

SAFETY DATA SHEET

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

1.1 Product identifier

Product name: Conservante Sharomix C8

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

Product use: Cosmetics, personal care products

1.3 Details of the supplier of the safety data sheet

Company: TERPENIC LABS
Address: Vulcà 57
City: La Garriga
Province: Barcelona
Telephone: 931173847
E-mail: regulatory@terpenic.com
Web: www.terpenic.com

1.4 Emergency telephone number

Supplier

Telephone number: 931173847 (Only available during office hours; Monday-Friday; 08:00-17:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms:



Signal word:

Danger

- Hazard statements** : H302 + H332 – Harmful if swallowed or if inhaled
H318 – Causes serious eye damage
H315 – Causes skin irritation
H373 – May cause damage to organs through prolonged or repeated exposure
- Precautionary statements**
- Prevention** : P280 - Wear protective gloves. Wear eye or face protection.
P260 - Do not breathe vapour.
- Response** : P301 + P310 + P331 – IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting
P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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.
P310 - Immediately call a POISON CENTER or physician.
- Storage** : Not available
- Disposal** : Not available
- Supplemental label elements** : Benzyl alcohol
Benzoic acid
- Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable

SECTION 3: Composition/information on ingredients

2.3 Other hazards

- Other hazards which do not result in classification** : None known

3.2 Mixtures: Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	79.3-82.7	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1]

3-acetyl-6-methyl-2H-pyran-2,4(3H)-dione	EC: 208-293-9 CAS: 520-45-6 Index: 607-163-00-2	8.3 - 9.7	Acute Tox. 4, H302	[1]
benzoic acid	REACH #: 01-2119455536-33 EC: 200-618-2 CAS: 65-85-0 Index: 607-705-00-8	5.4 - 6.6	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 1, H372 (lungs) (inhalation)	[1]
hexa-2,4-dienoic acid	EC: 203-768-7 CAS: 110-44-1	3.6 - 4.4	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
			See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First aid measures

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled.
Skin contact : Causes skin irritation.
Ingestion : Harmful if swallowed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following
Pain
Watering
Redness

Inhalation specific data : No specific data

Skin contact : Adverse symptoms may include the following:
Pain or irritation
Redness
Blistering may occur

Ingestion : Adverse symptoms may include the following:
Stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Accidental precautions, protective equipment and emergency procedures

- Special protective actions for fire-fighters** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

- 6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other section : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Section 7. Handling and storage: The information in this section contains generic advice and guidance.

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Recommended: Combination filtering device (DIN EN 14387), Filter type: A-P2.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid
- Colour** : Clear. Yellow.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Not available
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Vapour pressure** : Not available.
- Vapour density** : Not available.
- Relative density** : Not available.
- Solubility(ies)** : Not available.

Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Not available.
Explosive properties	:	Not available.
Oxidising properties	:	Not available.

9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Due to gaseous decomposition products, overpressure can occur in tightly sealed containers. Keep away from heat, sparks and flame.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: Oxidizing materials, alkalis, acids.
10.6 Hazardous decomposition products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
Benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m ³	4 hours	-
	LD50 Oral	Rat - Male	1620 mg/kg	-	-
3-acetyl-6-methyl-2Hpyran-2,4(3H)-dione	LD50 Dermal	Rabbit	>3000 mg/kg	-	-
	LD50 Oral	Rat	500 mg/kg	-	-
benzoic acid	LC50 Inhalation Dusts and mists	Rat	>12.2 mg/l	-	Mortality: none.
	LD50 Dermal	Rabbit	>2000 mg/kg	-	Mortality: none.
	LD50 Oral [OECD 401]	Mouse - Male, Female	2250 mg/kg	-	-
	LD50 Oral [OECD 401]	Rat - Male, Female	2565 mg/kg	-	-
hexa-2,4-dienoic acid	LD50 Dermal [OECD 402]	Rat - Male, Female	>2000 mg/kg	-	-
	LD50 Oral	Rat - Male,	10500 mg/kg	-	-

		Female		
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Conclusion/Summary : Harmful if swallowed or inhaled.

Acute toxicity estimates

Route	ATE value
Oral	1467.7 mg/kg
Inhalation (vapours)	13.75 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	Remarks
benzyl alcohol	Eyes - Mild irritant [OECD 405]	Rabbit	-	-	-	-
	Skin - Non-irritating to the skin. [OECD 404]	Rabbit	-	-	-	-
3-acetyl-6-methyl-2Hpyran-2,4(3H)-dione	Skin - Non-irritating to the skin. [OECD 404]	Rabbit	-	3 hours	48 hours	-
	Eyes - Non-irritating to the eyes. [OECD 438]	Mammal - species unspecified	-	0.17 minutes	240 minutes	-
benzoic acid	Skin - Moderate irritant	Human	-	-	-	-
	Eyes - Severe irritant	Rabbit	-	-	-	-
hexa-2,4-dienoic acid	Skin - Non-irritating to the skin. [OECD 404]	Rabbit	0	-	-	-
	Eyes - Irritant [OECD 405]	Rabbit	-	24 hours	-	-
	Skin - Severe irritant	Man	-	1 hours 150 milligrams	-	-
	Skin - Severe irritant	Rabbit	-	1 milligrams	-	-

