

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Benzoic acid > 99.5 % for analysis

Revision date: 07.07.2023

Product code: 15204

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

Benzoic acid > 99.5 % for analysis

REACH Registration Number: 01-2119455536-33-XXXX
CAS No: 65-85-0
Index No: 607-705-00-8
EC No: 200-618-2

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290
Telephone: 0203/5194-107/117

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT RE 1; H372

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:****Hazard statements**

H315 Causes skin irritation.

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H318 Causes serious eye damage.
H372 Causes damage to organs (lung) through prolonged or repeated exposure if inhaled.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
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.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C6H5COOH
Molecular weight: 122,12 g/mol

Hazardous components

| CAS No | Chemical name | | | Quantity |
|---------|--|--------------|-----------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 65-85-0 | Benzoic acid | | | 100 % |
| | 200-618-2 | 607-705-00-8 | 01-2119455536-33-XXXX | |
| | Skin Irrit. 2, Eye Dam. 1, STOT RE 1; H315 H318 H372 | | | |

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 | | |
| 65-85-0 | 200-618-2 | Benzoic acid | 100 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 2250 mg/kg | | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.
Call a physician immediately.

After contact with skin

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.

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Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Gastrointestinal complaints

Vomiting

Irritant

corrosive

Cough

Risk of serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible solids

Danger of dust explosion.

Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO₂) Carbon monoxide

In case of warming: Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

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

Additional information

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

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For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

- Clean contaminated articles and floor according to the environmental legislation.

Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Read label before use. Handle and open container with care.
- Avoid dust formation. Do not breathe dust.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

- Usual measures for fire prevention.

Advice on general occupational hygiene

- Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities
- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Store in a well-ventilated place. Keep container tightly closed.
- Store in a place accessible by authorized persons only.

Further information on storage conditions

- Store in a dry place.
- storage temperature < +30°

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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DNEL/DMEL values

| CAS No | Substance | | |
|--------------------------|----------------|----------|------------------------|
| DNEL type | Exposure route | Effect | Value |
| 65-85-0 | Benzoic acid | | |
| Worker DNEL, long-term | inhalation | systemic | 3 mg/m ³ |
| Worker DNEL, long-term | inhalation | local | 0,1 mg/m ³ |
| Worker DNEL, long-term | dermal | systemic | 62,5 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 1,5 mg/m ³ |
| Consumer DNEL, long-term | inhalation | local | 0,06 mg/m ³ |
| Consumer DNEL, long-term | dermal | systemic | 31,25 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 16,6 mg/kg bw/day |

PNEC values

| CAS No | Substance | |
|--|--------------|--|
| Environmental compartment | Value | |
| 65-85-0 | Benzoic acid | |
| Freshwater | 0,34 mg/l | |
| Freshwater (intermittent releases) | 0,331 mg/l | |
| Marine water | 0,034 mg/l | |
| Freshwater sediment | 1,75 mg/kg | |
| Marine sediment | 0,175 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 100 mg/l | |
| Soil | 0,151 mg/kg | |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Avoid dust formation. Do not breathe dust.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

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Trade name/designation KCL 741 Dermatril® L
Suitable material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.
Take off immediately all contaminated clothing.
Wash hands before breaks and after work.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Filtering device with filter or ventilator filtering device of type: P2

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-------------------------|
| Physical state: | solid |
| Colour: | white |
| Odour: | characteristic |
| Odour threshold: | No data available |
| Melting point/freezing point: | 121-123 °C |
| Boiling point or initial boiling point and boiling range: | 249,2 °C |
| Flammability: | No data available |
| Lower explosion limits: | No data available |
| Upper explosion limits: | No data available |
| Flash point: | 121 °C °C |
| Auto-ignition temperature: | 570 °C °C |
| Decomposition temperature: | No data available |
| pH-Value (at 20 °C): | 2,5-3,5 |
| Viscosity / kinematic: | No data available |
| Water solubility: (at 25 °C) | 2,9 g/L |
| Solubility in other solvents | No data available |
| Dissolution rate: | No data available |
| Partition coefficient n-octanol/water: | No data available |
| Dispersion stability: | No data available |
| Vapour pressure: (at 20 °C) | 0,001 hPa |
| Vapour pressure: (at 96 °C) | 1,3 hPa |
| Density (at 20 °C): | 1,321 g/cm ³ |
| Relative density: | No data available |
| Bulk density: | ~500 kg/m ³ |
| Relative vapour density: | No data available |
| Particle characteristics: | No data available |

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9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

0

Solid content:

100%

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Danger of dust explosion.

In case of warming: Vapours may form explosive mixtures with air.

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

Fluorine

Alkali (lye)

Oxidising agent

Nitrite

Reducing agent

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|---------|----------------|-------------------------|---------|---------------------|------------------------------------|
| | Exposure route | Dose | Species | Source | Method |
| 65-85-0 | Benzoic acid | | | | |
| | oral | LD50 mg/kg 2250 | Mouse | Study report (1979) | OECD Guideline 401 |
| | dermal | LD50 mg/kg > 2000 | Rabbit | Study report (1974) | 4 rabbits were dermally exposed |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

May cause sensitization by inhalation and skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

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

Causes damage to organs through prolonged or repeated exposure. (Benzoic acid)

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Gastrointestinal complaints

Vomiting

Irritant

corrosive

Cough

Risk of serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

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Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | | |
|---------|--------------------------|---------------|-----------|---------|------------------------------------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 65-85-0 | Benzoic acid | | | | | |
| | Acute fish toxicity | LC50 mg/l | 47,3 | 96 h | Oncorhynchus mykiss | Study report (1979) other: EPA-660/3-75-00 1 |
| | Acute algae toxicity | ErC50 mg/l | > 33,1 | 72 h | Pseudokirchneriella subcapitata | Study report (2010) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | > 100 | 48 h | Daphnia magna | Study report (1979) other: EPA-660/3-75-00 9 |
| | Fish toxicity | NOEC mg/l | > 120 | 28 d | Oncorhynchus mykiss | Secondary source (2004) OECD Guideline 204 |
| | Crustacea toxicity | NOEC mg/l | >= 25 | 21 d | Daphnia magna | Secondary source (2004) OECD Guideline 211 |

12.2. Persistence and degradability

> 71 %; 5 d

Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------|---------|
| 65-85-0 | Benzoic acid | 1,88 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

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Land transport (ADR/RID)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

National regulatory information

| | |
|--------------------------|--|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 1 - slightly hazardous to water |

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 12.

Abbreviations and acronyms

Skin Irrit: Skin irritation
Eye Dam: Eye damage
STOT RE: Specific target organ toxicity - repeated exposure

Relevant H and EUH statements (number and full text)

| | |
|------|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H372 | Causes damage to organs (lung) through prolonged or repeated exposure if inhaled. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product

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named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.