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

- **Product identifier** BDMA (Benzyldimethylamine)
- **Trade name:** benzyldimethylamine, BDMA
- **Article number:** AGR1060, AGR1061, AGR1062, AGR1062A, AGR1062B
- **CAS Number:** 103-83-3
- **EC number:** 203-149-1
- **Index number:** 612-074-00-7
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the preparation:** Accelerator used in epoxy resins for microscopy.
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Agar Scientific
    Elektron Technology UK Ltd
    Parsonage Lane
    Stansted CM24 8GF
    United Kingdom
    sales@agarscientific.com
    Tel: +44 (0) 1279 813 519

- **Further information obtainable from:** Technical Support
- **Emergency telephone number:** 24 hours: +44 (0)1856 407333

---

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

  ![GHS02 flame]
  GHS02 flame
  Flam. Liq. 3  H226 Flammable liquid and vapour.

  ![GHS05 corrosion]
  GHS05 corrosion
  Skin Corr. 1B  H314 Causes severe skin burns and eye damage.

  ![GHS07]
  Acute Tox. 4  H302 Harmful if swallowed.
  Acute Tox. 4  H312 Harmful in contact with skin.
  Acute Tox. 4  H332 Harmful if inhaled.

(Contd. on page 2)
Aquatic Chronic 3  H412  Harmful to aquatic life with long lasting effects.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  - C; Corrosive
  - Xn; Harmful
- R34: Causes burns.
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
- R10-52/53: Flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Information concerning particular hazards for human and environment: Not applicable.

- Label elements
  - Labelling according to Regulation (EC) No 1272/2008
    The substance is classified and labelled according to the CLP regulation.
  - Hazard pictograms
    - GHS02
    - GHS05
    - GHS07

- Signal word Danger
- Hazard statements
  - H226 Flammable liquid and vapour.
  - H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
  - H314 Causes severe skin burns and eye damage.
  - H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310 Immediately call a POISON CENTER or doctor/physician.
  - 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 characterization: Substances
- CAS No. Description
  - 103-83-3 benzylidimethylamine
- Identification number(s)
  - EC number: 203-149-1
  - Index number: 612-074-00-7
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.
· After inhalation:
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if
  symptoms persist.
  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:
  Call for a doctor 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:
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· For safety reasons unsuitable extinguishing agents: Water with full jet
· 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
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions:
  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:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing 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 Ensure good ventilation/exhaustion at the workplace.
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. Avoid contact with the eyes and skin.
- Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Protection of hands:

   Protective gloves

   The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
   Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
   Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
   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
   The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

   Tightly sealed goggles
Trade name: benzyldimethylamine, BDMA

### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Fluid
  - **Form:** Fluid
  - **Colour:** Not determined.
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** -75 °C
  - **Boiling point/Boiling range:** 185 °C

- **Flash point:** 54 °C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Not determined.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapour pressure at 20 °C:** 2.8 hPa

- **Density at 20 °C:** 0.915 g/cm³
  - **Relative density:** Not determined.
  - **Vapour density:** Not determined.
  - **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.

- **Other information**
  - No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **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:
      | Oral     | LD50  | 265 mg/kg (rat) |
      | Dermal   | LD50  | 1660 mg/kg (rabbit) |
      | Inhalative | LC50/4 h | 2.06 mg/l (rat) |

- Primary irritant effect:
  - on the skin: Caustic effect on skin and mucous membranes.
  - on the eye: Strong caustic effect.

- Sensitization: No sensitizing 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.
  - Ecotoxicological effects:
    - Remark: Harmful to fish
  - Additional ecological information:
    - General notes:
      Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
      Do not allow product to reach ground water, water course or sewage system.
      Must not reach sewage water or drainage ditch undiluted or unneutralized.
      Danger to drinking water if even small quantities leak into the ground.
      Harmful to 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.
  - Uncleaned packaging:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- ADR, IMDG, IATA
  UN2619
Trade name: benzyldimethylamine, BDMA

- UN proper shipping name
  - ADR 2619 BENZYLDIMETHYLAMINE
  - IMDG, IATA BENZYLDIMETHYLAMINE

- Transport hazard class(es)
  - ADR
    - Class 8 Corrosive substances.
    - Label 8+3

  - IMDG, IATA
    - Class 8 Corrosive substances.
    - Label 8 + 3

- Packing group
  - ADR, IMDG, IATA II

- Environmental hazards:
  - Marine pollutant: No
  - Yes (PP)

- Special precautions for user
  - Warning: Corrosive substances.
  - Danger code (Kemler): 83
  - EMS Number: F-E,S-C

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

- Transport/Additional information:
  - ADR
    - Limited quantities (LQ) 1L
    - Transport category 2
    - Tunnel restriction code D/E
  - UN "Model Regulation": UN2619, BENZYLDIMETHYLAMINE, 8 (3), II

15 Regulatory information
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
- Department issuing MSDS: Sales department
- Contact:
  sales@agarscientific.com
  Tel: +44 (0) 1279 813 519

(Contd. on page 8)
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
- PP: Severe Marine Pollutant
- GHS: Globally Harmonized 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent