

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 10-Mar-2025

Revision date 24-Nov-2025

Revision Number 6

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

1.1. Product identifier

Product Code(s)	50351
Safety data sheet number	50351
Product Name	BENZOIC ACID
UK REACH registration number	UK-01-3237356626-7-XXXX
Index No	607-705-00-8
EC Number	200-618-2
CAS No	65-85-0
Synonyms	PUROX B, BENZOIC ACID (PUROX B), BENZOIC ACID (PUROX B) FLK FG/PH
Pure substance/mixture	Substance
Contains BENZOIC ACID	

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

Recommended use	Pharmaceuticals Cosmetics paint Chemical Polymers Cleaning agent Laboratory chemicals Food/Feed additive Food Grade Additive For further information, see attached Exposure Scenario
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1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address	SDS.EMEA@univarsolutions.com
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Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
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1.4. Emergency telephone number

Emergency Telephone

SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity — repeated exposure	Category 1 - (H372)

2.2. Label elements

Contains BENZOIC ACID

**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H372 - Causes damage to organs through prolonged or repeated exposure

H372 - Causes damage to the following organs through prolonged or repeated exposure if inhaled: Lungs [inhalation]

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves and eye/face protection

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 or doctor

P321 - Specific treatment (see .? on this label)

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

Dust can form an explosive mixture with air.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
BENZOIC ACID 65-85-0	>= 90 - <= 100 %	200-618-2 (607-705-00-8)	UK-01-3237356626-7-XXXX	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT RE 1 (H372)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Remove victim out of the danger area. If symptoms persist, call a doctor. Show this safety data sheet to the doctor in attendance. Keep victim under observation.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. If breathing is irregular or stopped, administer artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.
Ingestion	Rinse mouth thoroughly with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not enter the lungs. Place unconscious person on the side in the recovery position and ensure breathing can take place. Keep respiratory tract clear. Loosen tight clothing such as a collar, tie, belt or waistband.
Self-protection of the first aider	No action shall be taken involving any personal risk or without suitable training.

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

Inhalation	Causes damage to organs through prolonged or repeated exposure if inhaled.
Eyes	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.
Dermal	Causes skin irritation.

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

Note to doctors	Treat with a corticosteroid metered dose aerosol depending on the amount inhaled to prevent pulmonary oedema.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Water spray. Dry chemical. Foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams. Carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases. Dust can form an explosive mixture with air. Do not allow run-off from fire-fighting to enter drains or water courses.
Hazardous combustion products	Carbon oxides. Benzene. Phenols.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid generation of dust. Remove all sources of ignition. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. In case of inadequate ventilation wear respiratory protection.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Move containers from fire area if you can do it without risk. Stop leak if possible without any risk. Use spark-proof tools and explosion-proof equipment. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Pick up and transfer to properly labelled containers. Do not allow run-off from fire-fighting to enter drains or water courses.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling**Advice on safe handling**

Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Do not breathe dust. Avoid generation of dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). In case of inadequate ventilation wear respiratory protection. Keep container closed when not in use. Electrical equipment should be protected to the appropriate standard. Take precautionary measures against static discharges. Empty containers retain product residue and can be hazardous. Do not re-use container. Remove contaminated clothing and protective equipment before entering eating areas. Do not eat, drink or smoke when using this product.

General hygiene considerations

Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Take off contaminated clothing and wash it before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Protect from direct sunlight. See section 10 for more information. Keep away from food, drink and animal feedingstuffs. Keep away from open flames, hot surfaces and sources of ignition. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not re-use container.

7.3. Specific end use(s)**Specific use(s)**

See section 1 for more information.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
BENZOIC ACID 65-85-0		62.5 mg/kg bw/day [4] [6]	3 mg/m ³ [4] [6] 0.1 mg/m ³ [5] [6]

[4]

Systemic health effects.

[5]

Local health effects.

