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

1.1. Product identifier

Mixture identification:

Trade name: MACROBASE PHTALO BLUE

Trade code: L0MC0068

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

Recommended use: Coatings and paints, thinners, paint removers

Coloured concentrated base

Fluid pigmented dispersion

Professional uses

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company: Lechler SpA - Via Cecilio, 17 - 22100 Como - CO - Italy

Telephone: +39031586111

First Email: safety@lechler.eu

1.4. Emergency telephone number

UNITED KINGDOM: Emergency Number 0044 1606738600 - This telephone number is available during office hours only (8.45-16.45).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Flam. Liq. 3	Flammable liquid and vapour.
STOT SE 3	May cause drowsiness or dizziness.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word

Warning

Hazard statements

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P312	Call a POISON CENTER/doctor if you feel unwell.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

Special Provisions:

EUH208 Contains [N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato(2-)-N29,N30,N31, N32]copper. May produce an allergic reaction.

EUH208 Contains 2-hydroxyethyl methacrylate. May produce an allergic reaction.

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

n-butyl acetate

heptan-2-one

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

Results of PBT and vPvB assessment Not a PBT, vPvB substance as per the criteria of the REACH Regulation. Endocrine disrupting properties-Toxicity The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Endocrine disrupting properties-Ecotoxicity The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: MACROBASE PHTALO BLUE

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥25 - ≤30 %	n-butyl acetate	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29
≥7 - ≤10 %	C.I. Pigment Blue 15	CAS:147-14-8 EC:205-685-1	Not classified as hazardous	01-2119458771-32
≥1 - ≤2.5 %	monoalkyl or monoaryl or monalkylaryl esters of methacrylic acid	CAS:7534-94-3 EC:231-403-1 Index:607-134-00-4	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412 STOT SE 3, H335 Specific Concentration Limits: C ≥ 10%: STOT SE 3 H335	01-2119886505-27
≥1 - ≤2.5 %	phosphoric acid polyester		Eye Irrit. 2, H319	
≥1 - ≤2.5 %	heptan-2-one	CAS:110-43-0 EC:203-767-1 Index:606-024-00-3	Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H336	01-2119902391-49
≥0.5 - ≤1 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	STOT SE 3, H336; Flam. Liq. 3, H226	01-2119475791-29
≥0.3 - ≤0.5 %	[N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato(2-)-N29,N30,N31,N32]copper	CAS:28654-73-1 EC:249-125-4	Skin Sens. 1B, H317	01-2119971074-38
≥0.25 - ≤0.3 %	2-ethylhexanoic acid and its salts, with the exception of those specified elsewhere in this Annex	CAS:85203-81-2 EC:286-272-3 Index:607-230-00-6	Repr. 1B, H360D; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	01-2119979093-30
≥0.1 - ≤0.25 %	2-hydroxyethyl methacrylate	CAS:868-77-9 EC:212-782-2 Index:607-124-	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	01-2119490169-29

		00-X		
< 0.1 %	phosphoric acid	CAS:7664-38-2 EC:231-633-2 Index:015-011-00-6	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Specific Concentration Limits: C ≥ 25%: Skin Corr. 1B H314 10% ≤ C < 25%: Skin Irrit. 2 H315 10% ≤ C < 25%: Eye Irrit. 2 H319	01-2119485924-24
< 0.1 %	(2-methoxymethylethoxy)propanol	CAS:34590-94-8 EC:252-104-2	Substance with a Union workplace exposure limit.	01-2119450011-60
< 0.1 %	methyl methacrylate	CAS:80-62-6 EC:201-297-1 Index:607-035-00-6	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	01-2119452498-28

Substances in nanoform:

C.I. Pigment Blue 15	CAS:147-14-8 EC:205-685-1	Particle size distribution:	D10: >= 10 nm <= 50 nm D50: >= 10 nm <= 100 nm D90: >= 20 nm <= 150 nm (Measurement technique: TEM)
		Shape and aspect ratio:	Orthorhombic, 1 to 3 (Measurement technique: TEM)
		Crystallinity:	Crystalline: = 100% - (Measurement technique: X-ray Diffraction (XRD))
		Surface Treatment - Agent:	No specific treatment
		Specific surface area:	>= 30m2/m3 <= 94m2/m3 - (Measurement technique: Brunaurer, Emmett and Teller (BET) method using Nitrogen)

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

N.A.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
n-butyl acetate CAS: 123-86-4	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 724 mg/m3 - 150 ppm; Short Term: 966 mg/m3 - 200 ppm
	EU		Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Behaviour Indicative 2019/1831/EU

