

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING *

1.1. Product identifier

Product name : AVERY DENNISON ADHESIVE REMOVER
 Product code : 09202020, CA6970001
 UFI : A7NE-V3D7-C512-SR6R

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

Application : SU22 Professional use. For industrial or institutional use. PC35 Cleaning agent. Other cleaning, care and maintenance products (excludes biocidal products).

1.3. Details of the supplier of the safety data sheet

Supplier : Avery Dennison Graphics Solutions
 Willem Einthovenstraat 11
 2342 BH Oegstgeest, The Netherlands
 Telephone : +31-85000 2000
 E-mail : gs.msds@eu.averydennison.com
 Website : www.graphics.averydennison.eu

1.4. Emergency telephone number

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:
 NL - Telephone : +31-85000 2000 (24/7)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):
 National Poisons Information Service +44 344 892 0111 (24/7)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification (1272/2008/EC) : Flammable liquid, category 3. Skin irritation, category 2. Eye irritation, category 2. Skin sensitization, category 1. Aspiration hazard, category 1. Specific target organ toxicity after single exposure, category 3. Hazardous to the aquatic environment — Acute category 1. Hazardous to the aquatic environment — Chronic category 1.

Human health hazards : May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness.

Physical/chemical hazards : Flammable.

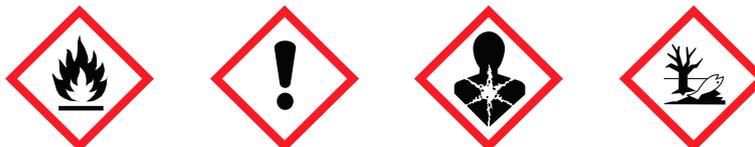
Environmental hazards : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other information : Do not breathe spray. Use only in well-ventilated areas.

2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Danger

H- and P-phrases : H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280 hands eyes	Wear protective gloves and eye protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P370+P378 alc resist	In case of fire: Use carbondioxide (CO2), alcohol resistant foam, dry chemical or water fog to extinguish.
P391	Collect spillage.

Additional labelling (for all packaging sizes)

- : Contains: d-Limonene ; 1-Methoxy-2-propanol ; Propan-2-ol ; Linalool .
- : 67 per cent of the mixture consists of component(s) of unknown acute inhalation toxicity.

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

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3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
d-Limonene	50 - 75	5989-27-5	227-813-5		01-2119529223-47
1-Methoxy-2-propanol	10 - < 20	107-98-2	203-539-1		01-2119457435-35
Propan-2-ol	10 - < 20	67-63-0	200-661-7		01-2119457558-25
2-Butoxyethanol	1 - < 5	111-76-2	203-905-0		01-2119475108-36
Linalool	0,1 - < 1	78-70-6	201-134-4		

Substance name	Hazard Class	H-phrases	Pictograms	
d-Limonene	Aquatic Acute 1; Aquatic Chronic 1; Asp. Tox. 1; Flam. Liq. 3; Skin Irrit. 2; Skin Sens. 1B	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1
1-Methoxy-2-propanol	Flam. Liq. 3; STOT SE 3	H226; H336	GHS02; GHS07	
Propan-2-ol	Eye Irrit. 2; Flam. Liq. 2; STOT SE 3	H225; H319; H336	GHS02; GHS07	
2-Butoxyethanol	Acute Tox. 4; Eye Irrit. 2; Skin Irrit. 2	H302; H315; H319; H332	GHS07	
Linalool	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	H315; H317; H319	GHS07	

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

SECTION 4 FIRST-AID MEASURES ***4.1. Description of first aid measures**

First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water. Remove contact lenses. Consult a doctor.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. As necessary give 1 or 2 soupspoons of laxative (sodium sulphate). Never give anything by mouth to an unconscious person. Consult a doctor immediately if victim feels unwell.

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

Effects and symptoms

- Inhalation : May cause headache, drowsiness, dizziness and a feeling of sickness. May cause irritation to respiratory airways and coughing.
- Skin contact : Irritant. May cause redness and irritation, sensitisation. May produce an allergic reaction. May cause dry skin.
- Eye contact : Irritant. May cause redness and pain.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea. May cause lung damage, sore throat and lack of breath.

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

- Note to physicians : None known.

SECTION 5 FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Extinguishing media

- Suitable : Carbon dioxide (CO₂). Alcohol resistant foam. Dry chemical. Water fog.
- Not suitable : Water jet.

5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : Will float on water and can be reignited. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

5.3. Advice for firefighters

- Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

SECTION 6 ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Keep away from sources of ignition — No smoking. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

6.2. Environmental precautions

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.

Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

6.4. Reference to other sections

Reference to other sections : See also section 8.

SECTION 7 HANDLING AND STORAGE
7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Do not breathe spray. Do not breathe vapour. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a cool, dry and well-ventilated place (< 35 °C). Protect from sunlight. Keep away from oxidizing agents. Keep away from food, drink and animal feedingstuffs.

Recommended packaging : Keep only in the original container.

Non recommended packaging : Steel (except stainless steel). PE and PP.

7.3. Specific end use(s)

Use : Use only as directed. Do not mix with other products.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

 Workplace exposure limits (mg/m³):

Chemical name	Country	TWA 8 hour (mg/m ³)	STEL 15 min (mg/m ³)	Comments	Source
1-Methoxy-2-propanol	GB	375	560	Skin	
1-Methoxy-2-propanol	EC	375	568	Skin	
Propan-2-ol	GB	999	1250	-	
2-Butoxyethanol	EC	100	246	Skin	
2-Butoxyethanol	GB	123	246	Skin; BMGV	

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
d-Limonene	Inhalation				66,7 mg/m ³
1-Methoxy-2-propanol	Dermal				9,5 mg/kg bw/day
	Inhalation	553,5 mg/m ³			369 mg/m ³
Propan-2-ol	Dermal				50,6 mg/kg bw/day
	Inhalation				888 mg/kg bw/day
2-Butoxyethanol	Dermal				500 mg/m ³
	Inhalation	246 mg/m ³	1091 mg/m ³		98 mg/m ³
Linalool	Dermal		89 mg/kg bw		125 mg/kg bw/day
	Inhalation		16,5 mg/m ³		2,8 mg/m ³
	Dermal	3 mg/kg bw	5 mg/kg bw	3 mg/kg bw/day	2,5 mg/kg bw/day

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
d-Limonene	Inhalation				16,6 mg/m ³
1-Methoxy-2-propanol	Dermal				4,8 mg/kg bw/day
	Oral				4,8 mg/kg bw/day
Propan-2-ol	Oral				3,3 mg/kg bw/day
	Inhalation				43,9 mg/m ³
2-Butoxyethanol	Dermal				18,1 mg/kg bw/day
	Inhalation				319 mg/kg bw/day
Linalool	Dermal		89 mg/kg bw		89 mg/m ³
	Oral				26 mg/kg bw/day
1-Methoxy-2-propanol	Dermal	147 mg/m ³	426 mg/m ³		75 mg/kg bw/day
	Inhalation		26,7 mg/kg bw		59 mg/m ³
2-Butoxyethanol	Oral				6,3 mg/kg bw/day
	Dermal	1,5 mg/kg bw	2,5 mg/kg bw	15 mg/kg bw/day	1,25 mg/kg bw/day
Linalool	Inhalation		4,1 mg/m ³		0,7 mg/m ³
	Oral		1,2 mg/kg bw		0,2 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
d-Limonene	Water	0.014 mg/l	0.0014 mg/l	
	Sediment	3.85 mg/kg	0.385 mg/kg	
	STP			1,8 mg/l
	Soil			0.763 mg/kg
1-Methoxy-2-propanol	Oral			133 mg/kg food
	Water	10 mg/l	1 mg/l	
	Sediment	52,3 mg/kg	5,2 mg/kg	
	Intermittent water			100 mg/l
Propan-2-ol	STP			100 mg/l
	Soil			5,49 mg/kg
	Water	140,9 mg/l	140,9 mg/l	
	Sediment	552 mg/kg	552 mg/kg	
2-Butoxyethanol	Intermittent water			140,9 mg/l
	STP			2251 mg/l
	Soil			28 mg/kg
	Oral			160 mg/kg food
2-Butoxyethanol	Water	8.8 mg/l	0.88 mg/l	
	Sediment	34.6 mg/kg	3.46 mg/kg	
	Intermittent water			9,1 mg/l
	STP			463 mg/l

Linalool	Soil			2,33 mg/kg
	Oral			0,02 mg/kg food
	Water	0,2 mg/l	0,02 mg/l	
	Sediment	2,22 mg/kg	0,222 mg/kg	
	Intermittent water			2 mg/l
	STP			10 mg/l
	Soil			0,327 mg/kg
	Oral			7,8 mg/kg food

8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.



