



Safety Data Sheet according to UN GHS, Regulation (EC) No. 1907/2006 (REACH), Regulation (EU) No. 2020/878 Annex II, Regulation (EC) No. 1272/2008 (CLP) and GB CLP

Whiteboard Ink WB600.11 (All Colours)

Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 1

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

#### 1.1: Product identifier

UFI Code: 5500-Y0CA-600Y-YAAN
Trade name: Whiteboard Ink WB600.11

Substance name: n/a
Index No: n/a
CAS-No: n/a
EC-No: n/a
HS Tariff code: 32159070

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

Use of the substance/mixture: Preparation for use in writing instruments.

Recommended restrictions on use: No information available.

1.3: Details of the suppler of the safety data sheet

Company: Multichem Limited DIPRO di Guido Nicol

Tyne Mills Industrial Estate Via Alessandria 55

Hexham 10152 Northumberland NE46 1XL Torino UK Italy

Telephone: +44 1434 606 085
Fax: +44 1434 601 804
e-mail: mail@multichem.net

## 1.4: Emergency telephone number

+44 7887 612 787

## **SECTION 2: Hazards Identification**

## 2.1: Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 and GB CLP							
Hazard class Hazard category Target organs Hazard statements							
Flammable liquids	2	not applicable	H225				
Serious eye damage/eye irritation	2	eyes	H319				
Aquatic chronic	2	n/a	H411				

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects: Highly flammable liquid and vapour. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 2

#### 2.2: Label Elements

Labelling according to Regulation (EC) No. 1272/2008 and GB CLP

**Hazard Symbols:** 







Signal word: DANGER

Hazard statements: H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

H411 Toxic to aquatic life with long lasting effects

Precautionary statements: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment
P243 Take precautionary measures against static discharge
P280 Wear protective gloves/protective clothing/eye protection

P305/P351/P338 IF IN EYES: rinse cautiously with water for several minutes Remove

contact lenses, if present and easy to do. Continue rinsing

P337/P313 If eye irritation persists: get medical advice/attention

P273 Avoid release to the environment

P403/P235 Store in a well-ventilated place. Keep cool.

## 2.3: Other hazards

No other information available.

## **SECTION 3: Composition / information on ingredients**

#### 3.1: Substances

Not applicable

## 3.2: Mixtures

Substance name	CAS No. EC No. Index No. Registration No.	% (weight)	Classification according to Regulation (EC) No. 1272/2008 (CLP) and GB MCL	SCL, M-factor, ATE
Ethanol (denatured)	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	<70%	H225 (2), H319 (2)	ATE (oral) LD50 1187–15010 mg/kg ATE (inhalation) LC50 (4 h) 115.9-133.8 mg/L air
Propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25	<16%	H225 (2), H319 (2), H336 (3)	ATE (oral) LD50 5 840 mg/kg



Data Sheet No: DS501 Version No: 005
Issue Date: 22<sup>nd</sup> June 2022 Page 3

				ATE (inhalation) LC50 (6 h) 10 000 ppm ATE (dermal) LD50 16.4
				mL/kg
Dioctyl maleate	142-16-5 205-524-5 - 01-2119524002-60	<10%	H373 (2), H410 (1)	M(chronic) = 0  ATE (oral)  LD50 2 000 mg/kg  ATE (inhalation)  LD50
				15 mg/L
2-ethylhexylphosphoric acid (mono, diester)	12645-31-7 235-741-0 -	<0.5%	H314 (1), H318 (1)	ATE (oral) LD50 2 500 mg/kg

For the full text of the H-Statements mentioned in this Section, see Section 16.

## **SECTION 4: Description of first aid measures**

## 4.1: Description of first aid measures

### 4.1.1: General advice:

Take off all contaminated clothing immediately.

## 4.1.2: In case of inhalation:

Remove to fresh air. If symptoms persist, seek medical advice. If unconscious place in recovery position.

## 4.1.3: In case of skin contact:

Wash off with plenty of water. If skin irritation persists, seek medical advice.

## 4.1.4: In case of eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Consult an eye specialist immediately.

## 4.1.5: In case of ingestion:

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

## 4.1.6: Self-protection for first aider:

Wear appropriate PPE to prevent contamination of skin, eyes and personal clothing.

## 4.2: Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

## 4.3: Indication of immediate medical attention and special treatment needed

Treat symptomatically. No further information available.



Data Sheet No: DS501 Version No: 005
Issue Date: 22<sup>nd</sup> June 2022 Page 4

## **SECTION 5: Firefighting measures**

## 5.1: Extinguishing media

## 5.1.1: Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide (do not use carbon dioxide in enclosed spaces).

## 5.1.2: Unsuitable extinguishing media:

High volume water jet.

## 5.2: Special hazards arising from the substance or mixture

Highly flammable. Vapours may form explosive mixtures with air. Flash back possible. In case of fire hazardous decomposition products may be produced, such as carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

## 5.3: Advice for firefighter

## 5.3.1: Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit).

## 5.3.2: Further information:

Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise – with risk of bursting. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### **SECTION 6: Accidental release measures**

## 6.1: Personal precautions, protective equipment and emergency procedures

## 6.1.1: For non-emergency personnel

Protective equipment:

Wear appropriate PPE to prevent contamination of skin, eyes and personal clothing.

Emergency procedures:

Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe vapours. Evacuate the area.

## 6.1.2: For emergency responders

Tight fitting safety goggles, appropriate gloves, and protective clothing (please refer to Section 8).

## 6.2: Environmental precautions

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Do not allow to contaminate ground water system.

## 6.3: Methods and materials for containment and cleaning up

## 6.3.1: For containment

Contain spillage using bunding. Cover drains where possible. Re-cap leaking containers and take whatever steps possible to prevent further leakage.



Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 5

## 6.3.2 - For cleaning up

Collect with non-combustible absorbent material (for example, sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

## 6.3.3 - Other information

Treat recovered material as described in Section 13.

#### 6.4: Reference to other sections

For personal protection see Section 8.

## Section 7: Handling and storage

## 7.1: Precautions for safe handling

#### 7.1.1: Protective measures:

Keep container tightly closed. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breath vapours. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

## 7.1.2: Measures to prevent fire:

Combustible liquid. Keep away from sources of ignition – no smoking. Take measures to prevent the build-up of electrostatic charge. Vapours may form explosive mixtures in air. Use only in an area containing explosion proof equipment.

## 7.1.3: Measures to prevent aerosol and dust generation:

Avoid generating any spray mist. Ensure all equipment is electrically grounded before beginning transfer operations.

## 7.1.4: Measures to protect the environment:

Do not let product enter drains. If the product contaminates rivers and lakes or drains inform respective authorities.

## 7.1.5: Advice on general occupational hygiene:

Keep away from food, drink, and animal feeding stuffs. Smoking, eating, and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the working day. Take off all contaminated clothing.

## 7.2: Conditions for safe storage, including any incompatibilities

## 7.2.1: Technical measures and storage conditions:

Combustible liquid. Keep away from sources of ignition – no smoking. Take measures to prevent the build-up of electrostatic charge. Vapours may form explosive mixtures in air. Use only in an area containing explosion proof equipment.

## 7.2.2: Packaging materials:

Store tightly closed in original container.

## 7.2.3: Requirements for storage rooms and vessels:

Use only in an area containing explosion proof equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Take measures to prevent the build-up of electrostatic charge.





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 6

## 7.2.4 – Further information on storage conditions:

Keep tightly closed in a cool and dry place. Keep away from direct sunlight. Keep in a well-ventilated place. Keep away from food, drink and animal feedstuffs. Do not store together with oxidizing and self-igniting products. Incompatible with strong acids. oxidizing agents and alkaline earth metals.

