Benzoic Acid

Safety Data Sheet

According to the United Nations GHS (Rev. 11, 2025)
Issue date: 11/19/2025 Revision date: 11/19/2025 Version: 1.0

SECTION 1: Identification

1.1. GHS Product identifier

Product form	:	Substance
Trade name	:	Benzoic Acid
Chemical name	:	Benzoic acid
CAS-No.	:	65-85-0
Formula	:	$C_7H_6O_2$

1.2. Other means of identification

Other means of identification	:	No information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	:	No information available.
Restrictions on use	:	Used as intermediates for pharmaceuticals and dyes, as preservatives for medicines, foods and feeds, as well as rust inhibitors for steel equipment.

1.4. Supplier's details

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1.5. Emergency phone number

Emergency number	:	+86-027-83412982

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Acute toxicity (oral), Category 5	H303		
Skin corrosion/irritation, Category 2	H315		
Serious eye damage/eye irritation, Category 1	H318		
Specific target organ toxicity – Repeated exposure, Category 1	H372	(lungs)	(inhalation)
Hazardous to the aquatic environment – Acute Hazard, Category 3	H402		

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects	:	May be harmful if swallowed. Causes skin irritation. Causes serious eye damage. Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation). Harmful to aquatic life.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



Signal word (GHS UN) : Danger

Hazard statements (GHS UN) : H303 - May be harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H372 - Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).
H402 - Harmful to aquatic life.

Precautionary statements (GHS UN) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264+P265 - Wash hands thoroughly after handling. Do not touch eyes.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P317 - IF SWALLOWED: Get medical help.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P317 - If skin irritation occurs: Get medical help.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to the United Nations GHS
Benzoic acid	CAS-No.: 65-85-0	99 - 100	Acute toxicity (oral), Category 5, H303 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Repeated exposure, Category 1, H372 (lungs) (inhalation) Hazardous to the aquatic environment – Acute Hazard, Category 3, H402

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Remove contaminated clothing and shoes. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects : May be harmful if swallowed. Causes skin irritation. Causes serious eye damage. Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Dry chemical, carbon dioxide, water spray, alcohol-resistant foam.
Unsuitable extinguishing media : High volume water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released, such as: carbon monoxide, carbon dioxide.

5.3. Special protective actions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment. Do not flush into surface water or sewer system.

6.3. Methods and materials for containment and cleaning up

For containment : Collect spillage. Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ensure adequate ventilation, especially in confined areas. Wear personal protective equipment.

Hygiene measures : Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep container tightly closed. Keep dry. Keep cool. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep locked up and out of reach of children. Store in accordance with local regulations.
Incompatible materials : Strong oxidizing agents, reducing agents, bases, moisture, metals.
Storage temperature : No information available.
Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Benzoic acid (65-85-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH® TLV® TWA	0.5 mg/m³ (inhalable fraction and vapor)
ACGIH® chemical category	Not Suspected as a Human Carcinogen, Skin - potential significant contribution to overall exposure by the cutaneous route

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas. Safety shower. Eyewash station. Remove all sources of ignition.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves.
Eye protection : Safety glasses.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Solid
Appearance : Scaly or needle-like crystals
Colour : White
Odour : Slight benzaldehyde odor
Odour threshold : Not available
Melting point : 122 °C
Freezing point : Not available
Boiling point : 249 °C
Flammability : Non flammable.
Lower explosion limit : Not available
Upper explosion limit : Not available
Flash point : Not available
Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : 2.8

pH solution	:	Not available
Viscosity, kinematic (calculated value) (40 °C)	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	1.88
Vapour pressure	:	0.0011 hPa (20 °C)
Vapour pressure at 50 °C	:	Not available
Density	:	1.321 g/cm^3 (20 °C)
Relative density	:	1.321 (20 °C)
Relative vapour density at 20 °C	:	Not available
Solubility	:	3.5 g/L (25 °C)
Viscosity, dynamic	:	Not available
Explosive properties	:	Not explosive
Oxidising properties	:	Non oxidizing
Particle size	:	Not available
Surface tension	:	67.5 mN/m (20 °C, 1000 mg/L)
pKa	:	4.19 (20 °C)

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Dust could form explosive mixtures with air.

10.4. Conditions to avoid

Heat, flames, sparks. Prevent formation of dust clouds. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents, reducing agents, bases, moisture, metals.

10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	May be harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Benzoic acid (65-85-0)	
LD50 oral rat	2250 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 12.2 mg/L/4 h

Skin corrosion/irritation	:	Causes skin irritation. pH: 2.8
Serious eye damage/irritation	:	Causes serious eye damage. pH: 2.8
Respiratory or skin sensitization	:	Not classified

Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).

Benzoic acid (65-85-0)	
NOAEL (oral, 90 days)	1000 mg/kg bodyweight/day (subacute; rabbit)
NOAEL (dermal, 90 days)	2500 mg/kg bodyweight/day (subacute; rabbit)
NOAEC (inhalation, gas, 90 days)	250 mg/m³ (subacute; rat) (respiratory: lung)

Benzoic acid (65-85-0)	
STOT-repeated exposure	Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life.
Hazardous to the aquatic environment, short–term (acute) : Harmful to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Not classified

Benzoic acid (65-85-0)	
LC50 - Fish [1]	44.6 mg/L/96 h (Lepomis macrochirus)
EC50 - Crustacea [1]	> 100 mg/L/48 h (Daphnia magna)
EC50 - Algae [1]	> 33.1 mg/L/72 h (Pseudokirchnerella subcapitata)
NOEC chronic fish	120 mg/L/28 d (Oncorhynchus mykiss)
NOEC chronic crustacea	≥ 25.21 mg/L/21 d (Daphnia magna)
NOEC chronic algae	3.4 mg/L/72 h (Pseudokirchnerella subcapitata)

12.2. Persistence and degradability

Benzoic acid (65-85-0)	
Persistence and degradability	Readily biodegradable

12.3. Bioaccumulative potential

Benzoic acid (65-85-0)	
Partition coefficient n-octanol/water (Log Pow)	1.88

12.4. Mobility in soil

Benzoic acid (65-85-0)	
Koc	15.49 (20 °C)

12.5. Other adverse effects

Ozone : Not classified
Global warming : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
14.1. UN number		
Not regulated	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

UN RTDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Benzoic acid (65-85-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16: Other information

Version	:	1.0
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Revision date	:	11/19/2025

Indication of changes:
No information available.

Abbreviations and acronyms	:	SDS - Safety Data Sheet LC50 - Median lethal concentration LD50 - Median lethal dose EC50 - Median effective concentration NOEC - No-Observed Effect Concentration IARC - International Agency for Research on Cancer IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods
Data sources	:	ECHA. Loli.
Training advice	:	Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	:	No information available.

Full text of H-statements:	
H303	May be harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.