	ACGIH		Long Term: 50 ppm; Short Term: 150 ppm Eye and URT irr
C.I. Pigment Blue 15 CAS: 147-14-8	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1 mg/m3; Short Term: 2 mg/m3
heptan-2-one CAS: 110-43-0	ACGIH		Long Term: 50 ppm Eye and skin irr
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 237 mg/m3 - 50 ppm; Short Term: 475 mg/m3 - 100 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
	EU		Long Term: 238 mg/m3 - 50 ppm; Short Term: 475 mg/m3 - 100 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
2-methoxy-1-methylethyl acetate CAS: 108-65-6	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 274 mg/m3 - 50 ppm; Short Term: 548 mg/m3 - 100 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
[N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato(2-)-N29,N30,N31,N32]copper CAS: 28654-73-1	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1 mg/m3; Short Term: 2 mg/m3
phosphoric acid CAS: 7664-38-2	EU		Long Term: 1 mg/m3; Short Term: 2 mg/m3 Behaviour Indicative 2000/39/EC
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1 mg/m3; Short Term: 2 mg/m3
	ACGIH		Long Term: 1 mg/m3; Short Term: 3 mg/m3 URT, eye and skin irr
(2-methoxymethylethoxy) propanol CAS: 34590-94-8	EU		Long Term: 308 mg/m3 - 50 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 308 mg/m3 - 50 ppm Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.
	ACGIH		Long Term: 50 ppm Liver & CNS eff
methyl methacrylate CAS: 80-62-6	EU		Long Term: 50 ppm; Short Term: 100 ppm Behaviour Indicative 2009/161/ EU

	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 208 mg/m3 - 50 ppm; Short Term: 416 mg/m3 - 100 ppm
	ACGIH		Long Term: 50 ppm; Short Term: 100 ppm DSEN, A4 - URT and eye irr, body weight eff, pulm edema

Predicted No Effect Concentration (PNEC) values

n-butyl acetate CAS: 123-86-4	Exposure Route: Fresh Water; PNEC Limit: 0.18 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.36 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.01 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.98 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.09 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.09 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 35.6 mg/l
heptan-2-one CAS: 110-43-0	Exposure Route: Fresh Water; PNEC Limit: 0.098 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.009 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 982 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 1.89 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.189 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.321 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 12.5 mg/l
2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Fresh Water; PNEC Limit: 0.635 mg/kg
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 6.35 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.064 mg/kg
	Exposure Route: Freshwater sediments; PNEC Limit: 3.29 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.329 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.29 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l
2-hydroxyethyl methacrylate CAS: 868-77-9	Exposure Route: Fresh Water; PNEC Limit: 0.482 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.482 mg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 3.79 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 3.79 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.476 mg/kg
(2-methoxymethylethoxy) propanol CAS: 34590-94-8	Exposure Route: Fresh Water; PNEC Limit: 19 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 190 mg/l
	Exposure Route: Marine water; PNEC Limit: 1.9 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 70.2 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 7.02 mg/kg
	Exposure Route: Soil; PNEC Limit: 2.74 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 4168 mg/l
methyl methacrylate CAS: 80-62-6	Exposure Route: Fresh Water; PNEC Limit: 0.94 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.94 mg/l

Exposure Route: Soil; PNEC Limit: 1.47 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 5.74 mg/kg

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.94 mg/l

Derived No Effect Level (DNEL) values

n-butyl acetate CAS: 123-86-4	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 600 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Industry: 600 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 11 mg/kg dry weight (d.w.)
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Industry: 11 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 35.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Consumer: 300 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 35.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Consumer: 300 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 6 mg/kg dry weight (d.w.)
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Consumer: 6 mg/kg dry weight (d.w.)
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 2 mg/kg dry weight (d.w.)
	Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects Consumer: 2 mg/kg dry weight (d.w.)
heptan-2-one CAS: 110-43-0	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 1516 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 54.27 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 394.25 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 23.32 mg/kg dry weight (d.w.)
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 84.31 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 23.32 mg/kg dry weight (d.w.)
2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Consumer: 33 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 36 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 320 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 33 mg/m3

	Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute) Worker Professional: 550 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 796 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 275 mg/m3
2-hydroxyethyl methacrylate CAS: 868-77-9	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 1.3 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 4.9 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 0.83 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 2.9 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 0.83 mg/kg
phosphoric acid CAS: 7664-38-2	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 10.7 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 4.57 mg/m3
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects Consumer: 0.1 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 1 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 0.36 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 2 mg/m3
(2-methoxymethylethoxy) propanol CAS: 34590-94-8	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 37.2 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 308 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
methyl methacrylate CAS: 80-62-6	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 208 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 208 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects Worker Professional: 1.5 mg/cm2
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 13.67 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Short Term (acute) Worker Professional: 1.5 mg/cm2
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Consumer: 104 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Consumer: 74.3 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects Consumer: 1.5 mg/cm2
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects

Consumer: 8.2 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term (acute)
Consumer: 1.5 mg/cm2

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid
Colour: Blue
Odour: N.A.
pH: Not Relevant
Kinematic viscosity: > 20,5 mm2/sec (40 °C)
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Flash point: 36.5 °C (97.7 °F)
Upper/lower flammability or explosive limits: N.A.
Vapour density: N.A.
Vapour pressure: N.A.
Relative density: 1.06 g/cm3
Solubility in water: N.A.
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: The product is classified Flam. Liq. 3 H226
Kinematic viscosity m2/s (40°C) > 20,5 mm2/sec (40 °C)
Viscosity: = 70.00 s - Method: ISO/DIN 2431 84 - Section: 6.00 mm

Particle characteristics:

Particle size: N.A.
Nanoforms: See Nanoform information in Section 3.

