

## Chemical Safety Data Sheet MSDS / SDS

## Benzoic acid

Revision Date:2025-01-25 Revision Number:1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## Product identifier

Product name : Benzoic acid  
CBnumber : CB8698780  
CAS : 65-85-0  
EINECS Number : 200-618-2  
Synonyms : Benzoic acid,Acide benzoique

## Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

## SECTION 2: Hazards identification

## GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

## Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continuerinsing.  
P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container to.....

#### **Hazard statements**

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

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## SECTION 3: Composition/information on ingredients

### **Substance**

|              |  |
|--------------|--|
| Product name | : Benzoic acid                                 |
| Synonyms     | : Benzoic acid,Acide benzoique                 |
| CAS          | : 65-85-0                                      |
| EC number    | : 200-618-2                                    |
| MF           | : C <sub>7</sub> H <sub>6</sub> O <sub>2</sub> |
| MW           | : 122.12                                       |

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## SECTION 4: First aid measures

### **Description of first aid measures**

#### **General advice**

Show this material safety data sheet to the doctor in attendance.

#### **If inhaled**

After inhalation: fresh air. Call in physician.

#### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### **In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### **If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **Indication of any immediate medical attention and special treatment needed**

No data available

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

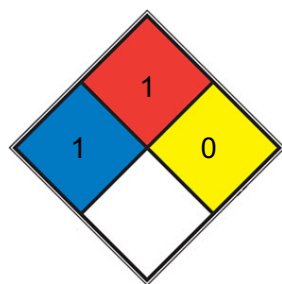
### Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

### NFPA 704



■ HEALTH 1 Exposure would cause irritation with only minor residual injury (e.g. [acetone](#), sodium bromate, potassium chloride)

Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion

■ FIRE 1 can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. [mineral oil](#), ammonia)

■ REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N<sub>2</sub>](#))

□ SPEC.

□ HAZ.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

## Environmental precautions

Do not let product enter drains.

## Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## Reference to other sections

For disposal see section 13.

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# SECTION 7: Handling and storage

## Precautions for safe handling

### Advice on safe handling

Work under hood. Do not inhale substance/mixture.

### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

## Conditions for safe storage, including any incompatibilities

### Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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# SECTION 8: Exposure controls/personal protection

## control parameter

### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

## Exposure controls

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

#### Skin protection

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](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatrill? L

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](http://www.kcl.de)).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatrill? L

### Body Protection

protective clothing

### Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

|  |  |
|--|--|
| Appearance                                   | white crystalline                        |
| Odour  | No data available                        |
| Odour Threshold                              | No data available                        |
| pH   | 2,8 at 25 °C                             |
| Melting point/freezing point                 | Melting point/range: 121 - 125 °C - lit. |
| Initial boiling point and boiling range      | 249 °C - lit.                            |
| Flash point                                  | 250 °F                                   |
| Evaporation rate                             | No data available                        |
| Flammability (solid, gas)                    | No data available                        |
| Upper/lower flammability or explosive limits | No data available                        |
| Vapour pressure                              | 10 mm Hg ( 132 °C)                       |
| Vapour density                               | 4,22 - (Air = 1.0)                       |
| Relative density                             | No data available                        |

|  |  |
|--|--|
| Water solubility                       | soluble, clear, colorless (95% ethanol, 1gm/3mL)                                 |
| Partition coefficient: n-octanol/water | log Pow: 1,88 - Bioaccumulation is not expected.                                 |
| Autoignition temperature               | No data available  |
| Decomposition temperature              | No data available  |
| Viscosity                              | Viscosity, kinematic: No data available Viscosity, dynamic: No data available    |
| Explosive properties                   | No data available  |
| Oxidizing properties                   | No data available  |
| Henry's Law Constant                   | (x 10 <sup>-8</sup> atm·m <sup>3</sup> /mol): 7.02 (calculated, U.S. EPA, 1980a) |

