

**Safety Data Sheet**

according to UK REACH Regulation

**Dimethylaminoethanol**

Revision date: 31.05.2022

Product code: 6100

Page 1 of 6

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Dimethylaminoethanol

**Further trade names**

Ethanol, 2-(dimethylamino)-

**Synonyms:**

2-(Dimethylamino)ethanol; beta-(Dimethylamino)ethanol; 2-(Dimethylamino)ethyl alcohol; 2-(N,N-Dimethylamino)ethanol; Dimethyl(2-hydroxyethyl)amine; Dimethyl(hydroxyethyl)amine; Dimethylethanolamine; N,N-Dimethyl(2-hydroxyethyl)amine; N,N-Dimethyl-beta-hydroxyethylamine; N,N-Dimethylethanolamine; N,N-Dimethyl-N-(beta-hydroxyethyl)amine; Norcholine

CAS No: 108-01-0

Index No: 603-047-00-0

EC No: 203-542-8

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**Precursor for [<sup>11</sup>C]CholinePrecursor for [<sup>18</sup>F]Fluoroalkylcholine**1.3. Details of the supplier of the safety data sheet**

|                 |   |                               |
|-----------------|---|-------------------------------|
| Company name:   | ABX advanced biochemical compounds        |                               |
|                 | Biomedizinische Forschungsreagenzien GmbH |                               |
| Street:         | Heinrich-Gläser-Straße 10-14              |                               |
| Place:          | 01454 Radeberg                            |                               |
| Telephone:      | +49 3528 4041 60                          | Telefax: +49 3528 4041 65     |
| e-mail:         | info@abx.de                               |                               |
| Contact person: | Dr. Christoph Meyer                       | Telephone: +49 3528 4041 8732 |
| e-mail:         | meyer@abx.de                              |                               |
| Internet:       | http://www.abx.de                         |                               |

**1.4. Emergency telephone number:**

+49 3528 4041 60

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Flam. Liq. 3; H226  
 Acute Tox. 4; H332  
 Acute Tox. 4; H312  
 Acute Tox. 4; H302  
 Skin Corr. 1B; H314

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

2-dimethylaminoethanol; N,N-dimethylethanolamine

**Signal word:** Danger

**Safety Data Sheet**

according to UK REACH Regulation

**Dimethylaminoethanol**

Revision date: 31.05.2022

Product code: 6100

Page 2 of 6

**Pictograms:****Hazard statements**

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.             |
| H302 | Harmful if swallowed.                    |
| H312 | Harmful in contact with skin.            |
| H332 | Harmful if inhaled.                      |
| H314 | Causes severe skin burns and eye damage. |

**Precautionary statements**

|                |  |
|----------------|--|
| P403           | Store in a well-ventilated place.  |
| P235           | Keep cool.   |
| P233           | Keep container tightly closed.   |
| 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/doctor.   |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.                                    |

**SECTION 3: Composition/information on ingredients****3.1. Substances****Chemical characterization**

Ethanol, 2-(dimethylamino)-

Sum formula: C<sub>4</sub>H<sub>11</sub>NO

Molecular weight: 89.14

**Hazardous components**

| CAS No   | Chemical name   |              |          | Quantity     |
|----------|---|--------------|----------|--------------|
|          | EC No   | Index No     | REACH No |              |
|          | Classification (GB CLP Regulation)  |              |          |              |
| 108-01-0 | 2-dimethylaminoethanol; N,N-dimethylethanolamine  |              |          | 95 - < 100 % |
|          | 203-542-8   | 603-047-00-0 |          |              |
|          | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B; H226 H332 H312 H302 H314 |              |          |              |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No   | EC No     | Chemical name  | Quantity     |
|----------|-----------|--|--------------|
|          |           | Specific Conc. Limits, M-factors and ATE   |              |
| 108-01-0 | 203-542-8 | 2-dimethylaminoethanol; N,N-dimethylethanolamine   | 95 - < 100 % |
|          |           | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 1220 mg/kg; oral: LD50 = 2000 mg/kg STOT SE 3; H335: >= 5 - 100 |              |

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

**After contact with skin**

After contact with skin, wash immediately with: Water. Change contaminated clothing.

# Safety Data Sheet

according to UK REACH Regulation

## Dimethylaminoethanol

Revision date: 31.05.2022

Product code: 6100

Page 3 of 6

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps.