## 7.3: Specific end use(s)

## 7.3.1: Recommendations:

Preparation for use in writing instruments. Please refer to sections 7.1 and 7.2

## 7.3.2: Industrial sector specific solutions:

No information available.

## **SECTION 8: Exposure controls/personal protection**

## 8.1: Control parameters

SUBSTANCE NAME: Ethanol									
EC number: 20	EC number: 200-578-6 CAS number: 64-17-5								
DNELs	DNELS								
	Workers				Consumers				
Route of	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic	
exposure	effects local	effects	effects local	effects	effects local	effects	effects local	effects	
		systemic		systemic		systemic		systemic	
Oral			Not required			No hazard	No hazard	87 mg/kg	
			Not required			identified	identified	bw/day	
Inhalation	1900 mg/m <sup>3</sup>	No hazard	No hazard	950 mg/m <sup>3</sup>	950 mg/m <sup>3</sup>	No hazard	No hazard	114 mg/m <sup>3</sup>	
		identified	identified			identified	identified		
Dermal	No hazard	No hazard	No hazard	343 mg/kg	No hazard	No hazard	No hazard	206 mg/kg	
	identified	identified	identified	bw/day	identified	identified	identified	bw/day	

PNECs	
Environmental protection target	PNEC
Fresh water	960 μg/L
Freshwater sediments	3.6 mg/kg d.w.
Marine water	790 μg/L
Marine sediments	2.9 mg/kg d.w.
Food chain	380 – 720 mg/kg food
Microorganisms in sewage treatment	580 mg/L
Soil (agricultural)	630 μg/kg d.w.
Air	No hazard identified





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 7

EC number: 2	ber: 200-661-7 CAS number: 67-63-0							
DNELs								
	Workers				Consumers			
Route of	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
exposure	effects local	effects	effects local	effects	effects local	effects	effects local	effects
		systemic		systemic		systemic		systemic
Oral			Not required			No hazard	No hazard	26 mg/kg
			Not required			identified	identified	bw/day
Inhalation	No hazard	No hazard	No hazard	500 mg/m <sup>3</sup>	No hazard	No hazard	No hazard	89 mg/m <sup>3</sup>
	identified	identified	identified		identified	identified	identified	
Dermal	No hazard	No hazard	No hazard	888 mg/kg	No hazard	No hazard	No hazard	206 mg/kg
	identified	identified	identified	bw/day	identified	identified	identified	bw/day

PNECs	
Environmental protection target	PNEC
Fresh water	140.9 mg/L
Freshwater sediments	552 mg/kg d.w.
Marine water	140.9 mg/L
Marine sediments	552 mg/kg d.w.
Food chain	160 mg/kg food
Microorganisms in sewage treatment	2.251 g/L
Soil (agricultural)	28 mg/kg d.w.
Air	No hazard identified

SUBSTANCE NAME: Dioctyl maleate									
EC number: 205-524-5 CAS						number: 142-16-5			
DNELs									
	Workers					Consumers			
Route of	Acute	Acute	Chronic	Chronic		Acute	Acute	Chronic	Chronic
exposure	effects local	effects	effects local	effects		effects local	effects	effects local	effects
		systemic		systemic			systemic		systemic
Oral			Not required				No hazard	No hazard	No hazard
			Not required				identified	identified	identified
Inhalation	No hazard	No hazard	No hazard	7 mg/m <sup>3</sup>		No hazard	No hazard	No hazard	No hazard
	identified	identified	identified			identified	identified	identified	identified
Dermal	No hazard	No hazard	No hazard	2.5 mg/kg	g	No hazard	No hazard	No hazard	No hazard
	identified	identified	identified	bw/day		identified	identified	identified	identified

PNECs	
Environmental protection target	PNEC
Fresh water	1.04 μg/L
Freshwater sediments	15.95 mg/kg d.w.
Marine water	104 ng/L
Marine sediments	1.595 mg/kg d.w.
Food chain	20 mg/kg food
Microorganisms in sewage treatment	100 mg/L
Soil (agricultural)	3.19 mg/kg d.w.
Air	No hazard identified



Data Sheet No: DS501 Version No: 005
Issue Date: 22<sup>nd</sup> June 2022 Page 8

SUBSTANCE	SUBSTANCE NAME: 2-ethylhexylphosphoric acid (mono, diester)								
EC number: 2	235-741-0			CAS n	umber: 12645-3	1-7			
DNELS									
	Workers				Consumers				
Route of	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic	
exposure	effects local	effects	effects local	effects	effects local	effects	effects local	effects	
		systemic		systemic		systemic		systemic	
Oral			Not required			No hazard identified	No hazard identified	6.25 mg/kg bw/day	
Inhalation	Medium hazard (no threshold derived)	No hazard identified	Medium hazard (no threshold derived	36.73 mg/m <sup>3</sup>	Medium hazard (no threshold derived)	No hazard identified	Medium hazard (no threshold derived)	10.87 mg/m <sup>3</sup>	
Dermal	Medium hazard (no threshold derived)	No hazard identified	Medium hazard (no threshold derived)	10.42 mg/kg bw/day	Medium hazard (no threshold derived)	No hazard identified	Medium hazard (no threshold derived)	6.25 mg/kg bw/day	

PNECs	
Environmental protection target	PNEC
Fresh water	49 μg/L
Freshwater sediments	no data available
Marine water	1.5 μg/L
Marine sediments	350 μg/kg d.w.
Food chain	No hazard identified
Microorganisms in sewage treatment	15 mg/L
Soil (agricultural)	23.9 μg/kg d.w.
Air	No hazard identified

## 8.2: Exposure controls

## 8.2.1: Appropriate engineering controls:

Ensure adequate ventilation. Refer to protective measures listed in Sections 7 and 8.

## 8.2.2: Individual protection measures, such as personal protective equipment:

## 8.2.2.1: Eye/face protection:

Tight fitting safety goggles.

## 8.2.2.2: Skin protection:

Hand protection:

Wear suitable gloves. Take note of the information given by the producer concerning permeability and breakthrough times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear. Butyl rubber, 0.5 mm, Fluorocarbon rubber, 0.4 mm.

Other skin protection:

Wear suitable protective clothing.

## 8.2.2.3: Respiratory protection:

Required, if exposure limit is exceeded. Respirator with a gas filter. Recommended filter type: A.





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 9

#### 8.2.2.4: Thermal hazards:

Not applicable.

## 8.2.3: Environmental exposure controls:

Do not let product enter drains. If the product contaminates rivers and lakes or drains inform respective authorities. Refer to section 6 for further information.

## **SECTION 9: Physical and chemical properties**

## 9.1: Information on basic physical and chemical properties

Physical state: liquid Colour: various

Odour: Alcohol-like, odour threshold - no data available

Melting point / freezing point: -114.5°C (ethanol)
Boiling point: 78.3°C (ethanol)
Flammability: Highly flammable

Upper/lower flammability or explosive limits: 15% (V), 3.5% (V) (ethanol)

Flash point: 12°C (propan-2-ol) Auto-ignition temperature: 363°C (ethanol)

Decomposition temperature: Not applicable (only applies to self-reactive substances and

mixtures)

pH: 7 to 10 (100%) Viscosity: 4 to 10 mm<sup>2</sup>/s

Solubility: Partially miscible in water, fully miscible with other solvents

Partition coefficient: n-octanol/water: Not applicable (does not apply to mixtures) Vapour pressure: 57.26 hPa @ 19.6 – 19.65°C (ethanol)

Absolute density: 0.83g/cm<sup>3</sup>

Relative density:  $0.79 - 0.8 @ 20^{\circ}C$  (ethanol)

Particle characteristics: Not applicable (only applies to solids)

#### 9.2 - Other information

Not applicable (the mixture is a flammable liquid, see 9.1)

## **SECTION 10: Stability and reactivity**

## 10.1 - Reactivity

Vapours may cause explosive mixtures with air.