9.2. Other information

Evaporation rate: N.A.
Miscibility: N.A.
Conductivity: N.A.
No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
	ATEmix - Oral : 128000 mg/kg bw
	ATEmix - Inhalation (Vapours) : 1336.8 mg/l
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H336)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

n-butyl acetate	a) acute toxicity	LD50 Oral Rat = 10760 mg/kg	OECD Test Guideline 423
		LC50 Inhalation > 20 mg/l 4h	
		LD50 Skin Rabbit > 14112 mg/kg	OECD Test Guideline 402
heptan-2-one	a) acute toxicity	LD50 Oral Rat = 1600 mg/kg	
		LC50 Inhalation Vapour Rat > 16.7 mg/l 4h	
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg	
		LC0 Inhalation Rat > 2000 Ppm 3h	
		LD50 Skin Rabbit > 5000 mg/kg	
phosphoric acid	a) acute toxicity	LD50 Oral Rat = 2600 mg/kg	
		LD50 Skin Rabbit = 2740 mg/kg	
(2-methoxymethylethoxy) propanol	a) acute toxicity	LD50 Oral Rat = 5350 mg/kg	
		LD50 Skin Rabbit > 2000 mg/kg	

11.2. Information on other hazards

Endocrine disrupting properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
n-butyl acetate	CAS: 123-86-4 - EINECS: 204-658-1 - INDEX: 607-025-00-1	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 18 mg/L 96 H OECD Test Guideline 203
		a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) = 44 mg/L 48 H OECD Test Guideline 202
		e) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) = 397 mg/L 72 H OECD Test Guideline 201
		c) Bacteria toxicity : IC50 Microorganisms Tetrahymena pyriformis = 356 mg/L 40 H
heptan-2-one	CAS: 110-43-0 - EINECS: 203-767-1 - INDEX: 606-024-00-3	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 131 mg/L 96h
		a) Aquatic acute toxicity : ErC50 Algae Selenastrum capricornutum (green algae) = 98.2 mg/L 72h
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9 - INDEX: 607-195-00-7	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) 100 mg/L 96 H
		a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) > 500 mg/L 48 H
		e) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) > 1000 mg/L 96 H
		b) Aquatic chronic toxicity : NOEC Fish Oryzias latipes (Japanese medaka) = 47.5 mg/L 14 D
		b) Aquatic chronic toxicity : NOEC Invertebrates Daphnia magna (Water flea) >= 100 mg/L 21 D
		e) Plant toxicity : NOEC Algae Selenastrum capricornutum (green algae) >= 1000 mg/L 96 H
phosphoric acid	CAS: 7664-38-2 - EINECS: 231-633-2 - INDEX: 015-011-00-6	a) Aquatic acute toxicity : LC50 Fish = 75.1 mg/L 96 H
		a) Aquatic acute toxicity : EC50 Invertebrates > 100 mg/L 48 H
		e) Plant toxicity : EC50 Algae > 100 mg/L 72 H
(2-methoxymethylethoxy)propanol	CAS: 34590-94-8 - EINECS: 252-104-2	a) Aquatic acute toxicity : LC50 Fish > 10000 mg/L 96 H
		a) Aquatic acute toxicity : EC50 Invertebrates Daphnia (water flea) > 85000 mg/L 48 H
methyl methacrylate	CAS: 80-62-6 - EINECS: 201-297-1 - INDEX: 607-035-00-6	a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata (guppy) 426.9 mg/L 96 H
		a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) = 57 mg/L 48 H
		e) Plant toxicity : EC50 Algae Pseudokirchneriella subcapitata (green algae) = 170 mg/L 96 H

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) > 79 mg/L 96 H

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT

IATA-Technical name: PAINT

IMDG-Technical name: PAINT

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Toxic ingredients quantity: 0.00

Very toxic ingredients quantity: 0.00

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 3

ADR - Hazard identification number: -

ADR-Special Provisions: 163 367 650

ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA):

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3 A72 A192

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 163 223 367 955

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2020/878

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: 30, 75

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Product belongs to category: P5c	5000	50000

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

2: Hazard to waters

German Lagerklasse according to TRGS 510:

LGK 3

SVHC Substances:

No SVHC substances present in concentration >= 0.1%

Dir. 2010/75/EC (VOC directive)

Volatile Organic compounds - VOCs = 33.25 %

Volatile Organic compounds - VOCs = 352.49 g/L

Estimated Total Content of Water 0.00 %

Estimated Total Solid Content 66.75 %

Classification according to VbF

Classification according to VbF Exempt

Mal-Code (Denmark)

Mal-Code (Denmark)	Mal Factor	Unit of Measure	Revision Status / Number	Regulatory Base

2 - 3	508	m3 air/10 g	1993	Administrative determined MAL-Factors

Biocides

REGULATION (EC) No 528/2012

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.16/1	Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.7/1B	Repr. 1B	Reproductive toxicity, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Flam. Liq. 3, H226	On basis of test data
STOT SE 3, H336	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 7: Handling and storage

- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information