[6]

Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
BENZOIC ACID 65-85-0	16.6 mg/kg bw/day [4] [6]	31.25 mg/kg bw/day [4] [6]	1.5 mg/m ³ [4] [6] 0.06 mg/m ³ [5] [6]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
BENZOIC ACID 65-85-0	0.34 mg/L	0.331 mg/L	0.034 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
BENZOIC ACID 65-85-0	1.75 mg/kg dry weight	0.175 mg/kg dry weight	100 mg/L	0.151 mg/kg dry weight	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective butyl rubber gloves	>= 0.5 mm	>= 480 minutes
	Wear protective nitrile rubber gloves	>= 0.35 mm	>= 480 minutes
	Polyvinyl chloride (PVC)	>= 0.5 mm	>= 480 minutes
	Wear protective Viton™ gloves	>= 0.5 mm	>= 480 minutes
	Fluorinated rubber	>= 0.4 mm	>= 480 minutes

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection Use appropriate respiratory protection.
Recommended filter type: Wear dust masks in dusty areas. Dust filter P2 (for fine dust).

General hygiene considerations Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Take off contaminated clothing and wash it before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	solid Flakes
Colour	White/off-white
Odour	Characteristic.
Odour threshold	No information available

Property	Values	Remarks • Method
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Melting point / freezing point	122 °C	
Initial boiling point and boiling range	249 °C	
Flammability		The product is not flammable. Dust may form explosive mixture with air. No information available.
Flammability Limit in Air		
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		Not applicable.
Autoignition temperature	617 - 620 °C	No information available.
Decomposition temperature		No information available.
pH	2.8	@ 25 °C. Solution.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	3.5 g/l @ 25 °C	
Solubility(ies)	Soluble in the following materials; Alcohols., Ether., Benzene., Chloroform	No information available.
Partition coefficient	log Pow: 1.88	
Vapour pressure	0.0011 hPa @ 20°C	@ 20 °C.
Relative density	1.32 @ 20°C	@ 20 °C.
Bulk density	1.32 g/cm3	@ 20 °C
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		
Particle Size	> 500 µm	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Contact with metals may evolve flammable hydrogen gas.

Hazardous polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Ignition sources. Avoid static discharge. dust formation.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Reducing agents. Metals.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Benzene. Phenols.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	Causes damage to organs through prolonged or repeated exposure if inhaled.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.
Skin contact	Causes skin irritation.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms****Acute toxicity****Numerical measures of toxicity****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
BENZOIC ACID	= 2565 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 12.2 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation. Causes skin irritation.

BENZOIC ACID (65-85-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Guinea pig				Causes skin irritation

Serious eye damage/eye irritation Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.

BENZOIC ACID (65-85-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
(EC) No. 440/2008, Annex, B.5	Rabbit	eye		21 days	Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns Irreversible damage

Respiratory or skin sensitisation Based on available data the classification criteria are not met.

BENZOIC ACID (65-85-0)

Method	Species	Exposure route	Results
Local lymph node assay (LLNA)	Mouse	Dermal	Did not cause sensitisation on laboratory animals
Buehler Test EPA OPP 81-6	Guinea pig	Dermal	Did not cause sensitisation on laboratory animals

Germ cell mutagenicity Based on available data the classification criteria are not met.

Component Information
BENZOIC ACID (65-85-0)

Method	Species	Results
OECD Test No. 471: Bacterial Reverse Mutation Test Ames Test	in vitro S. typhimurium	Negative
Chromosome aberration test	in vitro Chinese hamster fibroblasts	Negative
OECD 487: In Vitro Mammalian Cell Micronucleus Test	in vitro Mouse lymphoma cells	Negative
OECD Test No. 475: Mammalian Bone Marrow Chromosome Aberration Test	in vivo Mouse	Negative
OECD Test No. 478: Rodent Dominant Lethal Test	in vivo Rat	Negative

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

Component Information
BENZOIC ACID (65-85-0)

Method	Species	Results
	Rat	Negative

Reproductive toxicity Based on available data the classification criteria are not met.