## 10.2 - Chemical Stability

Stable under normal storage conditions.

## 10.3 - Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

## 10.4 - Conditions to avoid

Keep away from heat and sources of ignition (such as flames, sparks, extreme heat and direct sunlight).





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 10

## 10.5 – Incompatible materials

Alkali metals, alkaline earth metals, strong oxidizing agents, strong acids.

## 10.6 - Hazardous decomposition products

Under fire conditions: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>).

## SECTION 11 - Toxicological information

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

## 11.1.1 – Acute toxicity

Ethanol (CAS No. 64-17-5)

Oral

LD50 1 187 - 15 010 mg/kg bw (rat)

Inhalation

LC50 (4 h) 115.9 - 133.8 mg/L air (rat)

Dermal

No data available

Other routes

No data available

Propan-2-ol (CAS No. 67-63-0)

Oral

LD50 5 840 mg/kg bw (rat)

Inhalation

LC50 (6 h) 10 000 ppm (rat)

Dermal

LD50 16.4 mL/kg bw (rabbit)

Other routes

No data available

Dioctyl maleate (CAS No. 142-16-5)

Oral

LD50 2 000 mg/kg bw (rat)

Inhalation

LD50 15 mL/kg bw (rabbit)

Dermal

No data available

Other routes

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Ora

LD50 2 500 mg/kg bw (rat)

Inhalation

No data available

Dermal





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 11

Other routes
No data available

## 11.1.2 - Skin corrosion/irritation

Ethanol (CAS No. 64-17-5)

No adverse effect observed (not irritating)

Propan-2-ol (CAS No. 67-63-0)

No adverse effect observed (not irritating)

Dioctyl maleate (CAS No. 142-16-5)

Adverse effect observed (irritating)

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Adverse effect observed (corrosive)

## 11.1.3 - Serious eye damage/irritation

Ethanol (CAS No. 64-17-5)

Adverse effect observed (irritating)

Propan-2-ol (CAS No. 67-63-0)

Adverse effect observed (irritating)

Dioctyl maleate (CAS No. 142-16-5)

No adverse effect observed (not irritating)

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Adverse effect observed (irritating)

## 11.1.4 - Respiratory or skin sensitisation

Ethanol (CAS No. 64-17-5)

Skin

No adverse effect observed (not sensitising)

Respiratory

No adverse effect observed (not sensitising)

Propan-2-ol (CAS No. 67-63-0)

Skin

No adverse effect observed (not sensitising)

Respiratory

No data available

Dioctyl maleate (CAS No. 142-16-5)

Skin

No adverse effect observed (not sensitising)

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Skin

No data available

Respiratory





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 12

## 11.1.5 - Germ cell mutagenicity

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

Toxicity - InVitro

No adverse effect observed (negative)

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No adverse effect observed (negative)

## 11.1.6 - Carcinogenicity

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 11.1.7 - Reproductive toxicity

Ethanol (CAS No. 64-17-5)

Effect on fertility – oral route

No adverse effect observed NOAEL 20 700 mg/kg bw/day (subchronic, mouse)

Effect on developmental toxicity – inhalation route

No adverse effect observed NOAEC 30 400 mg/m³ (subchronic, rat)

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Effect on fertility – oral route

No adverse effect observed NOAEL 250 mg/kg bw/day (subacute, rat)

Effect on developmental toxicity – oral route

No adverse effect observed NOAEC 250 mg/m<sup>3</sup> (subacute, rat)

## 11.1.8 - Summary of evaluation of the CMR properties

No data available.

## 11.1.9 - STOT-single exposure

Ethanol (CAS No. 64-17-5)





Data Sheet No: DS501 Version No: 005

Issue Date: 22<sup>nd</sup> June 2022 Page 13

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 11.1.10 - STOT-repeated exposure

Ethanol (CAS No. 64-17-5)

Oral

NOAEL (mouse): 9 400 mg/kg bw (total dose)

Inhalation

NOAEC (mouse): 1.3 mg/L air

Dermal

No data available

Propan-2-ol (CAS No. 67-63-0)

Oral

No data available

Inhalation

NOEC (rat): 500 - 5 000 ppm

Dermal

No data available

Dioctyl maleate (CAS No. 142-16-5)

Oral

LOAEL (rat): 30 mg/kg bw/day

Inhalation

No data available

Dermal

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Oral

Adverse effect observed NOAEL 250 mg/kg bw/day (subchronic, rat)

Inhalation

No data available

Dermal

No data available

## 11.1.11 - Aspiration hazard

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 14

Dioctyl maleate (CAS No. 142-16-5) No data available 2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7) No data available

## **SECTION 12 – Ecological information**

## 12.1 - Toxicity

## 12.1.1 - Acute (short term) toxicity fish

Ethanol (CAS No. 64-17-5) LC50 (4 days) 14.2 - 15.4 g/L Propan-2-ol (CAS No. 67-63-0) LC50 (4 days) 9.64 - 10 g/L

Dioctyl maleate (CAS No. 142-16-5) LC50 (4 days) 100 mg/L

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7) LL50 (4 days) 100 - 530 mg/L

## 12.1.2 - Acute (short term) toxicity crustacea

Ethanol (CAS No. 64-17-5) LC50 (48 h) 5.012 g/L

Propan-2-ol (CAS No. 67-63-0)

LC50 (24 h) 10 g/L

Dioctyl maleate (CAS No. 142-16-5)

EC50 (48 h) 59.5 mg/L

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

LC50 (48 h) 117.4 - 1 410 mg/L

## 12.1.3 – Acute (short term) toxicity algae/aquatic plants

Ethanol (CAS No. 64-17-5)

Algae

EC50 (72 h) 275 mg/L

Aquatic plants other than algae

No data available

Propan-2-ol (CAS No. 67-63-0)

Algae

No data available

Aquatic plants other than algae

No data available

Dioctyl maleate (CAS No. 142-16-5)

Algae

EC50 (72 h) 619 μg/L





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 15

Aquatic plants other than algae

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Algae

EC50 (72 h) 15 mg/L

Aquatic plants other than algae

No data available

## 12.1.4 - Acute (short term) toxicity other organisms

Ethanol (CAS No. 64-17-5)

Microorganisms

EC50 (4 h) 5.8 g/L

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

Microorganisms

EC50 (3 h) 1 g/L

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

EC50 (3 h) 420 mg/L

NOEC (4.167 h) 100 mg/L

## 12.1.5 - Chronic (long term) toxicity fish

Ethanol (CAS No. 64-17-5)

NOAEC (5 days) 250 - 1 000 mg/L

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.1.6 – Chronic (long term) toxicity crustacea

Ethanol (CAS No. 64-17-5)

NOAEC (10 days) 2 - 9.6 mg/L

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

NOEC (21 days) 100 µg/L

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 16

## 12.1.7 – Chronic (long term) toxicity algae/aquatic plants

Ethanol (CAS No. 64-17-5)

Algae

EC50 (4 days) 675 - 22 000 mg/L Aquatic plants other than algae EC50 (7 days) 4.432 - 5.967 g/L

Propan-2-ol (CAS No. 67-63-0)

Algae

No data available

Aquatic plants other than algae

No data available

Dioctyl maleate (CAS No. 142-16-5)

Algae

No data available

Aquatic plants other than algae

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Algae

No data available

Aquatic plants other than algae

No data available

## 12.1.8 - Chronic (long term) toxicity other organisms

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.2 - Persistence and biodegradability

