SAFETY DATA SHEET
SODIUM BENZOATE SOLUTION

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

1.1. Product identifier

Product name SODIUM BENZOATE SOLUTION

Product number 11518

Synonyms; trade names SODIUM BENZOATE 35% SOLUTION

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

Identified uses Preservative Antioxidant Industrial application

1.3. Details of the supplier of the safety data sheet

Supplier

Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
sds@univar.com

1.4. Emergency telephone number

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

Sds No. 11518

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms

Signal word Warning

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313 Get medical advice/ attention.

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2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM BENZOATE		**30-60%**
CAS number: 532-32-1	EC number: 208-534-8	REACH registration number: 01-2119460683-35-XXXX

Classification
Eye Irrit. 2 - H319

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Eye contact Irritation of eyes and mucous membranes.

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

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Oxides of the following substances: Carbon. Sodium.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Flush contaminated area with plenty of water.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

SODIUM BENZOATE (CAS: 532-32-1)

Ingredient comments No exposure limits known for ingredient(s).

DNEL

Workers - Inhalation; Long term local effects: 0.1 mg/m³
Workers - Inhalation; Long term systemic effects: 3 mg/m³
Workers - Dermal; Long term systemic effects: 62.5 mg/kg/day
General population - Inhalation; Long term local effects: 0.06 mg/m³
General population - Inhalation; Long term systemic effects: 1.5 mg/m³
General population - Dermal; Long term systemic effects: 31.25 mg/kg/day
General population - Oral; Long term systemic effects: 16.6 mg/kg/day

PNEC

- Fresh water; 0.13 mg/l
- Sediment (Freshwater); 1.76 mg/kg
- marine water; 0.013 mg/l
- Sediment (Marinewater); 0.176 mg/kg
- Intermittent release; 0.305 mg/l
- Soil; 0.276 mg/kg
- STP; 10 mg/l

8.2. Exposure controls

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Protective equipment

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	Provide eyewash station.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Light (or pale). Yellow.
pH	pH (concentrated solution): 7-8
Initial boiling point and range	> 100°C
Relative density	1.14 @ 20°C
Solubility(ies)	Soluble in water.

9.2. Other information

Other information	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known.

10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids.

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10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Oxides of the following substances: Carbon. Sodium.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 12,000.0

Species Rat

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Inhalation May cause respiratory irritation.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

Skin contact Liquid may irritate skin.

Eye contact Irritating to eyes.

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative.
IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate.
BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
LOEC: Lowest Observed Effect Concentration.
DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50
hPa: Hectopascal
LL50: Lethal Loading fifty
OECD: Organisation for Economic Co-operation and Development
POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus
STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

14/05/2019

Version number

1.001

Supersedes date

27/05/2015

SDS number

11518

SODIUM BENZOATE SOLUTION

SDS status	Approved.
Hazard statements in full	H319 Causes serious eye irritation.
Signature	Jitendra Panchal

Exposure scenario

Manufacturing of the substance and industrial use as an auxiliary for polymerisation in a closed continuous process, with occasional exposure, including sampling

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Manufacturing of the substance and industrial use as an auxiliary for polymerisation in a closed continuous process, with occasional exposure, including sampling
Product category	PC32 Polymer preparations and compounds.
Sector of use	SU8 Manufacture of bulk, large-scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals

Environment

Environmental release category	ERC1 Manufacture of the substance ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

Worker

Process category	PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Manufacturing of the substance and industrial use as an auxiliary for polymerisation in a closed continuous process, with occasional exposure, including sampling

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts Palm of both hands. Covers skin contact area up to 480 cm².

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.0395
Worker - inhalation, long-term - systemic: Exposure 0.01 mg/m³, DNEL 10.4 mg/m³, RCR 0.0962
Worker - dermal, long-term - local: Exposure 0.2 mg/cm², DNEL 4.5 mg/cm², RCR 0.0444
Worker - inhalation, long-term - local: Exposure 0.01 mg/m³, DNEL 6.3 mg/m³, RCR 0.00159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario

Industrial use as an auxiliary in polymerisation processes in a closed continuous process, including storing and forwarding

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Industrial use as an auxiliary in polymerisation processes in a closed continuous process, including storing and forwarding
Product category	PC32 Polymer preparations and compounds.
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Industrial use as an auxiliary in polymerisation processes in a closed continuous process, including storing and forwarding

Human factors not influenced by risk management

Potentially exposed body parts	Palm of one hand. Covers skin contact area up to 240 cm².

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

	Use suitable eye protection.
Additional advice	Avoid splashing.
	Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure	Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.00988 Worker - inhalation, long-term - systemic: Exposure 0.01 mg/m³, DNEL 10.4 mg/m³, RCR 0.0962 Worker - dermal, long-term - local: Exposure 0.1 mg/cm², DNEL 4.5 mg/cm², RCR 0.0222 Worker - inhalation, long-term - local: Exposure 0.01 mg/m³, DNEL 6.3 mg/m³, RCR 0.00159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Charging/discharging at non-dedicated facilities in an industrial setting

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Charging/discharging at non-dedicated facilities in an industrial setting
Main sector	SU3 Industrial uses

Worker

Process category	PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts	Both hands. Covers skin contact area up to 960 cm².

Other given operational conditions affecting workers exposure

Setting	Indoor.