BENZOIC ACID (65-85-0)

Method	Species	Results
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OECD Test No. 416: Two-Generation Reproduction Toxicity	Rat	No effects on fertility and early embryonic development were detected
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	Not classified

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 if inhaled. Causes damage to organs through prolonged or repeated exposure.

H372 - Causes damage to the following organs through prolonged or repeated exposure if inhaled: Lungs [inhalation].

Component Information
BENZOIC ACID (65-85-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 412: Sub-acute Inhalation Toxicity: 28-Day Study	Rat	Inhalation	25 - 250 - 1200 mg/m ³	4 weeks	
OECD Test No. 410: Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	Dermal	100 - 500 - 2500 mg/kg bw/d	3 weeks	

Aspiration hazard

Based on available data the classification criteria are not met.

Other adverse effects

No information available.

SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

BENZOIC ACID (65-85-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Lepomis macrochirus	LC50	44.6 mg/L	96 hours	
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	47.3 mg/L	96 hours	
EPA-660/3-75-009	Daphnia magna	EC50	> 100 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Raphidocelis subcapitata	EC50	> 33.1 mg/L	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Raphidocelis subcapitata	EC10	3.4 mg/L	72 hours	
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	activated sludge	IC50	> 1000 mg/L	3 hours	
OECD Test No. 215: Fish, Juvenile Growth Test	Oncorhynchus mykiss (rainbow trout)	NOEC	> 120 mg/L	28 days	

OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	>= 25 mg/L	21 days	
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12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

BENZOIC ACID (65-85-0)

Method	Exposure time	Value	Results
OECD 311	21 - 35 days	Biodegradation >= 89 %	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
BENZOIC ACID	1.88

12.4. Mobility in soil

Mobility in soil Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
BENZOIC ACID	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

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

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
BENZOIC ACID - 65-85-0	Product-type 3: Veterinary hygiene Product-type 4: Food and feed area

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment**Chemical Safety Report**

A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H315 - Causes skin irritation

H318 - Causes serious eye damage

H372 - Causes damage to organs through prolonged or repeated exposure

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note **SDS sections updated 3 4 7 8 9 16****Classification procedure**

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method

Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By Lisa Bland

Supersedes date 10-Mar-2025

Revision date 24-Nov-2025

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Formulation & (re)packing of substances and mixtures
 Cosmetics, personal care products
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC2 - Formulation of preparations (mixtures) Municipal STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
 PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
 PROC15 - Use as laboratory reagent
Product category(ies) PC39 - Cosmetics, personal care products
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)
 - Municipal STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	1100
Units	t(ons)/year

ES00793 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

Type	Daily amount per site
Value	5000
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	200
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	87.2%

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).

ES00793 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Municipal Sewage Treatment Plant; Aerobic biological treatment]

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Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).

ES00793 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid

Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- Municipal STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.32 mg/l	0.941
Freshwater sediment	1.65 mg/kg d.w.	0.941
Marine water	0.0322 mg/l	0.947

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into mixture, Cosmetics, personal care products,
Industrial (ERC2; PROC1; PROC2; PROC3; PROC5;
PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39)
[Formulation into mixture; Municipal Sewage
Treatment Plant; Aerobic biological treatment]

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Marine sediment	0.166 mg/kg d.w.	0.947
Soil	0.0246 mg/kg d.w.	0.163
Municipal STP	3.16 mg/l	0.032

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or	Worker - inhalative, long-term	0.1 mg/m ³	0.033

preparation into small containers (dedicated filling line, including weighing)	- systemic		
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Formulation & (re)packing of substances and mixtures
 Cosmetics, personal care products
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC2 - Formulation of preparations (mixtures) Onsite STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
 PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
 PROC15 - Use as laboratory reagent
Product category(ies) PC39 - Cosmetics, personal care products
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)
 - Onsite STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	7500
Units	t(ons)/year

ES00794 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

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Type	Daily amount per site
Value	34100
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	220
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Onsite STP
Assumed on-site sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	98%
Sludge treatment	Can be landfilled or incinerated, when in compliance with local regulations

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%

ES00794 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

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Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
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ES00794 - BENZOIC ACID (200-618-2) - Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

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Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- Onsite STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method	Used EUSES model	
Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.322 mg/l	0.946
Freshwater sediment	1.66 mg/kg d.w.	0.946
Marine water	0.0324 mg/l	0.952
Marine sediment	0.167 mg/kg d.w.	0.952
Soil	0.0136 mg/kg d.w.	0.091
Onsite STP	3.17 mg/l	0.032

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033

dedicated facilities			
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures Cosmetics, personal care products
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures) Msafe Freshwater < 0.01 mg/l
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Product category(ies)	PC39 - Cosmetics, personal care products
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- Msafe
- Freshwater
- < 0.01 mg/l

Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
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ES00795 - BENZOIC ACID (200-618-2) -Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Control of worker exposure	
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

ES00795 - BENZOIC ACID (200-618-2) -Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Indoor/Outdoor use	Indoor
Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin

ES00795 - BENZOIC ACID (200-618-2) -Formulation into mixture, Cosmetics, personal care products, Industrial (ERC2; PROC1; PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9; PROC14; PROC15; PC39) [Formulation into mixture; Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

	problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately.

ES00795 - BENZOIC ACID (200-618-2) -Formulation
into mixture, Cosmetics, personal care products,
Industrial (ERC2; PROC1;
PROC2; PROC3; PROC5; PROC8a; PROC8b; PROC9;
PROC14; PROC15; PC39) [Formulation into mixture;
Maximum for safe use.; emission to receiving
waters; < 0.01 mg/L]

Revision date 24-Nov-2025

	Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- Msafe
- Freshwater
- < 0.01 mg/l

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.01 mg/l	0.029

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process	Worker - dermal, long-term -	0.343 mg/kg bw/d	0.005

(synthesis or formulation)	systemic		
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures) ERC3 - Formulation in materials Municipal STP Aerobic biological treatment
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC6 - Calendaring operations PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)
 - ERC3 - Formulation in materials
 - Municipal STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
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Value	750
Units	t(ons)/year

Type	Daily amount per site
Value	2500
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	87.2%

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
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ES00796 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Formulation into solid matrix; Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
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ES00796 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Formulation into solid matrix; Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC6 - Calendaring operations
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to
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ES00796 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Formulation into solid matrix; Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

	vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- ERC3 - Formulation in materials

- Municipal STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method

Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.32 mg/l	0.941
Freshwater sediment	1.65 mg/kg d.w.	0.941
Marine water	0.0322 mg/l	0.947
Marine sediment	0.166 mg/kg d.w.	0.947
Soil	0.0248 mg/kg d.w.	0.165
Municipal STP	3.16 mg/l	0.032

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC6 - Calendaring operations	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC6 - Calendaring operations	Worker - dermal, long-term - systemic	27.4 mg/kg bw/d	0.434
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or preparation into small containers	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033

(dedicated filling line, including weighing)			
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures) ERC3 - Formulation in materials Onsite STP Aerobic biological treatment
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC6 - Calendaring operations PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, peletting PROC15 - Use as laboratory reagent
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)
 - ERC3 - Formulation in materials
 - Onsite STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
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ES00797 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

Value	5000
Units	t(ons)/year

Type	Daily amount per site
Value	16700
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Onsite STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	98%
Sludge treatment	Can be landfilled or incinerated, when in compliance with local regulations

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles
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	(multi-stage and/or significant contact)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC6 - Calendaring operations
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

Indoor/Outdoor use	Indoor
Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- ERC3 - Formulation in materials

- Onsite STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.315 mg/l	0.925
Freshwater sediment	1.62 mg/kg d.w.	0.925
Marine water	0.0317 mg/l	0.931
Marine sediment	0.163 mg/kg d.w.	0.931
Soil	0.0149 mg/kg d.w.	0.099
Onsite STP	3.1 mg/l	0.031

