Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

1.1 Product identifier

Air Freshener Berry Bubble Gum

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

Relevant identified uses of the substance or mixture:
Air-Freshener

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

GB

LIQUI MOLY GmbH
Jerg-Wieland-Str. 4
89081 Ulm-Lehr
Tel.: (+49) 0731-1420-0
Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

GB

Landspitali- The National University Hospital of Iceland, tel. +354 543 2222 or 112 (valid only for Iceland)

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LMR)
+1 872 5888271 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Warning

H317-May cause an allergic skin reaction. H411-Toxic to aquatic life with long lasting effects.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves.
P333+P313-If skin irritation or rash occurs: Get medical advice / attention.
P501-Dispose of contents / container to an approved waste disposal facility.

(R)-p-mentha-1,8-diene
Linalool
Ethyl 2,3-epoxy-3-phenylbutyrat
1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one
(-)-pin-2(10)-ene

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Propanedioic acid, 1-(3,3-dimethylcyclohexyl)ethyl ethyl ester	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	455-260-1
CAS	---
content %	2,5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

(R)-p-mentha-1,8-diene	
Registration number (REACH)	---
Index	601-096-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	227-813-5
CAS	5989-27-5
content %	2,5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412

Vanillin	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	204-465-2
CAS	121-33-5
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Irrit. 2, H319

Linalool	
Registration number (REACH)	---
Index	603-235-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	201-134-4
CAS	78-70-6
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

Benzyl acetate	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	205-399-7
CAS	140-11-4
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 3, H412

Ethyl 2,3-epoxy-3-phenylbutyrat	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	201-061-8
CAS	77-83-8
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317 Aquatic Chronic 2, H411

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	251-649-3
CAS	33704-61-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411

(-)-pin-2(10)-ene	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	242-060-2
CAS	18172-67-3
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.
The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!

Inhalation
Supply person with fresh air and consult doctor according to symptoms.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
reddening of the skin
Allergic reaction

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

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

Unsuitable extinguishing media
High volume water jet

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Phenol
Oxides of nitrogen
Toxic gases

5.3 Advice for firefighters
For personal protective equipment see Section 8.
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
6.1.1 For non-emergency personnel
In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.
Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.
Leave the danger zone if possible, use existing emergency plans if necessary.
Avoid contact with eyes or skin.

6.1.2 For emergency responders
See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Pick up mechanically and dispose of according to Section 13.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations
Avoid contact with eyes.
Avoid long lasting or intensive contact with skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Store at room temperature.
Store in a dry place.

7.3 Specific end use(s)
No information available at present.
Observe the instructions for good working practice and the recommendations for risk assessment.
Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Vanillin						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,118	mg/l	
	Environment - marine		PNEC	0,012	mg/l	
	Environment - sediment, freshwater		PNEC	58,22	mg/kg dw	
	Environment - sediment, marine		PNEC	5,822	mg/kg dw	
	Environment - soil		PNEC	11,54	mg/kg dw	

	Environment - sewage treatment plant		PNEC	10	mg/l	

Linalool

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,2	mg/l	
	Environment - marine		PNEC	0,02	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	2,22	mg/kg	
	Environment - sediment, marine		PNEC	0,222	mg/kg	
	Environment - soil		PNEC	0,3	mg/kg	
Consumer	Human - dermal	Short term, local effects	DNEL	15	mg/cm2	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,7	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,2	mg/kg bw/d	
Consumer	Human - dermal	Short term, systemic effects	DNEL	2,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	4,1	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	1,2	mg/kg bw/d	
Consumer	Human - dermal	Long term, local effects	DNEL	15	mg/kg bw/d	
Consumer	Human - dermal	Short term, systemic effects	DNEL	15	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,8	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	5	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	16,5	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	15	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, local effects	DNEL	15	mg/kg bw/d	

(R)-p-mentha-1,8-diene

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	14	µg/l	
	Environment - marine		PNEC	1,4	µg/l	
	Environment - sewage treatment plant		PNEC	1,8	mg/l	
	Environment - sediment, freshwater		PNEC	3,85	mg/kg dw	
	Environment - sediment, marine		PNEC	0,385	mg/kg dw	
	Environment - soil		PNEC	0,763	mg/kg dw	