## 12.2.1 - Abiotic degradation

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 17

## 12.2.2 - Physical and photo-chemical elimination

Ethanol (CAS No. 64-17-5) Phototransformation in air Dissipation half life (DT50) 2.8 - 13.8 h

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

Phototransformation in air Dissipation half life (DT50)

26.808 h

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.2.3 - Biodegradation

Ethanol (CAS No 64-17-5)

Biodegradation in water – screening tests

Readily biodegradable (100%)

Propan-2-ol (CAS No. 67-63-0)

Biodegradation in water – screening tests

Readily biodegradable (100%)

Dioctyl maleate (CAS No. 142-16-5)

Biodegradation in water – screening tests

Readily biodegradable but failing the 10-day window (100%)

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Biodegradation in water – screening tests

Readily biodegradable (100%)

## 12.3 - Bioaccumulative potential

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.3.1 - Partition coefficient n-octanol / water (log Kow)

Ethanol (CAS No. 64-17-5)

-0.35 @ 20 - 24 °C





Data Sheet No: DS501 Version No: 005

Issue Date: 22<sup>nd</sup> June 2022 Page 18

Propan-2-ol (CAS No. 67-63-0)

0.05 @ 25 °C

Dioctyl maleate (CAS No. 142-16-5)

7.24 @ 25 °C and pH 7

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

0.3 - 2.18 @ 23 °C

## 12.3.2 - Bioconcentration factor (BCF)

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

199.5 - 4 073.8 L/kg ww

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.4 - Mobility in soil

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.4.1 - Known or predicted distribution to environmental compartments

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.4.2 - Surface tension

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)





Data Sheet No: DS501 Version No: 005

Issue Date: 22<sup>nd</sup> June 2022 Page 19

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

36.03 - 44.4 mN/m @ 1.003 - 1.01 g/L and 20 - 21.2 °C

## 12.4.3 - Adsorption/desorption

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

Koc at 20°C 153 400

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

Koc at 20°C 17.8

#### 12.5 - Results of PBT and vPvB assessment

Ethanol (CAS No. 64-17-5)

This substance is not a PBT or a vPvB

Propan-2-ol (CAS No. 67-63-0)

This substance is not a PBT or a vPvB

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.6 - Endocrine disrupting properties

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)

No data available

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7)

No data available

## 12.7 - Other adverse effects

Ethanol (CAS No. 64-17-5)

No data available

Propan-2-ol (CAS No. 67-63-0)

No data available

Dioctyl maleate (CAS No. 142-16-5)





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 20

2-ethylhexylphosphoric acid (mono, diester) (CAS No. 12645-31-7) No data available

## 12.8 - Additional information

No additional information available.

## **SECTION 13 – Disposal considerations**

## 13.1 - Waste treatment methods

## 13.1.1 - Product / Packaging disposal

Disposal together with normal waste is not allowed. Special disposal is required according to regional, national, and European legislation. Do not empty into drains. Contact waste disposal services. Contaminated packaging should be emptied thoroughly. It can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned should be disposed of in the same manner as the product. Do not burn or use a cutting torch on the empty drum. Risk of explosion.

### 13.1.2 - Waste treatment - relevant information

No information available – treat as hazardous waste and dispose of in accordance with regional, national and European legislation.

## 13.1.3 - Sewage disposal - relevant information

Do not allow to enter the sewage system.

## 13.1.4 - Other disposal recommendations

No further information available.