Rinse mouth thoroughly with water. Call a physician in any case!

### SECTION 5: Firefighting measures

**5.1. Extinguishing media****Suitable extinguishing media**

Atomized water. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

### SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### SECTION 7: Handling and storage

**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.

**Further information on storage conditions**

Storage

of °C: 15

up to °C: 25

Protect against: Light.

### SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Safety Data Sheet**

according to UK REACH Regulation

**Dimethylaminoethanol**

Revision date: 31.05.2022

Product code: 6100

Page 4 of 6

**Exposure limits (EH40)**

| CAS No   | Substance              | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|----------|------------------------|-----|-------------------|-----------|---------------|--------|
| 108-01-0 | 2-Dimethylaminoethanol | 2   | 7.4               |           | TWA (8 h)     | WEL    |
|          |                        | 6   | 22                |           | STEL (15 min) | WEL    |

**8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: colourless, light yellow  
 Odour: like: amines

**Test method****Changes in the physical state**

Boiling point or initial boiling point and boiling range:

132 - 135 °C

Flash point:

39 °C DIN EN ISO 1523

Lower explosion limits:

1,4 vol. %

Upper explosion limits:

12,2 vol. %

pH-Value (at 20 °C):

10,5 - 11,0

Water solubility:

partially soluble

**Solubility in other solvents**

Methanol.

**SECTION 10: Stability and reactivity****10.6. Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx).

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Acute toxicity, inhalant.

| CAS No   | Chemical name                                    |                 |         |        |        |  |
|----------|--|-----------------|---------|--------|--------|--|
|          | Exposure route                                   | Dose            | Species | Source | Method |  |
| 108-01-0 | 2-dimethylaminoethanol; N,N-dimethylethanolamine |                 |         |        |        |  |
|          | oral   | LD50 2000 mg/kg | Rat     | GESTIS |        |  |
|          | dermal   | LD50 1220 mg/kg | Rabbit  | GESTIS |        |  |
|          | inhalation vapour                                | ATE 11 mg/l     |         |        |        |  |
|          | inhalation dust/mist                             | ATE 1,5 mg/l    |         |        |        |  |

## Safety Data Sheet

according to UK REACH Regulation

### Dimethylaminoethanol

Revision date: 31.05.2022

Product code: 6100

Page 5 of 6

#### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 12: Ecological information

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### List of Wastes Code - residues/unused products

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

##### List of Wastes Code - used product

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

##### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

#### Contaminated packaging

Non-contaminated packages may be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

|  |                        |
|--|------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 2051                |
| <b>14.2. UN proper shipping name:</b>    | 2-Dimethylaminoethanol |
| <b>14.3. Transport hazard class(es):</b> | 8 (3)                  |
| <b>14.4. Packing group:</b>              | II                     |
| Hazard label:                            | 8 (3)                  |

#### Inland waterways transport (ADN)

|  |                        |
|--|------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 2051                |
| <b>14.2. UN proper shipping name:</b>    | 2-Dimethylaminoethanol |
| <b>14.3. Transport hazard class(es):</b> | 8 (3)                  |
| <b>14.4. Packing group:</b>              | II                     |
| Hazard label:                            | 8 (3)                  |

#### Marine transport (IMDG)

|  |                        |
|--|------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 2051                |
| <b>14.2. UN proper shipping name:</b>    | 2-Dimethylaminoethanol |
| <b>14.3. Transport hazard class(es):</b> | 8 (3)                  |
| <b>14.4. Packing group:</b>              | II                     |

**Safety Data Sheet**

according to UK REACH Regulation

**Dimethylaminoethanol**

Revision date: 31.05.2022

Product code: 6100

Page 6 of 6

Hazard label: 8 (3)

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number or ID number:** UN 2051**14.2. UN proper shipping name:** 2-Dimethylaminoethanol**14.3. Transport hazard class(es):** 8 (3)**14.4. Packing group:** II

Hazard label: 8 (3)

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information****Relevant H and EUH statements (number and full text)**

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.             |
| H302 | Harmful if swallowed.                    |
| H312 | Harmful in contact with skin.            |
| H314 | Causes severe skin burns and eye damage. |
| H332 | Harmful if inhaled.                      |