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d

Consumer - inhalative, long-term - systemic

1.5 mg/m³

Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC6 - Calendaring operations	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC6 - Calendaring operations	Worker - dermal, long-term - systemic	27.4 mg/kg bw/d	0.434
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or	Worker - inhalative, long-term	0.1 mg/m ³	0.033

preparation into small containers (dedicated filling line, including weighing)	- systemic		
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Formulation & (re)packing of substances and mixtures
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC2 - Formulation of preparations (mixtures) ERC3 - Formulation in materials Msafe Freshwater < 0.01 mg/l
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC6 - Calendaring operations PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)
 - ERC3 - Formulation in materials
 - Msafe
 - Freshwater
 - < 0.01 mg/l

Conditions and measures related to external treatment of waste for disposal

ES00798 - BENZOIC ACID (200-618-2) - Formulation
into mixture, Various products, Industrial (ERC2;
ERC3; PROC1; PROC2; PROC3; PROC4; PROC5;
PROC6; PROC8a; PROC8b; PROC9; PROC14;
PROC15) [Formulation; Maximum for safe use.;
emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
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Control of worker exposure	
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.

ES00798 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC6 - Calendaring operations
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

ES00798 - BENZOIC ACID (200-618-2) - Formulation into mixture, Various products, Industrial (ERC2; ERC3; PROC1; PROC2; PROC3; PROC4; PROC5; PROC6; PROC8a; PROC8b; PROC9; PROC14; PROC15) [Formulation; Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

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Indoor/Outdoor use	Indoor
Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Covers concentrations up to	1%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.

ES00798 - BENZOIC ACID (200-618-2) - Formulation
into mixture, Various products, Industrial (ERC2;
ERC3; PROC1; PROC2; PROC3; PROC4; PROC5;
PROC6; PROC8a; PROC8b; PROC9; PROC14;
PROC15) [Formulation; Maximum for safe use.;
emission to receiving waters; < 0.01 mg/L]

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Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor
Process category(ies)	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor
Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC2 - Formulation of preparations (mixtures)

- ERC3 - Formulation in materials

- Msafe

- Freshwater

- < 0.01 mg/l

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.

ES00798 - BENZOIC ACID (200-618-2) - Formulation
into mixture, Various products, Industrial (ERC2;
ERC3; PROC1; PROC2; PROC3; PROC4; PROC5;
PROC6; PROC8a; PROC8b; PROC9; PROC14;
PROC15) [Formulation; Maximum for safe use.;
emission to receiving waters; < 0.01 mg/L]

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Soil 0.151 mg/kg d.w.
Impact on Sewage Treatment 100 mg/l
Intermittent release 0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.01 mg/l	0.029

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic 62.5 mg/kg bw/d
Worker - inhalative, long-term - local 0.1 mg/m³
Worker - inhalative, long-term - systemic 3 mg/m³
Consumer - oral, long-term - systemic 16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic 31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic 1.5 mg/m³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC6 - Calendaring operations	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC6 - Calendaring operations	Worker - dermal, long-term - systemic	27.4 mg/kg bw/d	0.434
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167

dedicated facilities			
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising	Worker - dermal, long-term - systemic	3.43 mg/kg bw/d	0.055
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Use as an intermediate
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
 Municipal STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC15 - Use as laboratory reagent
Product category(ies) PC19 - Intermediate
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
 - Municipal STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	750
Units	t(ons)/year
Type	Daily amount per site
Value	2500
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	87.2%

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear

ES00799 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19) [Use of intermediate; Municipal Sewage Treatment Plant; Aerobic biological treatment]

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/limit releases, dispersion and exposure	gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

Indoor/Outdoor use	Indoor
Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
- Municipal STP
- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.32 mg/l	0.941
Freshwater sediment	1.65 mg/kg d.w.	0.941
Marine water	0.0322 mg/l	0.947
Marine sediment	0.166 mg/kg d.w.	0.947
Soil	0.025 mg/kg d.w.	0.166
Municipal STP	3.16 mg/l	0.032

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11

PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Use as an intermediate
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
 Onsite STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC15 - Use as laboratory reagent
Product category(ies) PC19 - Intermediate
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
 - Onsite STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	5000
Units	t(ons)/year
Type	Daily amount per site
Value	16700
Units	kg/d

ES00800 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19) [Use of intermediate; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

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Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Onsite STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	98%
Sludge treatment	Can be landfilled or incinerated, when in compliance with local regulations

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment

ES00800 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19) [Use of intermediate; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

health evaluation	
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately.

	Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

- Onsite STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.

ES00800 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19) [Use of intermediate; Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

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Impact on Sewage Treatment 100 mg/l
Intermittent release 0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.315 mg/l	0.925
Freshwater sediment	1.62 mg/kg d.w.	0.925
Marine water	0.0317 mg/l	0.931
Marine sediment	0.163 mg/kg d.w.	0.931
Soil	0.0162 mg/kg d.w.	0.108
Onsite STP	3.1 mg/l	0.031

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033

dedicated facilities			
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Use as an intermediate
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) Msafe Freshwater < 0.01 mg/l
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC15 - Use as laboratory reagent
Product category(ies)	PC19 - Intermediate
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

- Msafe
- Freshwater
- < 0.01 mg/l

Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
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Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
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ES00801 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19)
[Use of intermediate; Maximum for safe use.; emission to receiving waters; <0.01mg/L]

Revision date 24-Nov-2025

Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

ES00801 - BENZOIC ACID (200-618-2) - Use of intermediate, Industrial (ERC6a; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC19)
[Use of intermediate; Maximum for safe use.; emission to receiving waters; <0.01mg/L]

Revision date 24-Nov-2025

personal protection, hygiene and health evaluation	See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Physical form of product	Liquid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately.

	Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

- Msafe

- Freshwater

- < 0.01 mg/l

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.01 mg/l	0.029

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Polymer preparations and compounds
 Plastic articles
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
 Municipal STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC15 - Use as laboratory reagent
Product category(ies) PC32 - Polymer preparations and compounds
Article categories AC13 - Plastic articles
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
 - Municipal STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	34000
Units	t(ons)/year
Type	Daily amount per site

ES00802 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Municipal Sewage Treatment Plant; Aerobic biological treatment]

Revision date 24-Nov-2025

Value	113300
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	87.2%

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to	Clear spills immediately

ES00802 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Municipal Sewage Treatment Plant; Aerobic biological treatment]

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control dispersion from source towards the worker	
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to	Clear spills immediately

control dispersion from source towards the worker	
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
- Municipal STP
- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.0397 mg/l	0.117
Freshwater sediment	0.204 mg/kg d.w.	0.117
Marine water	0.00417 mg/l	0.123
Marine sediment	0.0215 mg/kg d.w.	0.123
Soil	0.138 mg/kg d.w.	0.917
Municipal STP	0.358 mg/l	0.032

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other	Worker - dermal, long-term -	6.86 mg/kg bw/d	0.11

process (synthesis) where opportunity for exposure arises	systemic		
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Polymer preparations and compounds
 Plastic articles
Type Worker
Main user group Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies) ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers Onsite STP Aerobic biological treatment
Process category(ies) PROC1 - Use in closed process, no likelihood of exposure
 PROC2 - Use in closed, continuous process with occasional controlled exposure
 PROC3 - Use in closed batch process (synthesis or formulation)
 PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC15 - Use as laboratory reagent
Product category(ies) PC32 - Polymer preparations and compounds
Article categories AC13 - Plastic articles
Product Name BENZOIC ACID
Sector(s) of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
 - Onsite STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	35000
Units	t(ons)/year
Type	Daily amount per site

ES00803 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

Value	16700
Units	kg/d

Other operational conditions of use affecting environmental exposure

Emission days	300
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Onsite STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	98%
Sludge treatment	Can be landfilled or incinerated, when in compliance with local regulations

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100
Type	Assumes process temperature up to
Value	50 C

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
Waste treatment methods	Aerobic biological treatment

Control of worker exposure

Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor
Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%

