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

1.1. Product identifier

Mara® *Prop* 1 L PP 180

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

Use of the substance/preparation

Industrial uses: Screen and pad printing ink, Spray processing

Uses advised against

Use by consumers (private households), as the necessary technical measures and personal protective equipment are not available to private households.

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Marabu GmbH & Co. KG
Asperger Strasse 4
71732 Tamm
Germany

Telephone no.	+49-7141/691-0
Information provided by / telephone	Department product safety
E-mail address of person responsible for this SDS	PRSI@marabu.com

1.4. Emergency telephone number

(+49) (0)621-60-43333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 3	H226
STOT SE 3	H335
STOT SE 3	H336
Aquatic Chronic 2	H411

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Warning

Hazard statements

H226 Flammable liquid and vapour.

H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261.9	Avoid breathing vapours/spray.
P273	Avoid release to the environment.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTRE or doctor if you feel unwell.
P391	Collect spillage.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains	Xylene; Hydrocarbons, C10, aromatics, <1% naphthalene; 2-Methoxy-1-methylethyl acetate; Hydrocarbons, C9, aromatic
EUH208 Contains	2-(Dimethylamino)ethyl methacrylate, Isobutyl methacrylate, May produce an allergic reaction.

Supplemental information

EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No special hazards have to be mentioned.
The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients

Hydrocarbons, C9, aromatic

CAS No.	64742-95-6
EINECS no.	918-668-5
Registration no.	01-2119455851-35 (LIST-NUMBER 918-668-5)
Concentration	>= 25 < 50 %

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H226
STOT SE 3	H336
STOT SE 3	H335
Asp. Tox. 1	H304
Aquatic Chronic 2	H411

Hydrocarbons, C10, aromatics, <1% naphthalene

CAS No.	64742-94-5
EINECS no.	265-198-5
Registration no.	01-2119463583-34 (LIST NUMBER 918-811-1)
Concentration	>= 10 < 20 %

Classification (Regulation (EC) No. 1272/2008)

Asp. Tox. 1	H304
Aquatic Chronic 2	H411
STOT SE 3	H336

2-Methoxy-1-methylethyl acetate

CAS No.	108-65-6
EINECS no.	203-603-9

Registration no.	01-2119475791-29				
Concentration	>=	1	<	10	%

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 3	H226
STOT SE 3	H336

Xylene

CAS No.	1330-20-7				
EINECS no.	215-535-7				
Registration no.	01-2119488216-32/01-2119486136-34				
Concentration	>=	1	<	10	%

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315
Flam. Liq. 3	H226
Acute Tox. 4	H332
Acute Tox. 4	H312
Eye Irrit. 2	H319
STOT SE 3	H335
STOT RE 2	H373
Asp. Tox. 1	H304
Aquatic Chronic 3	H412

cATpE	inhalative, Dust/Mist	1,5	mg/l

Ethyl benzene

CAS No.	100-41-4				
EINECS no.	202-849-4				
Registration no.	01-2119489370-35				
Concentration	>=	1	<	4	%

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
Acute Tox. 4	H332
STOT RE 2	H373
Asp. Tox. 1	H304
Aquatic Chronic 3	H412

cATpE	inhalative, Dust/Mist	1,5	mg/l
cATpE	inhalative, Vapors	11	mg/l

2-(Dimethylamino)ethyl methacrylate

CAS No.	2867-47-2				
EINECS no.	220-688-8				
Concentration	>=	0,1	<	1	%

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1	H317
Skin Irrit. 2	H315
Acute Tox. 4	H302
Acute Tox. 4	H312
Eye Irrit. 2	H319

Isobutyl methacrylate

CAS No.	97-86-9				
EINECS no.	202-613-0				
Concentration	>=	0,1	<	1	%

Classification (Regulation (EC) No. 1272/2008)

Aquatic Acute 1	H400
Flam. Liq. 3	H226
Eye Irrit. 2	H319
STOT SE 3	H335

Skin Irrit. 2	H315
Skin Sens. 1	H317

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

After inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Adhere to personal protective measures when giving first aid

Use personal protective equipment in case of possible contact with the product (see section 8).

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further symptoms are possible.

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

Hints for the physician / treatment

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Aalcohol resistant foam, CO2, powders, water spray/mist

Non suitable extinguishing media

water jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO); dense black smoke; Hydrogen chloride (HCl); Hydrogen fluoride (HF); Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear full chemical protective clothing. