



SAFETY DATA SHEET BALSAM OIL PERU

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

1.1. Product identifier

Product name BALSAM OIL PERU

Product number 55581

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

Identified uses Cosmetics

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. 55581

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

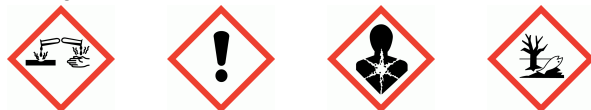
Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT RE 2 - H373

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

BALSAM OIL PERU

Precautionary statements

P261 Avoid breathing vapour/ spray.
 P273 Avoid release to the environment.
 P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/ container in accordance with national regulations.

Contains

BENZYL BENZOATE, BENZYL ALCOHOL, BENZYL CINNAMATE, BENZOIC ACID

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

BENZYL BENZOATE			30-60%
CAS number: 120-51-4	EC number: 204-402-9		
M factor (Acute) = 1			
Classification Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411			

BENZYL ALCOHOL			30-60%
CAS number: 100-51-6	EC number: 202-859-9	REACH registration number: 01-2119492630-38-XXXX	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Irrit. 2 - H319			

BENZYL CINNAMATE			5-10%
CAS number: 103-41-3	EC number: 203-109-3		
Classification Skin Sens. 1B - H317 Aquatic Chronic 2 - H411			

BENZOIC ACID			5-10%
CAS number: 65-85-0	EC number: 200-618-2	REACH registration number: 01-2119455536-33-XXXX	
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT RE 1 - H372			

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3,7,11-TRIMETHYLDODECA-1,6,10-TRIEN-3-OL,MIXED ISOMERS			1-5%
CAS number: 7212-44-4	EC number: 230-597-5	REACH registration number: 01-2119457636-29-XXXX	
M factor (Acute) = 1	M factor (Chronic) = 1		
Classification Eye Irrit. 2 - H319 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

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	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if symptoms are severe or persist.
Skin contact	Take off immediately all contaminated clothing. Wash skin thoroughly with soap and water. Continue to rinse. Get medical attention if symptoms are severe or persist.
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. Get medical attention if symptoms are severe or persist.

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

Ingestion	Harmful if swallowed.
Skin contact	May cause an allergic skin reaction. Symptoms following overexposure may include the following: Redness.
Eye contact	Causes serious eye damage. Symptoms following overexposure may include the following: Pain or irritation. Profuse watering of the eyes. Redness.

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

Notes for the doctor	Treat symptomatically. Contact specialist immediately poison treatment if large quantities have been ingested or inhaled
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
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

Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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5.3. Advice for firefighters

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Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. 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 inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Provide adequate ventilation.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

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. Avoid exposure to high temperatures or direct sunlight.

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

BENZYL ALCOHOL (CAS: 100-51-6)

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DNEL	Industry - Inhalation; Short term systemic effects: 110 mg/m ³
	Industry - Inhalation; Long term systemic effects: 22 mg/m ³
	Industry - Dermal; Short term systemic effects: 40 mg/kg/day
	Industry - Dermal; Long term systemic effects: 8 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 5.4 mg/m ³
	Consumer - Inhalation; Short term systemic effects: 27 mg/m ³
	Consumer - Dermal; Long term systemic effects: 4 mg/kg/day
	Consumer - Dermal; Short term systemic effects: 20 mg/kg/day
	Consumer - Oral; Long term systemic effects: 4 mg/kg/day
	Consumer - Oral; Short term systemic effects: 20 mg/kg/day

PNEC	- Fresh water; 1 mg/l
	- Marine water; 0.1 mg/l
	- Intermittent release; 2.3 mg/l
	- Soil; 0.456 mg/kg/day
	- Sediment (Freshwater); 5.27 mg/kg/day
	- Sediment (Marinewater); 0.527 mg/kg/day
	- STP; 39 mg/l

BENZOIC ACID (CAS: 65-85-0)

DNEL	Industry - Dermal; Long term systemic effects: 62.5 mg/kg/day
	Industry - Inhalation; Long term systemic effects: 3 mg/m ³
	Industry - Inhalation; Long term local effects: 0.1 mg/m ³
	Consumer - Oral; Long term systemic effects: 16.6 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 1.5 mg/m ³
	Consumer - Dermal; Long term systemic effects: 31.25 mg/kg/day
	Consumer - Inhalation; Long term local effects: 0.06 mg/m ³

PNEC	- Fresh water; 0.34 mg/l
	- Marine water; 0.034 mg/l
	- Intermittent release; 0.331 mg/l
	- Sediment (Freshwater); 1.75 mg/kg
	- Sediment (Marinewater); 0.175 mg/kg
	- STP; 100 mg/l
	- Soil; 0.151 mg/kg