ES00803 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to
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ES00803 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

	vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

ES00803 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

Indoor/Outdoor use	Indoor
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Section 3 - Exposure estimation

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

- Onsite STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.01 mg/l	0.030
Freshwater sediment	0.0516 mg/kg d.w.	0.030
Marine water	0.00121 mg/l	0.036
Marine sediment	0.00621 mg/kg d.w.	0.036
Soil	0.141 mg/kg d.w.	0.937
Onsite STP	0.0543 mg/l	0.001

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022

ES00803 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Onsite Sewage Treatment Plant; Aerobic biological treatment; tertiary ozone treatment]

Revision date 24-Nov-2025

exposure			
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name	BENZOIC ACID
Chemical name	Benzoic acid
Pure substance/mixture	Substance
REACH registration number	01-2119455536-33-XXXX
CAS No	65-85-0
EC No (EU Index No)	200-618-2
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford GBR
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306
E-mail address	SDS.EMEA@univarsolutions.com

Section 1 - Title

Title	Polymer preparations and compounds Plastic articles
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release category(ies)	ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers Msafe Freshwater < 0.01 mg/l
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC15 - Use as laboratory reagent
Product category(ies)	PC32 - Polymer preparations and compounds
Article categories	AC13 - Plastic articles
Product Name	BENZOIC ACID
Sector(s) of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

- Msafe
- Freshwater
- < 0.01 mg/l

Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
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ES00804 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Control of worker exposure	
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC2 - Use in closed, continuous process with occasional controlled exposure
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Process category(ies)	PROC3 - Use in closed batch process (synthesis or formulation)
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2

ES00804 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

Indoor/Outdoor use	Indoor
Process category(ies)	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
Covers concentrations up to	1%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm ²
Indoor/Outdoor use	Indoor
Process category(ies)	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately.

ES00804 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

	Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor
Process category(ies)	PROC15 - Use as laboratory reagent
Covers concentrations up to	100%
Physical form of product	Solid
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).
Technical conditions and measures to control dispersion from source towards the worker	Clear spills immediately
Conditions and measures related to personal protection, hygiene and health evaluation	S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection See Section 8 for information on appropriate personal protective equipment
Organisational measures to prevent /limit releases, dispersion and exposure	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop and Wear suitable respiratory protection.
Covers skin contact area up to	130 - 150 cm2
Indoor/Outdoor use	Indoor

Section 3 - Exposure estimation

Environmental release category(ies) - ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

- Msafe

- Freshwater

- < 0.01 mg/l

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.01 mg/l	0.029

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³

ES00804 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

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Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Calculation method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Process category(ies)	Exposure route	predicted exposure level	Risk characterisation ratio (RCR)
PROC1 - Use in closed process, no likelihood of exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC1 - Use in closed process, no likelihood of exposure	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - inhalative, long-term - systemic	0.01 mg/m ³	0.003
PROC2 - Use in closed, continuous process with occasional controlled exposure	Worker - dermal, long-term - systemic	1.37 mg/kg bw/d	0.022
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC3 - Use in closed batch process (synthesis or formulation)	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - inhalative, long-term - systemic	0.5 mg/m ³	0.167
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities	Worker - dermal, long-term - systemic	13.7 mg/kg bw/d	0.219
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	Worker - dermal, long-term - systemic	6.86 mg/kg bw/d	0.11
PROC15 - Use as laboratory reagent	Worker - inhalative, long-term - systemic	0.1 mg/m ³	0.033
PROC15 - Use as laboratory reagent	Worker - dermal, long-term - systemic	0.343 mg/kg bw/d	0.005

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is

ES00804 - BENZOIC ACID (200-618-2) - Use as an auxiliary for polymerization (ERC6d; PROC1; PROC2; PROC3; PROC4; PROC8a; PROC8b; PROC15; PC32; AC13) [Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article); Maximum for safe use.; emission to receiving waters; < 0.01 mg/L]