## **SECTION 14 – Transport Information**

## 14.1 - UN Number

1993

## 14.2 – UN proper shipping name

ADR: Flammable Liquid n.o.s (contains ethanol and dioctyl maleate)
RID: Flammable Liquid n.o.s (contains ethanol and dioctyl maleate)
IMDG: Flammable Liquid n.o.s (contains ethanol and dioctyl maleate)
IATA-DGR: Flammable Liquid n.o.s (contains ethanol and dioctyl maleate)

## 14.3 – Transport hazardous class(es)

Labels/classification code/ hazard identification number /tunnel restriction code

ADR: 3; F1; 33: (D/E) RID: 3; F1; 33 IMDG: 3; (F-E, S-E)

IATA-DGR: 3

## 14.4 - Packing group

ADR: II RID: II





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 21

IMDG: II IATA-DGR: II

## 14.5 - Environmental hazards

Labelling according to 5.2.1.8 ADR: Labelling according to 5.2.1.8 RID: Labelling according to 5.2.1.6.3 IMDG: Labelling according to IATA-DGR:

Classification as environmentally hazardous according to 2.9.3 IMDG: Yes Classified as 'P' according to 2.10 IMDG: Yes

## 14.6 - Special precautions for user

No information available.

## 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

Regulation (EC) No. 1907/2006 (REACH) Regulation (EC) No. 2020/878 Annex II Regulation (EC) No. 1272/2008 (CLP)

Regulation (EC) No 1907/2006 (REACH), Article 57 SVHC Candidate list – none

UN GHS GB CLP GB MCL

#### International Inventories:

Europe (EINECS): all components are listed or exempt US (TSCA): all components are listed or exempt Canada (DSL/NDSL): all components are listed or exempt Japan (ENCS): at least one component is not listed Philippines (PICCS): all components are listed or exempt China (IECSC): all components are listed or exempt Australia (AICS): all components are listed or exempt Korea (KECL): at least one component is not determined New Zealand (NZIoC): all components are listed or exempt Taiwan (TCSI): all components are listed or exempt

## 15.2 - Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

## **SECTION 16 – Other Information**

## 16.1 – Indication of changes

SDS amended in accordance with Regulation (EC) No. 2020/878 Annex II





Data Sheet No: DS501 Version No: 005
Issue Date: 22<sup>nd</sup> June 2022 Page 22

## 16.2 - Abbreviations and acronyms

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (The

European Agreement concerning the International Carriage of Dangerous Goods by Road).

ATE: Acute Toxicity Estimate
BCF: Bio Concentration Factor

CLP: Classification, Labelling and Packaging

DNEL: Derived No Effect Level

DT50: Half life

EC: European Commission

EC50: Effective Concentration Limit (half maximal)

GB CLP: Great Britain Classification, Labelling and Packaging

GB MCL: Great Britain Mandatory Classification List IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration (50% of sample population)

LD50: Lethal Dose (50% of sample population)

M-Factor: Multiplying Factor

NOAEC: No Observed Adverse Effect Concentration

NOAEL: No Observed Adverse Effect Level
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted No Effect Concentration
PPE: Personal Protective Equipment

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

SCL: Specific Concentration Limit
STOT: Specific Target Organ Toxicity
UFI: Unique Formula Identifier code

UN GHS: United Nations Globally Harmonised System

vPvB: Very persistent, very bioaccumulative

## 16.3 - Key literature references and sources for data

European Chemicals Agency (ECHA) - information on chemicals

## 16.4 – Classification and procedures used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008 (CLP) AND GB CLP

Hazard class	Hazard category	Classification procedure
Flammable liquids	2	Calculation method
Serious eye damage/eye irritation	2	Calculation method
Aquatic chronic	2	Calculation method

## 16.5 - Relevant H-statements (number and full text)

H225: Highly flammable liquid and vapour.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

H373: May cause damage to organs through prolonged or repeated exposure.





Data Sheet No: DS501 Version No: 005 Issue Date: 22<sup>nd</sup> June 2022 Page 23

H410: Very toxic to aquatic life with long lasting effects.H411: Toxic to aquatic life with long lasting effects.

16.6 - Training advice

None.

16.7 - Further information

None.

The information provided in this safety data sheet is correct to our knowledge at the date of its revision. The information given only describes the products regarding safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this safety data sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.