3,7,11-TRIMETHYLDODECA-1,6,10-TRIEN-3-OL,MIXED ISOMERS (CAS: 7212-44-4)

DNEL	Workers - Dermal; Long term systemic effects: 2.8 mg/kg/day
	Workers - Inhalation; Long term systemic effects: 10 mg/m ³
	Consumer - Dermal; Long term systemic effects: 17 mg/kg/day
	Consumer - Oral; Long term systemic effects: 0.8 mg/kg/day

PNEC	Fresh water; 0.00051 mg/l
	Marine water; 0.000051 mg/l
	Sediment (Freshwater); 0.0698 mg/kg
	Sediment (Marinewater); 0.00698 mg/kg
	STP; 10 mg/kg

8.2. Exposure controls

Protective equipment



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Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	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. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Light. Yellow. or Light. Orange.
Odour	Characteristic.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	85°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.091 @ 20°C
Bulk density	No information available.
Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.

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Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
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10.5. Incompatible materials

Materials to avoid	No specific recommendations.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	1,961.26
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Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	32.35
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Skin corrosion/irritation

Skin corrosion/irritation	No information available.
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Serious eye damage/irritation

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Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Reproductive toxicity - development No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed. The product irritates mucous membranes and may cause abdominal discomfort if swallowed.

Skin contact May cause an allergic skin reaction. Symptoms following overexposure may include the following: Irritation. Redness.

Eye contact Causes serious eye damage. Symptoms following overexposure may include the following: Pain or irritation. Profuse watering of the eyes. Redness.

Toxicological information on ingredients.

BENZYL BENZOATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,500.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 1500 mg/kg, Oral, Rat

ATE oral (mg/kg) 1,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 4,000.0

Species Rabbit

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Notes (dermal LD₅₀)	LD ₅₀ 4000 mg/kg, Dermal, Rabbit
Inhalation	Irritating to respiratory system.
Ingestion	Harmful if swallowed. Nausea, vomiting.
Skin contact	Slightly irritating.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

BENZYL ALCOHOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,620.0

Species Rat

ATE oral (mg/kg) 1,620.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 2000 mg/kg, Dermal, Rat

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 11.0

Species Rat

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Animal data Slightly irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Irritating to eyes. OECD 405

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation - Guinea pig: OECD 406 Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Genotoxicity - in vivo Based on available data the classification criteria are not met. OECD 474

Carcinogenicity

Carcinogenicity NOAEL 200 mg/kg/day, Oral, Mouse OECD 453 NOAEL > 400 mg/kg/day, Oral, Rat OECD 451 Based on available data the classification criteria are not met.

Reproductive toxicity

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Reproductive toxicity - fertility Based on available data the classification criteria are not met. Fertility - NOEL 1072 mg/kg/day, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOEL 400 mg/kg, Oral, Rat

Aspiration hazard

Aspiration hazard No information available.

Inhalation Vapour may irritate respiratory system/lungs. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing. Vapours may cause headache, fatigue, dizziness and nausea. Harmful by inhalation.

Ingestion Harmful if swallowed. Nausea, vomiting. Diarrhoea. Headache. Ingestion of large amounts may cause unconsciousness.

Skin contact Prolonged and frequent contact may cause redness and irritation.

Eye contact Causes serious eye irritation.

BENZYL CINNAMATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,280.0

Species Rat

ATE oral (mg/kg) 3,280.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,000.0

Species Rabbit

ATE dermal (mg/kg) 3,000.0

BENZOIC ACID

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,565.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 2565 mg/kg, Oral, Rat LD₅₀ 2250 mg/kg, Oral, Mouse

ATE oral (mg/kg) 2,565.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

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Acute toxicity inhalation (LC ₅₀ dust/mist mg/l)	12.2
Species	Rat
Notes (inhalation LC₅₀)	LC ₅₀ (4h) > 12.2 mg/l, Inhalation, Dust/Mist, Rat OECD 403
ATE inhalation (dusts/mists mg/l)	12.2
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Not irritating. Rabbit
Animal data	Irritating to skin. Guinea pig
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye damage. Severe irritation. Causes burns. Rabbit
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Buehler test - Guinea pig: Not sensitising. Local Lymph Node Assay (LLNA) - Mouse: Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Chromosome aberration: Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met. - NOAEL >500 mg/kg/day, Oral, Rat
Reproductive toxicity - development	No evidence of reproductive toxicity in animal studies.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
<u>Inhalation</u>	
Inhalation	Dust in high concentrations may irritate the respiratory system. Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Irritating to skin.
Eye contact	Causes serious eye damage.

