1 Identification

- **Product identifier**
- **Trade name:** p-(Dimethylamino)azobenzene
- **Part number:** RCC-008
- **CAS Number:** 60-11-7
- **EC number:** 200-455-7

2 Hazard(s) Identification

- **Classification of the substance or mixture**
  
  skull and crossbones

  Acute Tox. 3 H301 Toxic if swallowed.
  Acute Tox. 3 H311 Toxic in contact with skin.
  Acute Tox. 3 H331 Toxic if inhaled.

  Skin Sens. 1 H317 May cause an allergic skin reaction.

- **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:**
  4-dimethylaminazobenzene

(Contd. on page 2)
Trade name: p-(Dimethylamino)azobenzene

- **Hazard statements**
  - Toxic if swallowed.
  - Toxic in contact with skin.
  - Toxic if inhaled.
  - May cause an allergic skin reaction.

- **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.
  - Contaminated work clothing should not be allowed out of the workplace.
  - Wear protective gloves / protective clothing.
  - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  - 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.
  - Call a POISON CENTER/doctor.
  - Call a POISON CENTER/doctor if you feel unwell.
  - Specific measures (see on this label).
  - IF SKIN irritation or rash occurs: Get medical advice/attention.
  - Remove/Take off immediately all contaminated clothing.
  - 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.
  - vPvB: Not applicable.

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### 3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
  - CAS No. Description
  - 60-11-7 4-dimethylaminoazobenzene
- **Identification number(s)**
  - EC number: 200-455-7

---

### 4 First Aid Measures

- **Description of first aid measures**
  - **General information:**
    - Immediately remove any clothing soiled by the product.
    - 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.
### 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**: Mouth respiratory protective device.

### 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**
    - 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 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 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: Not required.

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.

pH-value: Not applicable.

Change in condition
Melting point/freezing point: 111 °C
Initial boiling point and boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gas): Product is not flammable.

(Contd. on page 5)
### Decomposition temperature
Not determined.

### Auto-ignition temperature
Not determined.

### Explosive properties
Product does not present an explosion hazard.

<table>
<thead>
<tr>
<th>Explosion limits:</th>
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<tbody>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

### Vapour pressure
Not applicable.

### Density
Not determined.

#### 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.

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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.

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## 11 Toxicological Information

### Information on toxicological effects

### Acute toxicity

| LD/LC50 values relevant for classification: |

| ATE (Acute Toxicity Estimates) |
| --- | --- | --- |
| Oral | LD50 | 200 mg/kg (rat) |
| Dermal | LD50 | 300 mg/kg |
| Inhalative | LC50/4 h | 0.5 mg/L |

(Contd. on page 6)
Trade name: p-(Dimethylamino)azobenzene

<table>
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<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td>LD50 200 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - Skin corrosion/irritation: No irritant effect.
  - Serious eye damage/irritation: No irritating effect.
  - Respiratory or skin sensitisation: Sensitisation possible through skin contact.

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 2 (German Regulation) (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even 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. (4-dimethylaminoazobenzene)
  - IMDG, IATA: TOXIC SOLID, ORGANIC, N.O.S. (4-dimethylaminoazobenzene)
Trade name: p-(Dimethylamino)azobenzene

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
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<tbody>
<tr>
<td>ADG, IMDG, IATA</td>
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</table>

Class
- 6.1 Toxic substances.

Label
- 6.1

Packing group
- ADG, IMDG, IATA
- III

Environmental hazards:
- Not applicable.

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

Transport category
- 2
- Tunnel restriction code
- E

UN "Model Regulation":
- UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (4-DIMETHYLAMINOAZOBENZENE), 6.1, III

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
  - S7

- Directive 2012/18/EU
  - Named dangerous substances - ANNEX I Substance is not listed.

- Seveso category
  - H2 ACUTE TOXIC

(Contd. on page 8)
Trade name: p-(Dimethylamino)azobenzene

- 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 Sens. 1: Skin sensitisation – Category 1