# SAFETY DATA SHEET
According to Regulation (EU) No 2020/878

## 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 *

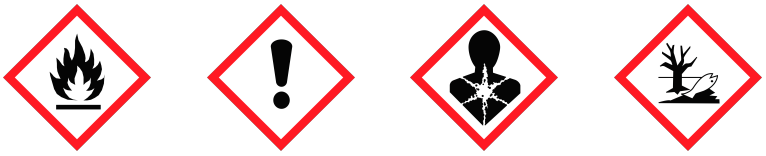
### 2.1. Classification of the substance or mixture

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 3.

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. Harmful to aquatic life with long lasting effects.
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. |
| P370+P378 alc resist | In case of fire: Use carbondioxide (CO2), alcohol resistant foam, dry chemical or water fog to extinguish. |
| P280 hands eyes | Wear protective gloves and eye protection. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P331 | Do NOT induce vomiting. |
| P273 | Avoid release to the environment. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container to an official chemical waste depot. |

Additional labelling (for all packaging sizes)

: Contains: d-Limonene ; 1-Methoxy-2-propanol ; Propan-2-ol ; Linalool .

: 70 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.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS *

### 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 | Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 3 | H226; H304; H315; H317; H400; H412 | GHS02; GHS07; GHS08; GHS09 | M (acute) = 1 |
| 1-Methoxy-2-propanol | Flam. Liq. 3; STOT SE 3 | H226; H336 | GHS02; GHS07 | |
| Propan-2-ol | Flam. Liq. 2; Eye Irrit. 2; STOT SE 3 | H225; H319; H336 | GHS02; GHS07 | |
| 2-Butoxyethanol | Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2 | H302; H331; H315; H319 | GHS06; GHS07 | |
| Linalool | Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2 | 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. |
| 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. |

### 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 | : | Carbondioxide (CO2). Alcohol resistant foam. Dry chemical. Water fog. |
| Not suitable | : | Water jet. Use of heavy stream of water may spread fire. |

### 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 frost-free, 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 *

### 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/m3) | STEL 15 min (mg/m3) | Comments | Source |
|---|---|---|---|---|---|
| d-Limonene | | 28 | 80 | | MAC: DE, CH |
| 1-Methoxy-2-propanol | GB | 375 | 560 | Skin | |
| | EC | 375 | 568 | Skin | Directive 2000/39/EC |
| Propan-2-ol | GB | 999 | 1250 | - | |
| 2-Butoxyethanol | EC | 98 | 246 | Skin | Directive 2000/39/EC |
| | GB | 123 | 246 | Skin | BMGV |

Biological limit values (BMGV):

| Substance | Country | Determinant | BMG-value | Specimen/Sampling Time/Remarks |
|---|---|---|---|---|
| | | | None known. | |

Abbreviations BMG-list : B = Blood. U = Urine. b = At the end of the period of exposure. d = pre-shift.
Source : EH40/2005 (Fourth edition, 2020).

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/m3 |
| | Dermal | | | | 9,5 mg/kg bw/day |
| 1-Methoxy-2-propanol | Inhalation | 553,5 mg/m3 | | | 369 mg/m3 |
| | Dermal | | | | 50,6 mg/kg bw/day |
| Propan-2-ol | Dermal | | | | 888 mg/kg bw/day |
| | Inhalation | | | | 500 mg/m3 |
| 2-Butoxyethanol | Inhalation | 246 mg/m3 | | | 98 mg/m3 |
| Linalool | Inhalation | | | | 24.58 mg/m3 |
| | Dermal | 3 mg/kg bw | | 3 mg/kg bw/day | 3.5 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/m3 |
| | Dermal | | | | 4,8 mg/kg bw/day |
| | Oral | | | | 4,8 mg/kg bw/day |
| 1-Methoxy-2-propanol | Oral | | | | 3,3 mg/kg bw/day |
| | Inhalation | | | | 43,9 mg/m3 |
| | Dermal | | | | 18,1 mg/kg bw/day |
| Propan-2-ol | Dermal | | | | 319 mg/kg bw/day |
| | Inhalation | | | | 89 mg/m3 |
| | Oral | | | | 26 mg/kg bw/day |
| 2-Butoxyethanol | Inhalation | 147 mg/m3 | | | 59 mg/m3 |
| | Oral | | 26.7 mg/kg bw | | 6.3 mg/kg bw/day |
| Linalool | Dermal | 1.5 mg/kg bw | | 1.5 mg/kg bw/day | 1.25 mg/kg bw/day |
| | Inhalation | | | | 4.33 mg/m3 |
| | Oral | | | | 2.49 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 |
| | Oral | | | 133 mg/kg food |
| 1-Methoxy-2-propanol | Water | 10 mg/l | 1 mg/l | |
| | Sediment | 52,3 mg/kg | 5,2 mg/kg | |
| | Intermittent water | | | 100 mg/l |
| | STP | | | 100 mg/l |
| | Soil | | | 5,49 mg/kg |
| Propan-2-ol | Water | 140,9 mg/l | 140,9 mg/l | |
| | Sediment | 552 mg/kg | 552 mg/kg | |
| | 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 |
| | Soil | | | 2.33 mg/kg |
| | Oral | | | 0.02 mg/kg food |
| Linalool | 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 *

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : Liquid. | |
| Colour | : Colourless. | |
| Odour | : Characteristic. | |
| Odour threshold | : Not known. | Not measured. Not relevant. |
| 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 mm2/sec | (1 mm2/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. | Liquid. |

### 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 *

### 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: 70 %. 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: > 2135 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: > 2381 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 | 5500 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) | > 2000 mg/kg bw | OECD 423 | Rat |
| | Genotoxicity - in vitro | Not genotoxic | | |
| | NOAEL (oral) | 150 mg/kg bw/d | | Rat |
| 1-Methoxy-2-propanol | 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 |
| 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 |
| | Skin sensitisation | Not sensitizing | OECD 406 | Guinea pig |
| | LD50 (oral) - estimate | 1200 mg/kg bw | | |
| Linalool | 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 *

### 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.

### 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) | 0,72 mg/l | OECD 203 | Pimephales promelas |
| | EC50 (waterflea) | 0,307 mg/l | OECD 202 | Daphnia magna |
| | Ultimate aerobic biodegradation (%) | 71,4 % | OECD 301 B | |
| | NOEC (waterflea) - chronic | 0,08 mg/l.d | OECD 211 | Daphnia magna |
| | IC50 (algea) | 0,32 mg/l | OECD 201 | Pseudokirchnerella subcapitata |
| | NOEC (fish) | 0,059 mg/l.d | | Pimephales promelas |
| | 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 of into the environment, drains, sewers or 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 name

Transport 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 |
| ERG code | : | 3H |

### 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 *

### 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. Regulation (EC) No 648/2004 (detergents). Directive 2008/98/EC (waste).

VOC-content (EC) : 794 g/l

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 3 | : | 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 3 | : | Hazardous to the aquatic environment — Chronic category 3. |
| 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. |
| H332 | Harmful if inhaled. |
| 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. |
| H400 | Very toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

Advice on any training appropriate for workers: none.

Number format : "," used as decimal separator.

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End of safety data sheet.

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