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Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Irritating.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met. Bacterial reverse mutation test

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

BENZYL BENZOATE

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

BENZYL ALCOHOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

BENZOIC ACID

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Very toxic to aquatic life.

Ecological information on ingredients.

BENZYL BENZOATE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 2.3 mg/l, Fish

BENZYL ALCOHOL

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

BALSAM OIL PERU

Acute toxicity - fish	LC ₅₀ , 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow) OECD 203 LC ₅₀ , 96 hour: 10 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 230 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 770 mg/l, Algae NOEC, 72 hours: 310 mg/l, Pseudokirchneriella subcapitata OECD 201
Acute toxicity - microorganisms	IC ₅₀ , 49 hours: 2100 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 51 mg/l, Daphnia magna

BENZYL CINNAMATE

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 2.8 mg/l, Daphnia magna
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BENZOIC ACID

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 44.6 mg/l, Lepomis macrochirus (Bluegill) LC ₅₀ , 96 hours: 47.3 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: >100 mg/l, Daphnia magna OECD 202 EC ₅₀ , 24 hour: 102 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 33.1 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	IC ₅₀ , 3 hour: 1000 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	NOEC, 28 days: > 120 mg/l, Oncorhynchus mykiss (Rainbow trout)
Short term toxicity - embryo and sac fry stages	NOEC, 21 days: >= 25 mg/l,

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Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1
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12.2. Persistence and degradability

BALSAM OIL PERU

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

BENZYL BENZOATE

Persistence and degradability The product is readily biodegradable.

BENZYL ALCOHOL

Persistence and degradability The product is readily biodegradable.

Biodegradation
- Degradation 92 - 96%: 14 days
OECD 301C
- Degradation 95 - 97%: 21 days
OECD 301A

BENZYL CINNAMATE

Persistence and degradability Not readily biodegradable.

BENZOIC ACID

Persistence and degradability The substance is readily biodegradable.

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Persistence and degradability The product is readily biodegradable.

Biodegradation - 70-80%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

BENZYL BENZOATE

Bioaccumulative potential May accumulate in soil and water systems.

Partition coefficient : 3.54

BENZYL ALCOHOL

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient : Log Kow 1.10

BENZYL CINNAMATE

Bioaccumulative potential Potentially bioaccumulating.

BALSAM OIL PERU

Partition coefficient log Pow: 4.1

BENZOIC ACID

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: 1.88

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Partition coefficient log Pow: 4.5

12.4. Mobility in soil

Mobility No information available.

Ecological information on ingredients.**BENZYL BENZOATE**

Mobility The product has poor water-solubility.

BENZYL ALCOHOL

Mobility The product is soluble in water.

Surface tension 39 mN/m @ 20°C OECD 115

BENZOIC ACID

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.

Ecological information on ingredients.**BENZYL ALCOHOL**

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

BENZOIC ACID

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.**BENZYL ALCOHOL**

Other adverse effects Not known.

BENZOIC ACID

BALSAM OIL PERU

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Do not puncture or incinerate, even when empty. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, BENZYL CINNAMATE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, BENZYL CINNAMATE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, BENZYL CINNAMATE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZYL BENZOATE, BENZYL CINNAMATE)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III

BALSAM OIL PERU

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS F-A, S-F

ADR transport category 3

Emergency Action Code •3Z

Hazard Identification Number 90
(ADR/RID)

Tunnel restriction code (-)

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code**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.

Inventories**EU - EINECS/ELINCS**

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Korea - KECI

Not listed.

China - IECSC

All the ingredients are listed or exempt.

BALSAM OIL PERU

Philippines – PICCS

All the ingredients are listed or exempt.

SECTION 16: Other information

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.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: 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.
 EC₅₀: 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

22/08/2018

BALSAM OIL PERU

Version number	1.000
SDS number	55581
SDS status	Approved.
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.
Signature	Jitendra Panchal



Exposure scenario

Manufacturing of the substance, industrial use as intermediate and as a auxiliary for polymerization in a closed continuous process, with occasional exposure

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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, industrial use as intermediate and as a auxiliary for polymerization in a closed continuous process, with occasional exposure
Product category	PC19 Intermediate. PC32 Polymer preparations and compounds.
Main sector	SU3 Industrial uses
Sector of use	SU3 Industrial uses SU8 Manufacture of bulk, large-scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals
<u>Environment</u>	
Environmental release category	ERC1 Manufacture of substances. ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.

Worker

Process category	PROC2 Use in closed, continuous process with occasional controlled exposure
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

Environmental release category	ERC1 Manufacture of substances. ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
--------------------------------	--

Manufacturing of the substance, industrial use as intermediate and as a auxiliary for polymerization in a closed continuous process, with occasional exposure

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Amounts used

Not applicable.

