according to UK REACH Regulation

|   | QNB  |                               |             |
|---|--|-------------------------------|-------------|
| Revision date: 27.04.2022   | Product code:  | 2830                          | Page 1 of 5 |
| SECTION 1: Identification of  | the substance/mixture and of the   | company/undertaking           |             |
| I.1. Product identifier<br>QNB  |  |                               |             |
| Further trade names<br>Benzeneacetic acid, a-hyd  | lroxy-a-phenyl-, 1-azabicyclo[2.2.2]oct-3  | 3-yl ester                    |             |
| 3-Hydroxyquinuclidine ber   | (ester); Benzilic acid, 3-quinuclidinyl est<br>nzilate; 3-Oxyquinuclidine benzilate; 3-C<br>enzilate; NSC 173698; Ro 2-3308<br>6581-06-2 |                               |             |
| .2. Relevant identified uses of   | the substance or mixture and uses ad   | vised against                 |             |
| Use of the substance/mixture<br>Precursor for [11C]Me-QN<br>([11C]N-methyl-quinuclidir<br>I.3. Details of the supplier of the | NB<br>h-3-yl benzilate)  |                               |             |
| Company name:   | ABX advanced biochemical con   | noounds                       |             |
|   | Biomedizinische Forschungsrea  | •                             |             |
| 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  |                               |             |
| I.4. Emergency telephone_<br>number:  | +49 3528 4041 60   |                               |             |
|   | ation  |                               |             |
| SECTION 2: Hazards identific  | Jacon  |                               |             |

Acute Tox. 2; H300

Full text of hazard statements: see SECTION 16.

# 2.2. Label elements

# **GB CLP Regulation**

# Hazard components for labelling 3-Quinuclidinyl benzilate

Quinuciidinyi benzilate

Signal word: Pictograms:



Hazard statements

H300 H300+H330 Fatal if swallowed. Fatal if swallowed or if inhaled.

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| QNB   |  |             |  |  |  |
|---|--|-------------|--|--|--|
| Revision date: 27.04.2022   | Product code: 2830   | Page 2 of 5 |  |  |  |
| Precautionary statemen  | ts   |             |  |  |  |
| P280  | Wear protective gloves/protective clothing/eye protection/face protection/hearing<br>protection. |             |  |  |  |
| P301+P310   | IF SWALLOWED: Immediately call a POISON CENTER/doctor.   |             |  |  |  |
| SECTION 3: Composition/information on ingredients   |  |             |  |  |  |
| 3.1. Substances   |  |             |  |  |  |
| Chemical characterization<br>Benzeneacetic acid, a-hydroxy-a-phenyl-, 1-azabicyclo[2.2.2]oct-3-yl ester |  |             |  |  |  |
| Sum formula:  | C21H23NO3  |             |  |  |  |
| Molecular weight:   | 337.41   |             |  |  |  |
| Hazardous components  |  |             |  |  |  |

# CAS No Chemical name Quantity EC No Index No REACH No Classification (GB CLP Regulation) 6581-06-2 3-Quinuclidinyl benzilate 95 - < 100 %</td> Acute Tox. 2; H300 V V V V

# 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. L | imits, M-factors and ATE  |              |
| 6581-06-2 |                  | 3-Quinuclidinyl benzilate | 95 - < 100 % |
|           | oral: LD50 = 8   | - 14 mg/kg                |              |

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air.

#### After contact with skin

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

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

#### After ingestion

If swallowed, immediately drink: Water. Call a physician immediately.

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Suitable extinguishing media: Foam. Extinguishing powder. Carbon dioxide (CO2). Atomized water.

#### 5.3. Advice for firefighters

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

#### Additional information

Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

# **SECTION 6: Accidental release measures**

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# QNB

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#### 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

Take up mechanically. 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

Do not breathe dust. Conditions to avoid: skin contact. Eye contact. Wear personal protection equipment. When using do not eat, drink, smoke, sniff.

#### Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

#### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container dry. Keep container tightly closed.

# Further information on storage conditions

Recommended storage temperature: of °C: 2 up to °C: 8

Protect against: Light. Store under (Gas): argon. Nitrogen.

#### **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### Additional advice on limit values

To date, no national critical limit values exist.

## 8.2. Exposure controls

#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

#### **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

| Physical state:<br>Colour:                                     | solid<br>colourless  |                   |
|--|----------------------|-------------------|
| Changes in the physical state<br>Melting point/freezing point: |                      | 163 - 168 °C      |
| Water solubility:  |                      | partially soluble |
| Solubility in other solvents<br>Chloroform. Ethanol dimeth     | ylsulphoxide (DMSO). |                   |

#### **SECTION 10: Stability and reactivity**

#### 10.4. Conditions to avoid

Light.

#### 10.6. Hazardous decomposition products

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

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## **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in GB CLP Regulation

#### Acute toxicity

| CAS No    | Chemical name             |               |  |  |        |        |
|-----------|---------------------------|---------------|--|--|--------|--------|
|           | Exposure route            | Dose          |  | Species                                      | Source | Method |
| 6581-06-2 | 3-Quinuclidinyl benzilate |               |  |  |        |        |
|           | oral                      | LD50<br>mg/kg |  | Practical<br>experience/human<br>experience. |        |        |

# **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.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### 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

#### **SECTION 14: Transport information**

Lond there are art (ADD/DID)

| Land transport (ADR/RID)          |  |
|-----------------------------------|--|
| 14.1. UN number or ID number:     | UN 2811  |
| 14.2. UN proper shipping name:    | toxic solid, organic, n.o.s. (3-Quinuclidinyl benzilate) |
| 14.3. Transport hazard class(es): | 6.1  |
| 14.4. Packing group:              | II   |
| Hazard label:                     | 6.1  |
| Inland waterways transport (ADN)  |  |
| 14.1. UN number or ID number:     | UN 2811  |
| 14.2. UN proper shipping name:    | toxic solid, organic, n.o.s. (3-Quinuclidinyl benzilate) |
|                                   |  |

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| QNB                                |  |             |  |  |
|------------------------------------|--|-------------|--|--|
| Revision date: 27.04.2022          | Product code: 2830                                       | Page 5 of 5 |  |  |
| 14.3. Transport hazard class(es):  | 6.1  |             |  |  |
| 14.4. Packing group:               | II   |             |  |  |
| Hazard label:                      | 6.1  |             |  |  |
| Marine transport (IMDG)            |  |             |  |  |
| 14.1. UN number or ID number:      | UN 2811  |             |  |  |
| 14.2. UN proper shipping name:     | toxic solid, organic, n.o.s. (3-Quinuclidinyl benzilate) |             |  |  |
| 14.3. Transport hazard class(es):  | 6.1  |             |  |  |
| 14.4. Packing group:               | II   |             |  |  |
| Hazard label:                      | 6.1  |             |  |  |
| Air transport (ICAO-TI/IATA-DGR)   |  |             |  |  |
| 14.1. UN number or ID number:      | UN 2811  |             |  |  |
| 14.2. UN proper shipping name:     | toxic solid, organic, n.o.s. (3-Quinuclidinyl benzilate) |             |  |  |
| 14.3. Transport hazard class(es):  | 6.1  |             |  |  |
| 14.4. Packing group:               | II   |             |  |  |
| Hazard label:                      | 6.1  |             |  |  |
| SECTION 15: Regulatory information |  |             |  |  |

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

# National regulatory information

Water hazard class (D):

3 - highly hazardous to water

# **SECTION 16: Other information**

# Relevant H and EUH statements (number and full text)

H300Fatal if swallowed.H300+H330Fatal if swallowed or if inhaled.