- Body protection : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: nitril. Indication of permeation breakthrough time: 6 hours.
- Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type AK (brown/green), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.
- Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166, when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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9.1. Information on basic physical and chemical properties

Physical state	: Liquid.	
Colour	: Colourless.	
Odour	: Characteristic.	
Odour threshold	: Not known.	
pH	: Not applicable.	Almost waterfree product.
Solubility in water	: Not soluble.	
Partition coefficient (n-octanol/water)	: Not known.	Not measured. Not relevant for mixtures.
Flash point	: 24 °C	Closed cup.
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 230 °C	
Boiling point/boiling range	: 82 °C	
Melting point/melting range	: < -20 °C	
Explosive properties	: Not an explosive.	
Explosion limits (% in air)	: Not known.	Lower explosion limit in air (%): 0,7 (d-Limonene) Upper explosion limit in air (%): 13,74 (1-Methoxy-2-propanol)
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: 1 mm ² /sec	(1 mm ² /sec = 1cSt)

Viscosity (40°C) : < 20,5 mm²/sec
Vapour pressure (20°C) : > 2300 Pa
Relative vapour density : > 1 (air = 1)
Relative density (20°C) : 0,8 g/ml
Particle characteristics : Not applicable.

9.2. Other information

Other information : Not relevant.

SECTION 10 STABILITY AND REACTIVITY**10.1. Reactivity**

Reactivity : See sub-sections below.

10.2. Chemical stability

Stability : Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactivity : No other hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid : See section 7.

10.5. Incompatible materials

Materials to avoid : Keep away from oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

SECTION 11 TOXICOLOGICAL INFORMATION

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

No toxicological research has been carried out on this product.

Inhalation

- Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: 67 %. ATE: > 5 mg/l. Not classified - based on available data, the classification criteria are not met. May cause damage to organs. Target organ(s): Central nervous system. Effect(s): Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.
- Corrosion/irritation : May cause irritation to respiratory airways and coughing. Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met. Does not contain carcinogenic substances.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Skin contact

Acute toxicity : Calculated LD50: > 2190 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.

Corrosion/irritation : Irritant. May cause redness. Prolonged contact may dry out and defat the skin.

Sensitisation : May cause sensitisation by skin contact. May produce an allergic reaction.

Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact

Corrosion/irritation : Irritant.

Ingestion

Acute toxicity : Calculated LD50: > 4423 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.

Aspiration : Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. If swallowed, if any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 38.3° C, shortness of breath, chest congestion or continued coughing or wheezing.

Corrosion/irritation : May cause a feeling of sickness, stomachache, vomiting and diarrhoea.

Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.

Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Reprotoxicity : Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

Toxicological information:

Chemical name	Property		Method	Test animal
d-Limonene	Genotoxicity - in vivo	> 2000 mg/kg bw/d		Rat
	NOEL (carcinogenicity, oral)	> 300 mg/kg bw/d	OECD 451	Rat
	Eye irritation	Non-irritant	OECD 405	Rabbit
	Mutagenicity	Negative	OECD 471	
	Skin sensitisation	10075 ug/cm2	OECD 429	Mouse
	NOAEL (development, oral)	600 mg/kg bw/d		Rat
	Skin irritation	Irritant	-----	-----
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit
	LD50 (oral)	4400 mg/kg bw	-----	Rat
	Genotoxicity - in vitro	Not genotoxic		
1-Methoxy-2-propanol	NOAEL (oral)	150 mg/kg bw/d		Rat
	LC50 (inhalation)	> 26315 mg/m3	OECD 403	Rat
	Eye irritation	Mildly irritant	OECD 405	Rabbit
	NOAEL (oral)	919 mg/kg bw/d	OECD 407	Rat
	NOEL (inhalation)	300 mg/m3	OECD 453	Rat
	NOAEL (dermal)	> 1000 mg/kg bw/d	OECD 410	Rabbit
	LD50 (oral)	3739 mg/kg bw	OECD 401	Rat
	Skin irritation	Non-irritant	OECD 404	Rabbit
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	NOEL (carcinogenicity, inh.)	11278 mg/m3	OECD 453	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin sensitisation	Not sensitizing	-----	Guinea pig
	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	NOAEL (fertility, inh.)	1128 mg/m3	OECD 416	Rat
NOAEL (developmental toxicity, inh.)	> 11278 mg/m3	OECD 414	Rat	