Risk management measures

Technical measures	Not applicable.
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2. Conditions of use affecting exposure (Workers - Health 1)

Control of workers exposure

Process category	PROC2 Use in closed, continuous process with occasional controlled exposure
------------------	---

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts	Covers skin contact area up to 480 cm ² . Palm of both hands.
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Other given operational conditions affecting workers exposure

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

Technical protective measures	Not applicable.
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Risk management measures

Use eye protection to EN 166, designed to protect against powders and dusts.

3. Exposure estimation (Environment 1)

Assessment method	ECETOC TRA v2.0 Environment As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.
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4. Guidance to check compliance with the exposure scenario (Environment 1)

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.

3. Exposure estimation (Health 1)

Assessment method	ECETOC TRA v2.0 Worker
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Manufacturing of the substance, industrial use as intermediate and as a auxiliary for polymerization in a closed continuous process, with occasional exposure

Exposure

Worker - dermal, long-term - systemic: Exposure 1.37 mg/kg/day, DNEL 34.7 , RCR 0.04

Worker - inhalation, long-term - systemic: Exposure 0.01 mg/m³, DNEL 10.4 , RCR 0.009

Worker - dermal, long-term - local: Exposure 0.2 mg/cm², DNEL 4.5 mg/cm², RCR 0.04

Worker - inhalation, long-term - local: Exposure 0.01 mg/m³, DNEL 6.3 mg/m³, RCR 0.001

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

ECETOC TRA v2.0 Worker 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.



Exposure scenario

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

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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 a industrial setting
Sector of use	SU3 Industrial uses
<u>Worker</u>	
Process category	PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.

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

Control of workers exposure

Process category	PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.
------------------	--

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts	Covers skin contact area up to 960 cm ² . Palm of both hands.
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Other given operational conditions affecting workers exposure

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

Setting Indoor.

Risk management measures

Use eye protection to EN 166, designed to protect against powders and dusts.

3. Exposure estimation (Health 1)

Process category	PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.
Assessment method	ECETOC TRA v2.0 Worker
Exposure	Worker - dermal, long-term - systemic: Exposure 13.7 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.39 Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m ³ , DNEL 10.4 mg/m ³ , RCR 0.048 Worker - dermal, long-term - local: Exposure 1 mg/cm ² , DNEL 4.5 mg/cm ² , RCR 0.22 Worker - inhalation, long-term - local: Exposure 0.5 mg/m ³ , DNEL 6.3 mg/m ³ , RCR 0.079

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

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.



Exposure scenario

Transfer of substance into small containers in an industrial setting

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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
Sector of use	SU3 Industrial uses
<u>Worker</u>	Transfer of material from one container to another
Process category	PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing).

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

Control of workers exposure

Process category	PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing).
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Product characteristics

Physical state	Solid, low dustiness
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Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts	Covers skin contact area up to 480 cm ² . Both hands.
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Other given operational conditions affecting workers exposure

Setting	Indoor.
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Risk management measures

Transfer of substance into small containers in an industrial setting

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Health 1)

Process category	PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing).
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/m ³ , DNEL 10.4 mg/m ³ , RCR 0.009 Worker - dermal, long-term - local: Exposure 1 mg/cm ² , DNEL 4.5 mg/cm ² , RCR 0.222 Worker - inhalation, long-term - local: Exposure 0.1 mg/m ³ , DNEL 6.3 mg/m ³ , RCR 0.158

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

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.



Exposure scenario

Industrial use in closed batch process - formulation, intermediate use and auxiliary in polymerization process

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-0000
CAS number	65-85-0
EC number	200-618-2
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 process - formulation, intermediate use and auxiliary in polymerization process
Product category	PC0 Other products. PC4 Anti-freeze and de-icing products. PC8 Biocidal products. PC19 Intermediate. PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents PC29 Pharmaceuticals. PC32 Polymer preparations and compounds. PC39 Cosmetics, personal care.
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging SU3 Industrial uses
<u>Environment</u>	
Environmental release category	ERC2 Formulation of preparations. ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
<u>Worker</u>	
	Polymerisation (bulk and batch)
Process category	PROC3 Use in closed batch process (synthesis or formulation).

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

Control of environmental exposure

Industrial use in closed batch process - formulation, intermediate use and auxiliary in polymerization process

Environmental release category	ERC2 Formulation of preparations. ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
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Product characteristics

Physical state	Solid, low dustiness
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2. Conditions of use affecting exposure (Workers - Health 1)

Control of workers exposure

Process category	PROC3 Use in closed batch process (synthesis or formulation).
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Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts	Covers skin contact area up to 240 cm ² . Palm of one hand.
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Other given operational conditions affecting workers exposure

Setting	Indoor.
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Risk management measures

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Environment 1)

Assessment method	ECETOC TRA v2.0 Environment As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.
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4. Guidance to check compliance with the exposure scenario (Environment 1)

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.