Revision date 24-Nov-2025

required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

Product Name BENZOIC ACID
Chemical name Benzoic acid
Pure substance/mixture Substance
REACH registration number 01-2119455536-33-XXXX
CAS No 65-85-0
EC No (EU Index No) 200-618-2
Supplier Univar Solutions UK Ltd
 Aquarius House
 6 Mid Point Business Park
 Bradford
 GBR

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

E-mail address SDS.EMEA@univarsolutions.com

Section 1 - Title

Title Cosmetics, personal care products
Type Consumer
Main user group Consumer uses: Private households (= general public = consumers)
Environmental release category(ies) ERC8a - Wide dispersive indoor use of processing aids in open systems Municipal STP
 Aerobic biological treatment
Product category(ies) PC39 - Cosmetics, personal care products
Product Name BENZOIC ACID
Sector(s) of use SU21 - Consumer uses

Section 2 - Operational conditions and risk management measures

Section 2.1 - Control of environmental exposure

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems
 - Municipal STP
 - Aerobic biological treatment

Amounts used

Type	Annual amount per site
Value	530
Units	t(ons)/year

Type	Daily amount per site
Value	1500
Units	kg/d

Type	Annual amount used in the EU
Value	10000
Units	t(ons)/year

Other operational conditions of use affecting environmental exposure

Emission days	365
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Operational conditions

Remarks	Receiving surface water flow is 18000 m3/d
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Conditions and measures related to municipal sewage treatment plant

Type	Municipal STP
Assumed domestic sewage treatment plant flow	2000 m3/d
Removal efficiency (total)	87.2%

Environmental factors not influenced by risk management

Local freshwater dilution factor	10
Local marine water dilution factor	100

Risk management measures

Additional good practice advice beyond the REACH Chemical Safety Report	Ensure all waste water is collected and treated via a WWTP alternatively INCINERATE.
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Conditions and measures related to external treatment of waste for disposal

Disposal	Dispose of waste product or used containers according to local regulations See section 13 for more information
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Control of consumer exposure

Product categories [PC]	PC39 - Cosmetics, personal care products
Covers concentrations up to	1%
Physical form of product	Liquid
Amounts used	0.0109 kg/d
Use frequency	Covers daily exposures up to 8 hours (unless stated differently).

Section 3 - Exposure estimation

Environmental release category(ies) - ERC8a - Wide dispersive indoor use of processing aids in open systems

- Municipal STP

- Aerobic biological treatment

Predicted No Effect Concentration (PNEC)

Freshwater	0.34 mg/l
Freshwater sediment	1.75 mg/kg d.w.
Marine water	0.034 mg/l
Marine sediment	0.175 mg/kg d.w.
Soil	0.151 mg/kg d.w.
Impact on Sewage Treatment	100 mg/l
Intermittent release	0.331 mg/l

Calculation method

Used EUSES model

Environment	predicted exposure level	Risk characterisation ratio (RCR)
Freshwater	0.00892 mg/l	0.026
Freshwater sediment	0.046 mg/kg d.w.	0.026
Marine water	0.000889 mg/l	0.026
Marine sediment	0.00458 mg/kg d.w.	0.026
Soil	0.000868 mg/kg d.w.	0.006
Municipal STP	0.0688 mg/l	0.001

ES00805 - BENZOIC ACID (200-618-2) - Cosmetics,
personal care products, Consumer (ERC8a; PC39)
[[Widespread use of non-reactive processing aid (no
inclusion into or onto article, indoor); Municipal
Sewage Treatment Plant; Aerobic biological
treatment]

Revision date 24-Nov-2025

Derived No Effect Level (DNEL):

Worker - dermal, long-term - systemic	62.5 mg/kg bw/d
Worker - inhalative, long-term - local	0.1 mg/m ³
Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	16.6 mg/kg bw/d
Consumer - dermal, long-term - systemic	31.25 mg/kg bw/d
Consumer - inhalative, long-term - systemic	1.5 mg/m ³

Remarks

Qualitative approach used to conclude safe use

Section 4 - Guidance to check compliance with the exposure scenario

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.