Propan-2-ol	LD50 (oral)	5840 mg/kg bw	OECD 401	Rat	
	LD50 (dermal)	12800 mg/kg bw	-----	Rat	
	LC50 (inhalation)	46600 mg/m3	-----	Rat	
	Skin irritation	Slightly irritant	OECD 404	Rabbit	
	Eye irritation	Irritant	OECD 405	Rabbit	
	NOAEL (fertility, oral)	853 mg/kg bw/d	OECD 415	Rat	
	NOAEL (development, oral)	596 mg/kg bw/d	OECD 414	Rat	
	NOEL (carcinogenicity, oral)	Not carcinogenic	OECD 416	Rat	
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig	
	Mutagenicity	Negative	OECD 471		
	NOAEL (inhalation)	12500 mg/m3	OECD 451	Rat	
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse	
	NOEL (carcinogenicity, inh.)	12500 mg/m3		Mouse	
	Genotoxicity - in vitro	Not genotoxic	OECD 476		
	NOAEL (oral)	870 mg/kg bw/d	-----	Rat	
	Skin irritation - estimate				
	2-Butoxyethanol	Eye irritation	Irritant	OECD 405	Rabbit
LC50 (inhalation)		2200 mg/m3	OECD 403	Rat	
LD50 (dermal)		435 mg/kg bw	OECD 402	Rabbit	
NOAEL (inhalation)		152 mg/m3	OECD 413	Rat	
NOAEL (fertility, oral)		720 mg/kg bw/d			
Genotoxicity - in vitro		Not genotoxic			
NOEL (carcinogenicity, oral)		Not carcinogenic			
LD50 (oral)		1746 mg/kg bw	OECD 401	Rat	
NOAEL (dermal)		> 150 mg/kg bw/d	OECD 411	Rabbit	
Genotoxicity - in vivo		Not genotoxic	OECD 474	Mouse	
Mutagenicity		Negative	OECD 471	Salmonella typhimurium	
NOAEL (development, oral)		> 100 mg/kg bw/d	OECD 414	Rat	
Skin irritation		Irritant	OECD 404	Rabbit	
NOAEL (oral)		< 69	OECD 408	Rat	
Skin sensitisation		Not sensitizing	OECD 406	Guinea pig	
Linalool		LD50 (oral) - estimate	1500 mg/kg bw		
		NOAEL (development, oral)	365 mg/kg bw/d	-----	Rat
	Eye irritation	Non-irritant	OECD 405	Rabbit	
	Skin sensitisation	12650 ug/cm2	OECD 429	Mouse	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium	
	NOAEL (fertility, oral)	500 mg/kg bw/d		Rat	
	Skin irritation	Irritant	OECD 404	Rabbit	
	NOAEL (dermal)	250 mg/kg bw/d	OECD 411	Rat	
	Genotoxicity - in vivo	Not genotoxic	OECD 475	Mouse	
	LD50 (dermal)	5610 mg/kg bw	-----	Rabbit	
	Skin irritation	Mildly irritant	-----	Human	
	LD50 (oral)	2790 mg/kg bw	-----	Rat	
	NOAEL (oral)	117 mg/kg bw/d	-----	Rat	

11.2. Information on other hazards

Endocrine disrupting properties : Not applicable.
 Other information : Not applicable.

SECTION 12 ECOLOGICAL INFORMATION

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12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Very toxic to aquatic organisms. Calculated LC50 (fish): 1 mg/l. Calculated EC50 (waterflea): < 1 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence – degradability : May cause long-term adverse effects in the aquatic environment.

12.3. Bioaccumulative potential

Bioaccumulative potential : No specific information known.

12.4. Mobility in soil

Mobility : Adsorbs to soil and has low mobility. Floats on water.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

12.6. Endocrine disrupting properties

Endocrine disrupting properties : Not applicable.

12.7. Other adverse effects

Other adverse effects : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
d-Limonene	LC50 (fish)	0,720 mg/l	OECD 203	Pimephales promelas
	EC50 (waterflea)	0,36 mg/l	OECD 202	Daphnia magna
	Ultimate aerobic biodegradation (%)	> 92 %		
	NOEC (waterflea) - chronic	0,15 mg/l.d		Daphnia magna
d-Limonene	IC50 (algae)	-----		
	Log P(ow)	4,38		

SECTION 13 DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods

Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.