Consumer	Human - inhalation	Long term, systemic effects	DNEL	8,33	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	4,76	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	66,7	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	9,5	mg/kg	

Benzyl acetate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,004	mg/l	
	Environment - marine		PNEC	0,0004	mg/l	
	Environment - periodic release		PNEC	0,04	mg/l	
	Environment - sewage treatment plant		PNEC	8,55	mg/l	
	Environment - sediment, freshwater		PNEC	0,114	mg/kg	
	Environment - sediment, marine		PNEC	0,0114	mg/kg	
	Environment - soil		PNEC	0,0205	mg/kg	
Consumer	Human - oral	Short term, systemic effects	DNEL	6,25	mg/kg bw/day	
Consumer	Human - dermal	Short term, systemic effects	DNEL	6,25	mg/kg bw/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	11	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	5,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	3,125	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	9	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	43,8	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6,25	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	12,5	mg/kg bw/day	

Ethyl 2,3-epoxy-3-phenylbutyrat

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,008	mg/l	
	Environment - marine		PNEC	8,4	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,214	mg/kg dw	
	Environment - sediment, marine		PNEC	0,021	mg/kg dw	
	Environment - soil		PNEC	0,038	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,17	mg/m3	

Consumer	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	2,45	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	5	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	17,63	mg/m3	

(-)-pin-2(10)-ene						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	1,004	µg/l	
	Environment - marine		PNEC	0,1	µg/l	
	Environment - sewage treatment plant		PNEC	3,26	mg/l	
	Environment - sediment, freshwater		PNEC	0,337	mg/kg dw	
	Environment - sediment, marine		PNEC	0,034	mg/kg dw	
	Environment - soil		PNEC	0,067	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,3	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,3	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5,69	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,8	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,054	mg/cm2	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Normally not necessary.

Skin protection - Hand protection:
Normally not necessary.

Skin protection - Other:
Normally not necessary.

Respiratory protection:
Normally not necessary.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Solid. Active substance: liquid.
Colour:	Yellow
Odour:	There is no information available on this parameter.
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	There is no information available on this parameter.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	>60 °C
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	<=20,5 mm2/s (40°C, There is no information available on this parameter.)
Solubility:	Insoluble
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	0,906-0,926
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	There is no information available on this parameter.

9.2 Other information

Solubility(ies):	Ethanol
Fat solubility / solvent:	Soluble

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Heating, open flame, ignition sources

10.5 Incompatible materials
Avoid contact with strong alkalis.
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

Air Freshener Berry Bubble Gum

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

(R)-p-mentha-1,8-diene

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Germ cell mutagenicity:						Negative
Reproductive toxicity:						Negative
Symptoms:						diarrhoea, rash, itching, gastrointestinal disturbances, mucous membrane irritation, nausea and vomiting.

Vanillin

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3925-3978	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	
Acute toxicity, by dermal route:	LD50	>5010	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit	Regulation (EC) 440/2008 B.4 (ACUTE DERMAL IRRITATION/CORROSION)	Not irritant, Mechanical irritation possible.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Guinea pig	Regulation (EC) 440/2008 B.6 (SKIN SENSITISATION)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative

Linalool

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2790	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	5610	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative

Benzyl acetate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2490	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	> 5000	mg/kg	Rabbit		

Ethyl 2,3-epoxy-3-phenylbutyrat

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Human being	Regulation (EC) 440/2008 B.46 (IN VITRO SKIN IRRITATION - RECONSTRUCTED HUMAN EPIDERMIS TEST METHOD)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig		Yes (skin contact)
Reproductive toxicity:	NOEL	1000	mg/kg bw/d	Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2901	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Skin corrosion/irritation:				Human being	Regulation (EC) 440/2008 B.46 (IN VITRO SKIN IRRITATION - RECONSTRUCTED HUMAN EPIDERMIS MODEL TEST)	Irritant

Serious eye damage/irritation:				Chicken	OECD 438 (Isolated Chicken Eye Test Method for Identifying Ocular Corrosives and Severe Irritants)	Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity:				Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	10	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

(-)-pin-2(10)-ene

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4700	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Skin corrosion/irritation:				Human being		Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Aspiration hazard:						Yes
Symptoms:						ataxia, respiratory distress, eyes, reddened, abdominal pain, burning of the membranes of the nose and throat, diarrhoea, sore throat, coughing, headaches, mucous membrane irritation, pain in chest, dizziness

11.2. Information on other hazards

Air Freshener Berry Bubble Gum

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.

