

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
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SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifiers

Product name Benzoic acid
Product Number PSR18649
Brand PureSynth research chemicals
CAS No. 65-85-0

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company PureSynth Research Chemicals GmbH
64683 Einhausen Marie-Curie-StraBe. 3, Germany

1.4 Emergency telephone number

Worldwide Helpline No.: 1800-8908-260

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Specific target organ toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

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

Precautionary statement(s)

P260	Do not breathe dust.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face 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.
P314	Get medical advice/ attention if you feel unwell.
Supplemental Hazard Statements	none

2.3 Other hazards:

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
Benzoic acid	C ₇ H ₆ O ₂	65-85-0
Component	Classification	Concentration
Benzoic acid	-	>= 90 - <= 100

SECTION 4: First aid measures

Description of first aid measures

General advice	Show this 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. Consult a physician.
In case of eye contact	After eye contact: rinse out with plenty of water. 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 ₂) Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Carbon oxides

Advice for fire-fighters

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.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**Environmental precautions
Methods and materials for containment and cleaning up**

Do not let product enter drains.
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

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

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

Storage class (TRGS 510) : 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

Specific end use(s)

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

SECTION 8: Exposure controls / Personal protection

Control parameters

Ingredients with workplace control parameters

Exposure controls

Appropriate engineering controls

No data available

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

Hand protection

Material : Nitrile rubber

Break through time : 480 min

Glove thickness : 0.11 mm

Protective index : Full contact

Material : Nitrile rubber

Break through time : 480 min

Glove thickness : 0.11 mm

Protective index : Splash contact

Skin and Body Protection
Respiratory protection

Remarks : 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 EN 16523-1 please contact the supplier of CE-approved gloves protective clothing 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.

SECTION 9: Physical and chemical properties

Appearance	Form: Powder or Crystals Colour: White
Odour	No data available
pH - Value	2.8 (25 °C)
Density	1.26 g/cm ³ (15 °C)
Boiling Point	249 °C Method: lit.
Melting Point	121 - 125 °C Method: lit.
Solubility in water	No data available
Flash point	Not applicable
Vapour pressure	No data available
Auto -ignition temperature	570 °C
Vapour density	No data available
Flammability (solid, gas)	Method: Flammability (solids) GLP: yes Remarks: The product is not flammable.
Evaporation rate	No data available
Partition coefficient: n- octanol / water	log Pow: 1.88 Bioaccumulation is not expected.
Viscosity	No data available
Explosive properties	Not classified as explosive.
Upper / lower flammability or explosive limits	No data available
Oxidizing properties	none

Other safety information: No data available

Surface tension 67.5 mN/m, 1 g/l, 20 °C, OECD Test Guideline 115, GLP: yes

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
Condition to avoid	no information available
Incompatible materials	Strong oxidizing agents Strong bases Strong reducing agents
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	LD50 Oral - Mouse - male and female – 2250 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 - dust/mist
Skin corrosion/irritation	Remarks: (ECHA) Symptoms: Cough, Possible damages:, mucosal irritations LD50 Dermal - Rabbit - male and female - > 2000 mg/kg Remarks: (ECHA) Skin - Guinea pig Result: Skin irritation - 3 h Remarks: (ECHA)
Serious eye damage/eye irritation	Remarks: (Regulation (EC) No 1272/2008, Annex VI) Eyes - Rabbit Result: Corrosive - 21 Days (Directive 67/548/EEC, Annex V, B.5.) Remarks: (Regulation (EC) No 1272/2008, Annex VI)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: negative 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

Additional Information

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - inhalation (dust/mist/fume) - 28 Days Repeated dose toxicity - Rabbit - male and female - Dermal - 21 Days - No observed adverse effect level - > 2500 mg/kg

RTECS: DG0875000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information.

Toxicity

Toxicity to fish

LC50 (*Lepomis macrochirus*): 44.6 mg/l

End point: mortality

Exposure time: 96 h

Test Type: static test

Method: US-EPA

Toxicity to daphnia and other aquatic invertebrates

LC50 (*Daphnia magna* (Water flea)): > 100 mg/l

End point: mortality

Exposure time: 48 h

Test Type: static test

Method: US-EPA

Toxicity to algae

ErC50 (*Pseudokirchneriella subcapitata*): > 33.1 mg/l

Exposure time: 72 h

Test Type: static test

Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

Toxicity to Microorganism

IC50 (activated sludge): > 1000 mg/l

Exposure time: 3 h

Test Type: static test

Method: OECD Test Guideline 209

EC50 (*Photobacterium phosphoreum*): 17 mg/l

Exposure time: 30 min

Test Type: microtox test

Remarks: (Lit.)

Toxicity to fish(Chronic toxicity)

EC50: > 120 mg/l

Exposure time: 28 d

Species: *Oncorhynchus mykiss* (rainbow trout)

Test Type: semi-static test

Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

EC50: > 25 mg/l

Exposure time: 21 d

Species: *Daphnia magna* (Water flea)

Test Type: semi-static test

	Method: OECD Test Guideline 211
Persistence and degradability	Test Type: anaerobic Inoculum: activated sludge Result: Biodegradable Biodegradation: 89.5% Exposure time: 35 d
Bioaccumulation	Method: OECD Test Guideline 311 Partition coefficient: n-octanol/water: log Pow: 1.88 Remarks: Bioaccumulation is not expected.
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.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

SECTION 13: Disposal considerations

Waste treatment methods	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging	No data available.

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	-	Not dangerous goods	-	-	no
IMDG	-	Not dangerous goods	-	-	no
IATA	-	Not dangerous goods	-	-	no

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered: Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.