Conclusion/Summary

Skin	:	Causes skin irritation
Eyes	:	Causes serious eye damage

Sensitisation

Product/ingredient name	Route of exposure	Species	Result	Remarks
benzyl alcohol	skin	Guinea pig	Not sensitizing	-
3-acetyl-6-methyl-2Hpyran-2,4(3H)-dione	skin	Mouse	Not sensitizing [OECD 429]	-
benzoic acid	skin	Mouse	Not sensitizing	-
hexa-2,4-dienoic acid	skin	Guinea pig	Not sensitizing	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
benzyl alcohol	OECD 476	Experiment: In vitro Subject: Mammalian- Animal Cell: Somatic	Positive	-
	OECD 474	Experiment: In vivo Subject: Mammalian- Animal	Negative	-
	-	Experiment: In vitro Subject: Bacteria	Negative	-
	OECD 490	Experiment: In vitro Subject: Mammalian- Animal Cell: Somatic	Negative	-
	OECD 473	Experiment: In vitro Subject: Mammalian- Human Cell: Somatic	Negative	test substance: CAS no. 4418-26-2. (readacross)
	-	Experiment: In vivo Subject: Mammalian- Animal Cell: Somatic	Negative	-
benzyl alcohol	OECD 471	Experiment: In vitro Subject: Bacteria	Negative	-
	OECD 487	Experiment: In vitro Subject: Mammalian- Animal Cell: Somatic	Negative	test substance: CAS no. 532-32-1. (read-across)
	OECD 475	Experiment: In vivo Subject: Mammalian- Animal Cell: Somatic	Negative	-
hexa-2,4-dienoic acid	-	Experiment: In vitro Subject: Mammalian- Human Cell: Somatic	Negative	-
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
benzoic acid	Negative - Oral - TC	Rat - Male, Female	>1000 mg/ kg NOAEL	24 months; 7 days per week	test substance: CAS no. 532-32-1. (readacross)
hexa-2,4-dienoic acid	Negative - Oral - TC	Rat - Male, Female	750 mg/kg NOAEL	2 years	-

Conclusion/Summary : Not available

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure	Remarks
benzyl alcohol	Positive	-	-	Mouse - Female	Oral: 550 to 750 mg/kg	8 days; 7 days per week	
3-acetyl-6-methyl-2Hpyran-2,4(3H)-dione	Negative	Negative	-	Rat	Oral: 50 mg/kg NOAEL	12 days; 7 days per week	
benzoic acid	Negative	Negative	-	Rat	Oral: 500 mg/kg NOAEL	-	
hexa-2,4-dienoic acid	Negative	Negative	Negative	Rat - Male, Female	Oral: 1000 mg/kg NOAEL	7 days per week	OECD 416

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
benzyl alcohol	Negative - Oral	Mouse - Female	750 mg/kg	8 days; 7 days per week	-
	Negative - Oral	Mouse - Female	550 mg/kg	8 days; 7 days per week	-
3-acetyl-6-methyl-2Hpyran-2,4(3H)-dione	Negative - Oral	Mouse - Female	≥100 mg/kg NOAEL	10 days; 7 days per week	-
benzoic acid	Negative - Oral	Rat - Female	>175 mg/kg NOEL	10 days; 7 days per week	test substance: CAS no. 532-32-1. (readacross)
hexa-2,4-dienoic acid	Negative - Oral [OECD 414]	Rabbit - Female	300 mg/kg NOAEL	23 days; 7 days per week	-

Conclusion/Summary : Based on available data, the classification are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
hexa-2,4-dienoic acid	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
benzoic acid	Category 1	Inhalation	Lungs

Aspiration hazard: Not available

Information on likely routes of exposure : Not available

Potential acute health effects

Eye contact : Causes serious eye damage
Inhalation : Harmful if inhaled
Skin contact : Causes skin irritation
Ingestion : Harmful if swallowed

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
Ingestion : Adverse symptoms may include the following:
 stomach pains

