 6: Acute Toxicity
  - HP 7: Carcinogenic

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

* 14 Transport information

- UN-Number
  - ADR, ADN, IMDG, IATA: not regulated
- UN proper shipping name
  - ADR, ADN, IMDG, IATA: not regulated
- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA: not regulated
- Class
  - ADR, ADN, IMDG, IATA: not regulated
- Packing group
  - ADR, IMDG, IATA: not regulated
- Environmental hazards:
  Not applicable.
Trade name: 7,12-Dimethylbenz(a)anthracene

· Special precautions for use: Not applicable.
· Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.
· UN "Model Regulation": not regulated

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.

· National regulations:
  · Additional classification according to Decree on Hazardous Materials, Annex II:
    Carcinogenic hazardous material group I (extremely dangerous).
    Carcinogenic hazardous material group II (very dangerous).
    Carcinogenic hazardous material group III (dangerous).

· Information about limitation of use:
  Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· 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)
  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. 4: Acute toxicity – Category 4
  Carc. 1A: Carcinogenicity – Category 1A

· * Data compared to the previous version altered.