### Other safety information

Surface tension 67,5 mN/m at 1g/l at 20 °C

- OECD Test Guideline 115

Relative vapor density

4,22 - (Air = 1.0)

## SECTION 10: Stability and reactivity

### Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with: Fluorine

Exothermic reaction with:

bases

Strong oxidizing agents Strong bases

nitrites

strong reducing agents

### Conditions to avoid

no information available

### Incompatible materials

No data available

### Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

## Information on toxicological effects

### Acute toxicity

LD50 Oral - Mouse - male and female - 2.250 mg/kg

(OECD Test Guideline 401)

Symptoms: Nausea, Vomiting, Irritation of mucous membranes

LC50 Inhalation - Rat - male and female - 4 h - > 12,2 mg/l

Remarks: (ECHA)Symptoms: Cough, Possible damages:, mucosal irritations

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg Remarks: (ECHA)

### Skin corrosion/irritation

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Corrosive - 21 Days

(Directive 67/548/EEC, Annex V, B.5.) (Regulation (EC) No 1272/2008, Annex VI)

### Respiratory or skin sensitization

Remarks:

(ECHA)

### Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster fibroblasts

Metabolic activation: without metabolic activation

Result: Positive results were obtained in some in vitro tests. Remarks: (ECHA)

Test Type: Micronucleus test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 487

Result: negative

### Carcinogenicity

No data available

### Reproductive toxicity

No data available

### Specific target organ toxicity - single exposure

No data available

### Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Lungs Remarks:

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### Aspiration hazard

No data available

### Toxicity

LD50 orally in Rabbit: 1700 mg/kg LD50 dermal Rabbit > 5000 mg/kg

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## SECTION 12: Ecological information

### Toxicity

**Toxicity to fish**

static test LC50 - *Lepomis macrochirus* - 44,6 mg/l - 96 h (US-EPA)

**Toxicity to daphnia and other aquatic invertebrates**

static test LC50 - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (US-EPA)

**Toxicity to algae**

static test ErC50 - *Pseudokirchneriella subcapitata* - > 33,1 mg/l - 72 h

(OECD Test Guideline 201)

**Toxicity to bacteria**

static test IC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

microtox test EC50 - *Photobacterium phosphoreum* - 17 mg/l - 30 min

Remarks: (Lit.)

**Persistence and degradability**

Biodegradability anaerobic - Exposure time 35 d

Result: 89,5 % - Biodegradable (OECD Test Guideline 311)

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Toxics Screening Level**

The initial threshold screening level (ITSL) for benzoic acid is 5 µg/m<sup>3</sup>.

**Other adverse effects**

No data available

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## SECTION 13: Disposal considerations

**Waste treatment methods****Product**

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

**Incompatibilities**

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides, caustics, ammonia, amines, isocyanates. Dust forms an explosive mixture with air.



## Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

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## SECTION 14: Transport information

### UN number

ADR/RID: - IMDG: - IATA: -

### UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

### Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### Packaging group

ADR/RID: - IMDG: - IATA: -

### Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### Special precautions for user

No data available

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## SECTION 15: Regulatory information

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

#### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: <https://www.mem.gov.cn/>

#### Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: <https://www.mee.gov.cn/>

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: <https://echa.europa.eu/>

Korea Existing Chemicals List (KECL):Listed. website: <http://ncis.nier.go.kr>

New Zealand Inventory of Chemicals (NZIoC):Listed. website: <https://www.epa.govt.nz/>

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: <https://emb.gov.ph/>

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: <https://www.epa.gov/>

Vietnam National Chemical Inventory:Listed. website: <https://chemicaldata.gov.vn/>

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## SECTION 16: Other information

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

## References

- 【1】 CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- 【2】 ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- 【3】 ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>
- 【4】 eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- 【5】 ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- 【6】 Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- 【7】 HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- 【8】 IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- 【9】 IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- 【10】 Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

## Other Information

The substance begins to sublime at 100°C.

### Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.