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

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
benzyl alcohol	Sub-chronic NOAEL Oral	Rat - Male, Female	400 mg/kg	13 weeks; 5 days per week	-
	Sub-chronic NOAEL Oral	Mouse - Male, Female	200 mg/kg	13 weeks; 7 days per week	-
	Sub-acute NOAEL Inhalation Dusts and mists	Rat - Male, Female	1072 mg/m ³	4 weeks; 6 hours per day	-
3-acetyl-6-methyl 2Hpyran-2,4(3H)-dione	Sub-chronic NOAEL Oral	Rat - Male	100 mg/kg	34 days	-
benzoic acid	Chronic NOAEL Oral	Rat - Male, Female	1000 mg/kg	24 months; 7 days per week	-
	Sub-acute NOAEL Dermal	Rabbit - Male, Female	>2500 mg/kg	3 weeks; 7 days per week	-
	Sub-acute NOAEL Inhalation Dusts and mists [OECD 412]	Rat - Male, Female	250 mg/m ³	4 weeks; 6 hours per day	-
hexa-2,4-dienoic acid	Sub-chronic NOAEL Oral [OECD 407]	Rat - Male, Female	8600 to 9200 mg/kg	28 days	-

Conclusion/Summary	:	Based on available data, the classification criteria are not met.
General	:	May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	:	No known significant effects or critical hazards.

Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.
Other information	:	Not available

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure	Remarks
benzyl alcohol	Acute EC50 230 mg/l [OECD 202]	Daphnia - Daphnia magna	48 hours	-
	Acute IC50 700 mg/l [OECD 201]	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute LC50 460 mg/l	Fish – Pimephales promelas	96 hours	-
	Chronic NOEC 51 mg/l [OECD 211]	Daphnia – Daphnia magna	21 days	-
3-acetyl-6-methyl-2Hpyran- 2,4(3H)-dione	NOEC 38 mg/l Fresh wáter [OECD 301F]	Micro-organism	14 days	-
	Acute EC50 32.1 mg/l Fresh water [OECD 201]	Alga-Pseudokirchneriella subcapitata	72 hours	-
	Acute EC50 >100 mg/l Fresh water [OECD 202]	Daphnia – Daphnia magna	48 hours	-
	Chronic EC10 23.9 mg/l Fresh water [OECD 201]	Algae - Pseudokirchneriella subcapitata	72 hours	-
benzoic acid	Acute EC50 >33.1 mg/l	Algae	72 hours	-
	Acute EC50 >100 mg/l Fresh water	Daphnia	48 hours	-
	Acute LC50 44.6 mg/l	Fish	96 hours	-
	Chronic EC10 3.4 mg/l	Algae	72 hours	-
	Chronic NOEC ≥25 mg/l Fresh water	Daphnia	21 days	-
	Chronic NOEC >120 mg/l	Fish	28 days	-
hexa-2,4-dienoic acid	Acute EC50 24.1 mg/l Fresh water [OECD 201]	Algae – Desmodesmus subspicatus	72 hours	-
	Acute EC50 70 mg/l Fresh water [OECD 202]	Daphnia – Daphnia magna	48 hours	-
	Acute LC50 75 mg/l Fresh water [OECD 203]	Fish - Oryzias latipes	96 hours	-
	Chronic NOEC 6.47 mg/l Fresh water [OECD 201]	Algae - Desmodesmus subspicatus	72 hours	-
	Chronic NOEC 50 mg/l Fresh water [OECD 211]	Daphnia – Daphnia magna	21 days	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
benzyl alcohol	OECD 301 A	95 to 97 % - Readily - 21 days	-	-
	OECD 302 C	92 to 96 % - Inherent - 14 days	-	-

3-acetyl-6-methyl-2H-pyran-2,4(3H)-dione	OECD 301 F	70 % - Readily - 28 days	-	-
benzoic acid	OECD 311	≥89.5 % - Readily - 35 days	-	-
hexa-2,4-dienoic acid	OECD 301 D	74.9 % - Readily - 28 days	-	-

Conclusion/Summary : There are no data available on the mixture itself.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol	-	-	Readily
3-acetyl-6-methyl-2H-pyran-2,4(3H)-dione	-	-	Readily
benzoic acid	-	-	Readily
hexa-2,4-dienoic acid	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
benzyl alcohol	1.05	-	Low
3-acetyl-6-methyl-2H-pyran-2,4(3H)-dione	0.78	-	Low
benzoic acid	1.88	-	Low
hexa-2,4-dienoic acid	1.33	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not available.
vPvB : Not available.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible.

Special precautions : The generation of waste should be avoided or minimised wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	AND	IMDG	IATA
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
Label				
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	Marine Pollutant: No	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.
**on the manufacture, placing
on the market and use of
certain dangerous
substances, mixtures and
articles**

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II, III Chemicals

Not Listed

Montreal Protocol (Annexes A, B, C, E)

Not listed

Stockholm Convention on Persistent Organic Pollutants

Not listed

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AICS) : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : **Japan inventory (ENCS):**
All components are listed or exempted.
New Zeland : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Turkey : All components are listed or exempted.
United States : All components are listed or exempted.

15.2 Chemical safety assessment : Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

SECTION 16: Other information

Abbreviations and acronyms :

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H302	Calculation method
Acute Tox. 4, H332	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	H315 Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H372 (inhalation)	Causes damage to organs through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1, H372 (inhalation)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 1
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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