

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 Issue date: 2/11/2021 Revision date: 5/5/2023 Supersedes version of: 6/20/2022 Version: 1.2

SECTION 1. Id	lentification of the substan	ce/mixtu	re and of the company/	undertaking	
1.1. Product id			re and of the company/		
Product form		: Mixture	2		
Product name		: ORGAN	IC PINEAPPLE FLAVOUR AN-0	456	
Product code		: ANAN-/			
1.2. Relevant i	dentified uses of the substanc	e or mixtu	re and uses advised again	st	
1.2.1. Relevant i	dentified uses				
Main use category		: Industr	ial use, Professional use		
1.2.2. Uses advised against					
	formation available				
1.3. Details of	the supplier of the safety data	sheet			
FR- 06130 GRAS FRANCE T 04.93.36.22.22	gnol PA Aromagrasse				
1.4. Emergency	y telephone number				
Country	Organisation/Company		Address	Emergency number	Comment
-	ORFILA			+33 1 45 42 59 59	
				100 1 10 12 00 00	
SECTION 2: H	azards identification				
2.1. Classificati	ion of the substance or mixtu	re 🛛			
Flammable liquid Serious eye dam	cording to Regulation (EC) No. 12 ds, Category 2 age/eye irritation, Category 2 d EUH-statements: see section 16		LP] H225 H319		
	chemical, human health and env e liquid and vapour. Causes seriou				
2.2. Label elem	nents				
Labelling accord Hazard pictograr	ing to Regulation (EC) No. 1272/2 ns (CLP)	2008 [CLP] :			
		GHS	602 GHS07		
Signal word (CLP)	: Danger			
Hazard statemer	nts (CLP)		Highly flammable liquid and v Causes serious eye irritation.	/apour.	
Precautionary st	atements (CLP)	sources P280 - V	Keep away from heat, hot sur 5. No smoking. Wear protective gloves, prote 313 - If eye irritation persists	ective clothing, eye protection	n.
2.3. Other haza	ards				

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol; ethyl alcohol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	15 – 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319
ethyl acetate substance with a Community workplace exposure limit	CAS-No.: 141-78-6 EC-No.: 205-500-4 EC Index-No.: 607-022-00-5	0.1-0.9	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
isopentyl acetate substance with a Community workplace exposure limit	CAS-No.: 123-92-2 EC-No.: 204-662-3 EC Index-No.: 607-130-00-2 REACH-no: 01-2119548408- 32	< 0.1	Flam. Liq. 3, H226 EUH066
acetic acid substance with a Community workplace exposure limit	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6	< 0.1	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1060 mg/kg bodyweight) Skin Corr. 1A, H314 Eye Dam. 1, H318
propionic acid substance with a Community workplace exposure limit	CAS-No.: 79-09-4 EC-No.: 201-176-3 EC Index-No.: 607-089-00-0	< 0.1	Flam. Liq. 3, H226 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
n-butyl acetate substance with a Community workplace exposure limit	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1	< 0.1	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
isoamyl alcohol substance with a Community workplace exposure limit	CAS-No.: 123-51-3 EC-No.: 204-633-5	< 0.1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
acetic acid	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6	(10 ≤C < 25) Skin Irrit. 2, H315 (10 ≤C < 25) Eye Irrit. 2, H319 (25 ≤C < 90) Skin Corr. 1B, H314 (90 ≤C ≤ 100) Skin Corr. 1A, H314
propionic acid	CAS-No.: 79-09-4 EC-No.: 201-176-3 EC Index-No.: 607-089-00-0	(10 ≤C < 25) Skin Irrit. 2, H315 (10 ≤C < 25) Eye Irrit. 2, H319 (10 ≤C ≤ 100) STOT SE 3, H335 (25 ≤C ≤ 100) Skin Corr. 1B, H314

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

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.	
5.2. Special hazards arising from the substance	ce or mixture	
Fire hazard	: Highly flammable liquid and vapour.	
Hazardous decomposition products in case of fire	: Toxic fumes may be released.	
5.3. Advice for firefighters		
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.	

SECTION 6: Accidental release measures	
6.1. Personal precautions, protective equipm	nent and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment	and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	

For further information refer to section 13.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including any	incompatibilities
Technical measures	: Ground/bond container and receiving equipment.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

Storage conditions

: Store in a well-ventilated place. Keep cool. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

8.1.1 National occupational exposure and biological limit values		
propionic acid (79-09-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Propionic acid	
IOEL TWA	31 mg/m ³	
IOEL TWA [ppm]	10 ppm	
IOEL STEL	62 mg/m ³	
IOEL STEL [ppm]	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
isoamyl alcohol (123-51-3)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Isoamyl alcohol	
IOEL TWA	18 mg/m ³	
IOEL TWA [ppm]	5 ppm	
IOEL STEL	37 mg/m ³	
IOEL STEL [ppm]	10 ppm	
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831	
n-butyl acetate (123-86-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
	n-Butyl acetate	
EU - Indicative Occupational Exposure Limit (IOEL)	n-Butyl acetate 241 mg/m ³	
EU - Indicative Occupational Exposure Limit (IOEL) Local name		
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA	241 mg/m ³	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm]	241 mg/m ³ 50 ppm	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL	241 mg/m ³ 50 ppm 723 mg/m ³	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL IOEL STEL [ppm]	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL IOEL STEL [ppm] Regulatory reference	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL IOEL STEL [ppm] Regulatory reference acetic acid (64-19-7)	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL IOEL STEL [ppm] Regulatory reference acetic acid (64-19-7) EU - Indicative Occupational Exposure Limit (IOEL)	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm COMMISSION DIRECTIVE (EU) 2019/1831	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA IOEL STEL IOEL STEL IOEL STEL [ppm] Regulatory reference acetic acid (64-19-7) EU - Indicative Occupational Exposure Limit (IOEL) Local name	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm COMMISSION DIRECTIVE (EU) 2019/1831	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm] IOEL STEL IOEL STEL [ppm] Regulatory reference acetic acid (64-19-7) EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm COMMISSION DIRECTIVE (EU) 2019/1831 Acetic acid 25 mg/m ³	
EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA IOEL STEL IOEL STEL [ppm] Regulatory reference acetic acid (64-19-7) EU - Indicative Occupational Exposure Limit (IOEL) Local name IOEL TWA IOEL TWA [ppm]	241 mg/m ³ 50 ppm 723 mg/m ³ 150 ppm COMMISSION DIRECTIVE (EU) 2019/1831 Acetic acid 25 mg/m ³ 10 ppm	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

ethyl acetate (141-78-6)			
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	Ethyl acetate		
IOEL TWA	734 mg/m ³		
IOEL TWA [ppm]	200 ppm		
IOEL STEL	1468 mg/m ³		
IOEL STEL [ppm]	400 ppm		
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164		
isopentyl acetate (123-92-2)	isopentyl acetate (123-92-2)		
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	Isopentylacetate		
IOEL TWA	270 mg/m ³		
IOEL TWA [ppm]	50 ppm		
IOEL STEL	540 mg/m ³		
	100 nnm		
IOEL STEL [ppm]	100 ppm		

8.1.2. Recommended monitoring procedures No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection: Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Colour	: brown.	
Odour	: Characteristic.	
Odour threshold	: Not available	
Melting point	: Not applicable	
Freezing point	: Not available	
Boiling point	: > 35 ℃	
Flammability	: Highly flammable liquid and vapour.	
Explosive limits	: Not available	
Lower explosion limit	: Not available	
Upper explosion limit	: Not available	
Flash point	: < 20 °C	
Auto-ignition temperature	: Not available	
Decomposition temperature	: Not available	
рН	: Not available	
Viscosity, kinematic	: Not available	
Solubility	: soluble in water.	
Partition coefficient n-octanol/water (Log Kow)	: Not available	
Vapour pressure	: Not available	
Vapour pressure at 50°C	: Not available	
Density	: Not available	
Relative density	: 1.22 (1.17 – 1.27)	
Relative vapour density at 20°C	: Not available	
Particle characteristics	: Not applicable	
9.2. Other information		

9.2.1. Information with regard to physical hazard classes No additional information available

9.2.2. Other safety characteristics No additional information available

SECTION 10: Stability and reactivity 10.1. Reactivity Highly flammable liquid and vapour. 10.2. Chemical stability Stable under normal conditions.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological informati	ion
11.1. Information on hazard classes as	defined in Regulation (EC) No 1272/2008
Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
propionic acid (79-09-4)	
LD50 oral rat	3455.1 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2978,9 - 4007,5
LD50 dermal rat	3235 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	3235 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 20 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Vapours)	> 20 mg/l Source: ECHA
ATE CLP (oral)	3455.1 mg/kg bodyweight
ATE CLP (dermal)	3235 mg/kg bodyweight
isoamyl alcohol (123-51-3)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	≈ 3216 mg/kg bodyweight Animal: rabbit, Animal sex: male, 95% CL: 2373 - 4350
LC50 Inhalation - Rat (Vapours)	10 mg/l Source: ECHA
ATE CLP (gases)	4500 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1.5 mg/l/4h
n-butyl acetate (123-86-4)	
LD50 oral rat	3200 ml/kg Source: ECHA
LD50 dermal rabbit	> 17600 mg/kg Source: ECHA
LC50 Inhalation - Rat (Vapours)	1802 mg/l Source: ECHA
ethanol; ethyl alcohol (64-17-5)	
LD50 oral rat	15010 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 14450 - 15560
LD50 oral	8300 mg/kg bodyweight Animal: mouse
ATE CLP (oral)	8300 mg/kg bodyweight
acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg bodyweight Animal: rat

Safety Data Sheet

acetic acid (64-19-7)	
LD50 oral	4960 mg/kg bodyweight Animal: mouse
LD50 dermal rabbit	1060 mg/kg Source: HSDB, NITE
LC50 Inhalation - Rat [ppm]	16000 ppm Source: ChemIDPlus
ATE CLP (oral)	3310 mg/kg bodyweight
ATE CLP (dermal)	1060 mg/kg bodyweight
ATE CLP (gases)	16000 ppmv/4h
ethyl acetate (141-78-6)	
LD50 oral rat	11.3 ml/kg Source: ECHA
LD50 oral	4934 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 20000 mg/kg bodyweight Animal: rabbit, Animal sex: male
ATE CLP (oral)	4934 mg/kg bodyweight
isopentyl acetate (123-92-2)	
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
n-butyl acetate (123-86-4)	
рН	6.2 Temp.: 20 °C Concentration: (≈)5 g/L
acetic acid (64-19-7)	
рН	2.4 Source: ECHA
Serious eye damage/irritation	: Causes serious eye irritation.
n-butyl acetate (123-86-4)	
рН	6.2 Temp.: 20 °C Concentration: (≈)5 g/L
acetic acid (64-19-7)	
рН	2.4 Source: ECHA
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
ethanol; ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
propionic acid (79-09-4)	
STOT-single exposure	May cause respiratory irritation.
isoamyl alcohol (123-51-3)	
STOT-single exposure	May cause respiratory irritation.
n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.

Safety Data Sheet

ethyl acetate (141-78-6)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
isoamyl alcohol (123-51-3)	
NOAEL (oral, rat, 90 days)	1250 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
ethanol; ethyl alcohol (64-17-5)	
LOAEL (oral, rat, 90 days)	3200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	1730 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Remarks on results: other:
NOAEL (subchronic, oral, animal/male, 90 days)	< 9700 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
NOAEL (subchronic, oral, animal/female, 90 days)	 > 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
acetic acid (64-19-7)	
NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male
ethyl acetate (141-78-6)	
LOAEL (oral, rat, 90 days)	3600 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test)
NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test)
isopentyl acetate (123-92-2)	
NOAEL (subchronic, oral, animal/female, 90 days)	443.07 mg/kg bodyweight Animal: , Animal sex: female
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
isoamyl alcohol (123-51-3)	
Viscosity, kinematic	5.32 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)'
n-butyl acetate (123-86-4)	
Viscosity, kinematic	0.83 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)'
ethanol; ethyl alcohol (64-17-5)	
Viscosity, kinematic	1.488 mm²/s
acetic acid (64-19-7)	
Viscosity, kinematic	1.015 mm²/s
isopentyl acetate (123-92-2)	
Viscosity, kinematic	1.176 mm²/s
11.2. Information on other hazards	
No additional information available	