Other information:						No other relevant information available on adverse effects on health.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Air Freshener Berry Bubble Gum

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:	DOC						DOC-elimination degree(complexing organic substance)>= 80%/28d: n.a.
Other information:	AOX						Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

(R)-p-mentha-1,8-diene

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,70	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,307	mg/l	Daphnia magna STRAUS	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,32	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	80	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.2. Persistence and degradability:		28d	80	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable

12.3. Bioaccumulative potential:	Log Pow		4,23				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	209	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Vanillin

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	123	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	36,79	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.2. Persistence and degradability:		14d	97-100	%	activated sludge	OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,21				Slight
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Linalool

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	27,8	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	59	mg/l	Daphnia magna	DIN 38412 T.11	
12.1. Toxicity to algae:	EC50	96h	156,7	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	BOD	28d	64,2	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,84			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	> 100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Benzyl acetate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	4	mg/l	Oryzias latipes	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	17	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	110	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	52	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	92	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,96				A notable biological accumulation potential is not to be expected (LogPow 1-3)., Low25 °C
12.3. Bioaccumulative potential:	BCF		8				Low, calculated value
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	855	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Ethyl 2,3-epoxy-3-phenylbutyrat							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	4,2	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	52	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	36	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	9,3	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

12.2. Persistence and degradability:		28d	53	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Koc		2,74			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	
12.4. Mobility in soil:	Log Koc		2,34-2,74			OECD 121 (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using HPLC)	

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2,12	mg/l	Oryzias latipes		
12.1. Toxicity to daphnia:	EC50	48h	1,5	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	10	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

(-)-pin-2(10)-ene

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,502	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to algae:	EC50	72h	0,7	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	76	%	activated sludge	OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		4,425			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	High
12.3. Bioaccumulative potential:	BCF		838				High
Toxicity to bacteria:	EC50	3h	326	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
20 03 01 mixed municipal waste
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

Transport by road/by rail (ADR/RID)

14.1. UN number or ID number:	3077
14.2. UN proper shipping name:	
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPANEDIOIC ACID, 1-(3,3-DIMETHYLCYCLOHEXYL)ETHYL ETHYL ESTER, PIN-2(10)-ENE)	
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
14.5. Environmental hazards:	environmentally hazardous
Tunnel restriction code:	-
Classification code:	M7
LQ:	5 kg
Transport category:	3



Transport by sea (IMDG-code)

14.1. UN number or ID number:	3077
14.2. UN proper shipping name:	
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPANEDIOIC ACID, 1-(3,3-DIMETHYLCYCLOHEXYL)ETHYL ETHYL ESTER, PIN-2(10)-ENE)	
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
14.5. Environmental hazards:	environmentally hazardous
Marine Pollutant:	Yes
EmS:	F-A, S-F



Transport by air (IATA)

14.1. UN number or ID number:	3077
14.2. UN proper shipping name:	
UN 3077 Environmentally hazardous substance, solid, n.o.s. (PROPANEDIOIC ACID, 1-(3,3-DIMETHYLCYCLOHEXYL)ETHYL ETHYL ESTER, PIN-2(10)-ENE)	
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
14.5. Environmental hazards:	environmentally hazardous



14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 4,05 %

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: n.a.
Employee training in handling dangerous goods is required.
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
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.
H412 Harmful to aquatic life with long lasting effects.

Skin Sens. — Skin sensitization
Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aquatic Acute — Hazardous to the aquatic environment - acute
Flam. Liq. — Flammable liquid
Skin Irrit. — Skin irritation
Asp. Tox. — Aspiration hazard
Eye Irrit. — Eye irritation

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BSEF The International Bromine Council
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
mg/kg bw mg/kg body weight
mg/kg bw/d, mg/kg bw/day mg/kg body weight/day
mg/kg dw mg/kg dry weight
mg/kg wwt mg/kg wet weight
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

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