3. Exposure estimation (Health 1)

Process category	PROC3 Use in closed batch process (synthesis or formulation).
Assessment method	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated
Exposure	Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.009 Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m ³ , DNEL 10.4 mg/m ³ , RCR 0.009 Worker - dermal, long-term - local: Exposure 0.1 mg/cm ² , DNEL 4.5 mg/cm ² , RCR 0.022 Worker - inhalation, long-term - local: Exposure 0.1 mg/m ³ , DNEL 6.3 mg/m ³ , RCR 0.015

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

Industrial use in closed batch process - formulation, intermediate use and auxiliary in polymerization process

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.



Exposure scenario

Formulation in batch processes with multistage and or significant contact

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-0000
CAS number	65-85-0
EC number	200-618-2
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	PC0 Other products. PC4 Anti-freeze and de-icing products. PC8 Biocidal products. PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents PC29 Pharmaceuticals. PC39 Cosmetics, personal care.
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging
<u>Environment</u>	
Environmental release category	ERC2 Formulation of preparations.
<u>Worker</u>	
Process category	PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact).

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

Control of workers exposure

Process category	PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact).
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Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Formulation in batch processes with multistage and or significant contact

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts Covers skin contact area up to 480 cm². Both hands.

Other given operational conditions affecting workers exposure

Setting Indoor.

Risk management measures

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Environment 1)

Assessment method ECETOC TRA v2.0 Environment As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

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

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.

3. Exposure estimation (Health 1)

Process category PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact).

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

Exposure

Worker - dermal, long-term - systemic: Exposure 13.7 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.39

Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m³, DNEL 10.4 mg/m³, RCR 0.048

Worker - dermal, long-term - local: Exposure 2 mg/cm², DNEL 4.5 mg/cm², RCR 0.44

Worker - inhalation, long-term - local: Exposure 0.5 mg/m³, DNEL 6.3 mg/m³, RCR 0.08

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

<http://www.ecetoc.org/tra> 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.



Exposure scenario

Industrial use in batch and other process where opportunity for exposure arises

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455563-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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 process where opportunity for exposure arises
Product category	PC19 Intermediate. PC32 Polymer preparations and compounds.
Sector of use	SU3 Industrial uses
<u>Environment</u>	
Environmental release category	ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
<u>Worker</u>	
Process category	PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises.

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

Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

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

Control of workers exposure

Process category	PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises.
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Product characteristics

Physical state	Solid, low dustiness
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Industrial use in batch and other process where opportunity for exposure arises

Concentration details Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

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

Other given operational conditions affecting workers exposure

Setting Indoor.

Risk management measures

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Environment 1)

Assessment method ECETOC TRA v2.0 Environment As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

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

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.

3. Exposure estimation (Health 1)

Assessment method ECETOC TRA v2.0 Worker

Exposure

Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.197

Worker - dermal, long-term - local: Exposure 0.5 mg/m³, DNEL 10.4 mg/m³, RCR 0.048

Worker - inhalation, long-term - local: Exposure 1 mg/cm², DNEL 4.5 mg/cm², RCR 0.222

Worker - inhalation, long-term - systemic: Exposure 0.5 mg/m³, DNEL 6.3 mg/m³, RCR 0.080

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

ECETOC TRA v2.0 Worker 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.



Exposure scenario

Professional use of laboratory chemicals

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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.
Sector of use	SU22 Professional uses

Environment

Environmental release category	ERC8a Wide dispersive indoor use of processing aids in open systems.
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Worker

Process category	PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

Environmental release category	ERC8a Wide dispersive indoor use of processing aids in open systems.
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Product characteristics

Physical state	Solid, low dustiness
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Amounts used

Not applicable.

Risk management measures

Good practice	As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.
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Professional use of laboratory chemicals

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

Control of workers exposure

Process category PROC15 Use as laboratory reagent.

Product characteristics

Physical state Solid, low dustiness

Concentration details Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

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

Other given operational conditions affecting workers exposure

Setting Indoor.

Risk management measures

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Health 1)

Process category PROC15 Use as laboratory reagent.

Assessment method ECETOC TRA v2.0 Worker

Exposure

Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.009

Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m³, DNEL 10.4 mg/m³, RCR 0.009

Worker - dermal, long-term - local: Exposure 0.1 mg/cm², DNEL 4.5 mg/cm², RCR 0.022

Worker - inhalation, long-term - local: Exposure 0.1 mg/m³, DNEL 6.3 mg/m³, RCR 0.158

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

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.