Additional warning : Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.

Waste water discharge : Do not dispose into the environment, in drains or in water courses.

European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.

Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14 TRANSPORT INFORMATION**14.1. UN number or ID number**

UN nr. : UN 1993

14.2. UN proper shipping nameTransport name : FLAMMABLE LIQUID, N.O.S. (d-Limonene ; Propan-2-ol)
Transport name (IMDG, IATA) : FLAMMABLE LIQUID, N.O.S. (d-Limonene ; Propan-2-ol)**14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards**

ADR/RID/ADN (road/railway/inland waterways)

Class : 3
Classification code : F1
Packaging group : III
Danger label : 3 + the "environmentally hazardous substance" mark.
Tunnel restriction code : D/E

Other information : Not intended for carriage by tank-vessels on inland waterways. Packagings with a quantity of 5 l or less for liquids or 5 kg, or less for solids need not be marked with the environmentally hazardous substance mark.

IMDG (sea)

Class : 3
Packaging group : III
EmS (fire / spill) : F - E / S - E
Marine pollutant : Yes
Other information : Packagings with a quantity of 5 l or less for liquids or 5 kg, or less for solids need not be marked with the environmentally hazardous substance mark.

IATA (air)

Class : 3

14.6. Special precautions for user

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

14.7. Maritime transport in bulk according to IMO instruments

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

SECTION 15 REGULATORY INFORMATION

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

Community regulations : Regulation (EU) No 2020/878 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

Ingredient declaration according to Regulation EC 648/2004:

Contains:	Concentration (%)
Aliphatic hydrocarbons	> 30
Limonene, Linalool.	

15.2. Chemical safety assessment

Chemical safety assessment : Not applicable.

SECTION 16 OTHER INFORMATION *

16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2020/878 dated 18 June 2020 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	: Acute Toxicity Estimate
CLP	: Classification, Labeling & Packaging
CMR	: Carcinogenic, Mutagenic or toxic for Reproduction
EEC	: European Economic Community
GHS	: Globally Harmonized System of Classification and Labelling of Chemicals
IATA	: International Air Transport Association
IBC code	: International Bulk Chemical Code
IMDG	: International Maritime Dangerous Goods Code
LD50/LC50	: Lethal Dose/Concentration for 50% of a population
MAC	: Maximum Allowable Concentration
MARPOL	: International Convention for the Prevention of Pollution From Ships
NO(A)EL	: No Observed (Adverse) Effect Level
OECD	: Organisation for Economic Co-operation and Development
PBT	: Persistent, Bioaccumulative and Toxic
PC	: Chemical product category
PT	: Product type
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
SU	: Sector of Use
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
UFI	: Unique formula identifier
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative

Key data used to compile the Safety Data Sheet are from, but not limited to, one or more sources of information e.g. toxicological data from material suppliers, CONCAWE, IFRA, CESIO, Regulation EG 1272/2008, etc.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

Flam. Liq. 3 : On basis of test data.
Skin Irrit. 2 : Calculation method.
Eye Irrit. 2 : Calculation method.
Skin Sens. 1/1A/1B : Calculation method.
STOT SE 3 : Calculation method.
Asp. Tox. 1 : On basis of test data. Calculation method. Expert judgement.
Aquatic Chronic 1 : Calculation method.
Aquatic Acute 1 : Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 2 : Flammable liquid, category 2.
Flam. Liq. 3 : Flammable liquid, category 3.
Acute Tox. 4 : Acute toxicity, category 4.
Skin Irrit. 2 : Skin irritation, category 2.
Eye Irrit. 2 : Eye irritation, category 2.
Skin Sens. 1/1A/1B : Skin sensitization, category 1/1A/1B.
STOT SE 3 : Specific target organ toxicity after single exposure, category 3.
Asp. Tox. 1 : Aspiration hazard, category 1.
Aquatic Chronic 1 : Hazardous to the aquatic environment — Chronic category 1.
Aquatic Acute 1 : Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H336 : May cause drowsiness or dizziness.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Advice on any training appropriate for workers: none.

Number format : "," used as decimal separator.

End of safety data sheet.

Print date : 2021-02-05