Charging/discharging at non-dedicated facilities in an industrial setting

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 13.7 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.395
Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m³, DNEL 10.4 mg/m³, RCR 0.0481
Worker - dermal, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222
Worker - inhalation, long-term - local: Exposure 0.5 mg/m³, DNEL 6.3 mg/m³, RCR 0.0794

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Charging/discharging at dedicated facilities in an industrial setting

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Charging/discharging at dedicated facilities in an industrial setting
Main sector	SU3 Industrial uses

Worker

Process category	PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts	Palm of both hands. Covers skin contact area up to 480 cm².

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes activities are at ambient temperature (unless stated differently).

Charging/discharging at dedicated facilities in an industrial setting

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.198
Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m³, DNEL 10.4 mg/m³, RCR 0.00962
Worker - dermal, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222
Worker - inhalation, long-term - local: Exposure 0.1 mg/m³, DNEL 6.3 mg/m³, RCR 0.0159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Transfer of substance into small containers in an industrial setting

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Transfer of substance into small containers in an industrial setting
Main sector	SU3 Industrial uses

Worker

Process category	PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts	Palm of both hands. Covers skin contact area up to 480 cm².

Other given operational conditions affecting workers exposure

Setting	Indoor.

Transfer of substance into small containers in an industrial setting

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.198
Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m³, DNEL 10.4 mg/m³, RCR 0.00962
Worker - dermal, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222
Worker - inhalation, long-term - local: Exposure 0.1 mg/m³, DNEL 6.3 mg/m³, RCR 0.0159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Industrial use in closed batch processes - formulation and auxiliary in polymerisation processes

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Industrial use in closed batch processes - formulation and auxiliary in polymerisation processes
Product category	PC4 Anti-freeze and de-icing products. PC5 Artists supply and hobby preparations. PC8 Biocidal products PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC29 Pharmaceuticals PC32 Polymer preparations and compounds. PC35 Washing and cleaning products PC39 Cosmetics, personal care.
Main sector	SU3 Industrial uses
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC2 Formulation into mixture ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

Worker

Process category	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

2. Conditions of use affecting exposure (Industrial - Environment 1)

Industrial use in closed batch processes - formulation and auxiliary in polymerisation processes

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state Solid, low dustiness

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts Palm of one hand. Covers skin contact area up to 240 cm².

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.00988
Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m³, DNEL 10.4 mg/m³, RCR 0.00962
Worker - dermal, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222
Worker - inhalation, long-term - local: Exposure 0.1 mg/m³, DNEL 6.3 mg/m³, RCR 0.0159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Formulation in batch processes with multistage and/or significant contact

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Formulation in batch processes with multistage and/or significant contact
Product category	PC4 Anti-freeze and de-icing products. PC5 Artists supply and hobby preparations. PC8 Biocidal products PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC29 Pharmaceuticals PC35 Washing and cleaning products PC39 Cosmetics, personal care.
Main sector	SU3 Industrial uses
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC2 Formulation into mixture

Worker

Process category	PROC5 Mixing or blending in batch processes

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Formulation in batch processes with multistage and/or significant contact

Product characteristics

Physical state Solid, low dustiness

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Potentially exposed body parts Palm of both hands. Covers skin contact area up to 480 cm².

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 13.7 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.395
Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m³, DNEL 10.4 mg/m³, RCR 0.0481
Worker - dermal, long-term - local: Exposure 2 mg/cm², DNEL 4.5 mg/cm², RCR 0.444
Worker - inhalation, long-term - local: Exposure 0.5 mg/m³, DNEL 6.3 mg/m³, RCR 0.0794

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario

Industrial use in batch and other processes where opportunity for exposure arises - auxiliary in polymerisation processes

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Industrial use in batch and other processes where opportunity for exposure arises - auxiliary in polymerisation processes
Product category	PC32 Polymer preparations and compounds.
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

Worker

Process category	PROC4 Chemical production where opportunity for exposure arises

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Industrial use in batch and other processes where opportunity for exposure arises - auxiliary in polymerisation processes

Human factors not influenced by risk management

Potentially exposed body parts Palm of both hands. Covers skin contact area up to 480 cm².

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

Use suitable eye protection.

Additional advice Avoid splashing.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.198
Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m³, DNEL 10.4 mg/m³, RCR 0.0481
Worker - dermal, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222
Worker - inhalation, long-term - local: Exposure 0.5 mg/m³, DNEL 6.3 mg/m³, RCR 0.0794

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.

Exposure scenario
Professional use of laboratory chemicals

Identification

Product name	Sodium Benzoate
REACH registration number	01-2119460683-35-XXXX
CAS number	532-32-1
EC number	208-534-8
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com

1. Title of exposure scenario

Main title	Professional use of laboratory chemicals
Product category	PC21 Laboratory chemicals.
Main sector	SU22 Professional uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Worker

Process category	PROC15 Use as laboratory reagent.

2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Not regarded as dangerous for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Human factors not influenced by risk management

Professional use of laboratory chemicals

Potentially exposed body parts	Palm of one hand. Covers skin contact area up to 240 cm².

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes activities are at ambient temperature (unless stated differently).

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	No specific risk management measure identified beyond those operational conditions stated.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Ensure operatives are trained to minimise exposures. Avoid contact with contaminated tools and objects.

Risk management measures

	Use suitable eye protection.
Additional advice	Avoid splashing.
	Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

3. Exposure estimation (Health 1)

Exposure	Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.00988 Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m³, DNEL 10.4 mg/m³, RCR 0.00962 Worker - dermal, long-term - local: Exposure 0.1 mg/cm², DNEL 4.5 mg/cm², RCR 0.0222 Worker - inhalation, long-term - local: Exposure 0.1 mg/m³, DNEL 6.3 mg/m³, RCR 0.0159

4. Guidance to check compliance with the exposure scenario (Health 1)

No additional risk management measures required.