Exposure scenario

Industrial use as an intermediate or auxillary in polymerization processes in a closed continuous process, no likelihood of exposure including storing and forwarding

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-0000
CAS number	65-85-0
EC number	200-618-2
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 intermediate or auxillary in polymerization processes in a closed continuous process, no likelihood of exposure including storing and forwarding
Product category	PC19 Intermediate. PC32 Polymer preparations and compounds.
Sector of use	SU3 Industrial uses
<u>Environment</u>	
Environmental release category	ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
<u>Worker</u>	
Process category	PROC1 Use in closed process, no likelihood of exposure.

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

Control of environmental exposure

Environmental release category	ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers.
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Product characteristics

Physical state	Solid, low dustiness
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Amounts used

Not applicable.

Industrial use as an intermediate or auxiliary in polymerization processes in a closed continuous process, no likelihood of exposure including storing and forwarding

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

Control of workers exposure

Process category PROC1 Use in closed process, no likelihood of exposure.

Product characteristics

Physical state Solid, low dustiness

Concentration details Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

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

Other given operational conditions affecting workers exposure

Setting Indoor.

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

Technical protective measures Not applicable.

Risk management measures

Use eye protection to EN 166, designed to protect against dusts.

3. Exposure estimation (Environment 1)

Assessment method ECETOC TRA v2.0 Environment As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

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

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.

3. Exposure estimation (Health 1)

Process category PROC1 Use in closed process, no likelihood of exposure.

Assessment method ECETOC TRA v2.0 Worker

Exposure

Worker - dermal, long-term - systemic: Exposure 0.343 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.009

Worker - inhalation, long-term - systemic: Exposure 0.01 mg/m³, DNEL 10.4 mg/m³, RCR 0.009

Worker - dermal, long-term - local: Exposure 0.1 mg/cm², DNEL 4.5 mg/cm², RCR 0.022

Worker - inhalation, long-term - local: Exposure 0.01 mg/m³, DNEL 6.3 mg/m³, RCR 0.002

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

Industrial use as an intermediate or auxillary in polymerization processes in a closed continuous process, no likelihood of exposure including storing and forwarding

ECETOC TRA v2.0 Worker 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.



Exposure scenario

Charging/Discharging at dedicated facilities in an industrial setting

Identification

Product name	BENZOIC ACID
REACH registration number	01-2119455536-33-XXXX
CAS number	65-85-0
EC number	200-618-2
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
Sector of use	SU3 Industrial uses
<u>Worker</u>	
Process category	PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.

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

Control of workers exposure

Process category	PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.
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Product characteristics

Physical state	Solid, low dustiness
Concentration details	Concentration of substance in product: 100%

Amounts used

Not applicable.

Frequency and duration of use

Covers daily exposure up to > 4hours

Human factors not influenced by risk management

Potentially exposed body parts	Covers skin contact area up to 480 cm ² . Palm of both hands.
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Other given operational conditions affecting workers exposure

Charging/Discharging at dedicated facilities in an industrial setting

Setting Indoor.

Risk management measures

Use eye protection to EN 166, designed to protect against powders and dusts.

3. Exposure estimation (Health 1)

Process category	PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.
Assessment method	ECETOC TRA v2.0 Worker
Exposure	Worker - dermal, long-term - systemic: Exposure 6.86 mg/kg/day, DNEL 34.7 mg/kg/day, RCR 0.197 Worker - inhalation, long-term - systemic: Exposure 0.1 mg/m ³ , DNEL 10.4 mg/m ³ , RCR 0.009 Worker - dermal, long-term - local: Exposure 1 mg/cm ² , DNEL 4.5 mg/cm ² , RCR 0.22 Worker - inhalation, long-term - local: Exposure 0.1 mg/m ³ , DNEL 6.3 mg/m ³ , RCR 0.016

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

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.



Exposure scenario Formulation

Identification

Product name	Benzyl Alcohol
REACH registration number	01-2119492630-38-XXXX
CAS number	100-51-6
EC number	202-859-9
EU index number	603-057-00-5
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
Process scope	Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

Formulation

Product category	PC1 Adhesives, sealants. PC3 Air care products. PC8 Biocidal products. PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC14 Metal surface treatment products, including galvanic and electroplating products. PC15 Non-metal-surface treatment products. PC18 Ink and toners. PC19 Intermediate. PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents PC21 Laboratory chemicals. PC23 Leather tanning, dye, finishing, impregnation and care products. PC24 Lubricants, greases and release products. PC26 Paper and board dye, finishing and impregnation products, including bleaches and other processing aids. PC27 Plant protection products. PC28 Perfumes, fragrances. PC29 Pharmaceuticals. PC30 Photochemicals. PC31 Polishes and wax blends. PC32 Polymer preparations and compounds. PC34 Textile dyes, finishing and impregnating products, including bleaches and other processing aids. PC35 Washing and cleaning products (including solvent-based products). PC39 Cosmetics, personal care.
Main sector	SU3 Industrial uses
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging
<u>Environment</u>	
Environmental release category	ERC2 Formulation of preparations. ERC3 Formulation in materials.
<u>Worker</u>	
Process category	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 (multistage 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). PROC19 Hand-mixing with intimate contact and only PPE available.