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general :	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Safety Data Sheet

Hazardous to the aquatic environment, short– erm (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long– erm (chronic)	: Not classified (Based on available data, the classification criteria are not met)
Not rapidly degradable	
propionic acid (79-09-4)	
LC50 - Fish [1]	> 10000 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 500 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
isoamyl alcohol (123-51-3)	
LC50 - Fish [1]	700 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	255 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 500 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	493 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	274 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [2]	181 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
n-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
EC50 - Other aquatic organisms [1]	32 mg/l Test organisms (species): Artemia salina
EC50 72h - Algae [1]	674.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
ethanol; ethyl alcohol (64-17-5)	
LC50 - Fish [1]	14.2 g/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	≈ 22000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	275 mg/l Source: ECHA
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'
acetic acid (64-19-7)	
LC50 - Fish [1]	> 1000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	> 300.82 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 1000 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	> 300.82 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Skeletonema costatum

Safety Data Sheet

acetic acid (64-19-7)	
EC50 72h - Algae [2]	> 300.82 mg/l Test organisms (species): Skeletonema costatum
ethyl acetate (141-78-6)	
LC50 - Fish [1]	230 mg/l Test organisms (species): Pimephales promelas
NOEC (chronic)	2.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
isopentyl acetate (123-92-2)	
LC50 - Fish [1]	22 – 46 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	42 mg/l Test organisms (species): other:Daphnia magna STRAUS
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
propionic acid (79-09-4)	
Partition coefficient n-octanol/water (Log Pow)	0.33 Source: HSDB
isoamyl alcohol (123-51-3)	
Partition coefficient n-octanol/water (Log Pow)	1.16 Source: HSDB
n-butyl acetate (123-86-4)	
Partition coefficient n-octanol/water (Log Pow)	1.78 Source: HSDB
ethanol; ethyl alcohol (64-17-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.32 Source: ICSC
acetic acid (64-19-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.17 Source: ECHA
ethyl acetate (141-78-6)	
Partition coefficient n-octanol/water (Log Pow)	0.73 Source: ICSC
isopentyl acetate (123-92-2)	
Partition coefficient n-octanol/water (Log Pow)	2.13 Source: ICSC
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Endocrine disrupting properties	
No additional information available	
12.7. Other adverse effects	
No additional information available	
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	

13.1. Waste treatment methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.
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SECTION 14: Transport information	
In accordance with ADR / IMDG / IATA	

Safety Data Sheet

ADR	IMDG		IATA
14.1. UN number or ID num	ber		
UN 1197	UN 1197		UN 1197
14.2. UN proper shipping na			
		-	
EXTRACTS, LIQUID EX	XTRACTS, FLAVOURII LIQUID	NG,	Extracts, liquid
Transport document descriptio	on		
UN 1197 EXTRACTS, LIQUID, 3, II, (D/E) FL	UN 1197 EXTRACTS AVOURING, LIQUID,		UN 1197 Extracts, liquid, 3, II
14.3. Transport hazard class	s(es)		
3	3		3
14.4. Packing group			
II	Ш		II
14.5. Environmental hazard	S	1	
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: N	0	Dangerous for the environment: No
No supplementary information	available		
14.6. Special precautions for	user		
Overland transport			
Classification code (ADR)		: F1	
Special provisions (ADR)		: 601, 640C	
Limited quantities (ADR)		: 51	
Excepted quantities (ADR)		: E2	
Packing instructions (ADR)		: P001	
Mixed packing provisions (ADR)		: MP19	
Portable tank and bulk container (ADR)	r instructions	: T4	
Portable tank and bulk contained provisions (ADR)	r special	: TP1, TP8	
Tank code (ADR)		: L1.5BN	
Vehicle for tank carriage		: FL	
Fransport category (ADR)		: 2	
	Operation (ADR)	: S2, S20	
Special provisions for carriage - (emler No.)	: 33	
	emler No.)	³³ 33 1197	
Special provisions for carriage - (Hazard identification number (Ke		33	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

Transport by sea	
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP8
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Usually consist of alcoholic solutions. Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List) Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information		
Abbreviations and acro	pnyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006

Abbreviations and acro	onyms:
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.