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Formulation

Amounts used

ERC2 Formulation of preparations.
Annual site tonnage: 7645 tonnes
ERC3 Formulation in materials.
Annual site tonnage: 105 tonnes

Frequency and duration of use

ERC2 Formulation of preparations.
Emission days: 300 days/year
ERC3 Formulation in materials.
Emission days: 100 days/year

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Technical measures When not in use, keep containers tightly closed.
STP details Assumed domestic sewage treatment plant flow: 2000 m³/day

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air Local exhaust ventilation - efficiency of at least [%]: 99.9
Water Not applicable as there is no release to wastewater.
Soil Not applicable - no direct release to soil.

Conditions and measures related to external treatment of waste for disposal

Disposal method Hazardous waste incineration.

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

Product characteristics

Physical state Liquid
Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

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

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

Technical protective measures Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions. Provide extract ventilation to points where emissions occur.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures.

Risk management measures

Formulation

Wear suitable working clothes.
Use suitable eye protection and gloves.
Wear a full-face respirator conforming to EN136 with Type A filter or better.

Additional advice

Wash hands before breaks and after work.
Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Environmental exposure Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

The use is assessed to be safe.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

Exposure Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

The use is assessed to be safe.



Exposure scenario Industrial Use

Identification

Product name	Benzyl Alcohol
REACH registration number	01-2119492630-38-XXXX
CAS number	100-51-6
EC number	202-859-9
EU index number	603-057-00-5
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
Product category	PC1 Adhesives, sealants. PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC14 Metal surface treatment products, including galvanic and electroplating products. PC15 Non-metal-surface treatment products. PC18 Ink and toners. PC19 Intermediate. PC24 Lubricants, greases and release products. PC26 Paper and board dye, finishing and impregnation products, including bleaches and other processing aids. PC30 Photochemicals. PC32 Polymer preparations and compounds. PC34 Textile dyes, finishing and impregnating products, including bleaches and other processing aids. PC35 Washing and cleaning products (including solvent-based products).
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC4 Industrial use of processing aids in processes and products, not becoming part of articles. ERC6a Industrial use resulting in manufacture of another substance (use of intermediates). ERC6b Industrial use of reactive processing aids. ERC7 Industrial use of substances in closed systems.
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Industrial Use

Worker

Process category

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 (multistage 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).
 PROC19 Hand-mixing with intimate contact and only PPE available.

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

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 40 %.

Frequency and duration of use

Continuous use/release.

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
 Local marine water dilution factor: 100

Risk management measures

Technical measures When not in use, keep containers tightly closed.

STP details Assumed domestic sewage treatment plant flow: 2000 m³/day

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air Local exhaust ventilation - efficiency of at least [%]: 99.9

Water Not applicable as there is no release to wastewater.

Soil Not applicable - no direct release to soil.

Conditions and measures related to external treatment of waste for disposal

Disposal method Hazardous waste incineration.

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

Product characteristics

Physical state Liquid , or: Solid

Concentration details Covers concentrations up to 40 %.

Frequency and duration of use

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

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

Industrial Use

Technical protective measures Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions. Provide extract ventilation to points where emissions occur.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures.

Risk management measures

Wear suitable working clothes.
Use suitable eye protection and gloves.
Wear a full-face respirator conforming to EN136 with Type A filter or better.

Additional advice Wash hands before breaks and after work.
Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.
The use is assessed to be safe. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. The use is assessed to be safe.



Exposure scenario Professional Use

Identification

Product name	Benzyl Alcohol
REACH registration number	01-2119492630-38-XXXX
CAS number	100-51-6
EC number	202-859-9
EU index number	603-057-00-5
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
Product category	PC1 Adhesives, sealants. PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC14 Metal surface treatment products, including galvanic and electroplating products. PC15 Non-metal-surface treatment products. PC18 Ink and toners. PC21 Laboratory chemicals. PC26 Paper and board dye, finishing and impregnation products, including bleaches and other processing aids. PC30 Photochemicals. PC31 Polishes and wax blends. PC32 Polymer preparations and compounds. PC35 Washing and cleaning products (including solvent-based products).
Main sector	SU22 Professional uses
<u>Environment</u>	
Environmental release category	ERC8a Wide dispersive indoor use of processing aids in open systems. ERC8b Wide dispersive indoor use of reactive substances in open systems. ERC8d Wide dispersive outdoor use of processing aids in open systems. ERC8e Wide dispersive outdoor use of reactive substances in open systems.

Worker

Professional Use

Process category	PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage 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). PROC10 Roller application or brushing of adhesive and other coating. PROC11 Spraying outside industrial settings and/or applications. PROC13 Treatment of articles by dipping and pouring. PROC19 Hand-mixing with intimate contact and only PPE available.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Amounts used

ERC8a Wide dispersive indoor use of processing aids in open systems.
Annual amount for wide dispersive uses: 5880 tonnes

ERC8b Wide dispersive indoor use of reactive substances in open systems.
Annual amount for wide dispersive uses: 55 tonnes

ERC8d Wide dispersive outdoor use of processing aids in open systems.
Annual amount for wide dispersive uses: 5870 tonnes

ERC8e Wide dispersive outdoor use of reactive substances in open systems.
Annual amount for wide dispersive uses: 50 tonnes

Frequency and duration of use

Continuous use/release.

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100
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Risk management measures

Technical measures	When not in use, keep containers tightly closed.
STP details	Assumed domestic sewage treatment plant flow: 2000 m ³ /day

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Water	Not applicable as there is no release to wastewater.
Soil	Not applicable - no direct release to soil.

Conditions and measures related to external treatment of waste for disposal

Disposal method	Hazardous waste incineration.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Physical state	Liquid , or: Solid
Concentration details	Covers concentrations up to 40 %.

Frequency and duration of use

Professional Use

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

Covers exposure up to 230days/year

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Ensure operatives are trained to minimise exposures.

Risk management measures

Wear suitable working clothes.

Use suitable eye protection and gloves.

Wear a full-face respirator conforming to EN136 with Type A filter or better.

Additional advice Wash hands before breaks and after work.

Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

The use is assessed to be safe. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. The use is assessed to be safe.



Exposure scenario Consumer Use

Identification

Product name	Benzyl Alcohol
REACH registration number	01-2119492630-38-XXXX
CAS number	100-51-6
EC number	202-859-9
EU index number	603-057-00-5
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	Consumer Use
Process scope	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.
Product category	PC1 Adhesives, sealants. PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC18 Ink and toners. PC31 Polishes and wax blends. PC34 Textile dyes, finishing and impregnating products, including bleaches and other processing aids. PC35 Washing and cleaning products (including solvent-based products).
Main sector	SU21 Consumer uses
<u>Environment</u>	
Environmental release category	ERC8a Wide dispersive indoor use of processing aids in open systems. ERC8b Wide dispersive indoor use of reactive substances in open systems. ERC8d Wide dispersive outdoor use of processing aids in open systems. ERC8e Wide dispersive outdoor use of reactive substances in open systems.

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

Product characteristics

Physical state	Liquid , or: Solid
Concentration details	Covers concentrations up to 50 %.

Consumer Use

Amounts used

ERC8a Wide dispersive indoor use of processing aids in open systems.
Annual amount for wide dispersive uses: 5880 tonnes
ERC8b Wide dispersive indoor use of reactive substances in open systems.
Annual amount for wide dispersive uses: 55 tonnes
ERC8d Wide dispersive outdoor use of processing aids in open systems.
Annual amount for wide dispersive uses: 5870 tonnes
ERC8e Wide dispersive outdoor use of reactive substances in open systems.
Annual amount for wide dispersive uses: 50 tonnes

Frequency and duration of use

Emission days: 365 days/year

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

STP details Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal

Waste treatment Dispose of waste cans and containers according to local regulations.

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

Product characteristics

Physical state Liquid
Concentration details Covers concentrations up to 5 %. Unless otherwise stated.

PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover) Covers concentrations up to 50 %. PC1 Adhesives, sealants. PC9b_1 Fillers and putty Covers concentrations up to 25 %. PC9b_2 Plasters and floor equalisers Covers concentrations up to 15 %. PC35 Washing and cleaning products (including solvent-based products). Covers concentrations up to 10 %.

Amounts used

(Default)
ConsExpo v4.1

Frequency and duration of use

(Default)
ConsExpo v4.1

Human factors not influenced by risk management

Potentially exposed body parts Respiration volume under conditions of use: 24.1 litre

Other given operational conditions affecting Non-industrial exposure

(Default) ConsExpo v4.1

Other given operational conditions affecting Non-industrial exposure

Consumer information Wood parquet glue Avoid using without gloves.

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

Consumer Use

The use is assessed to be safe. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method

ConsExpo v4.1

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. The use is assessed to be safe.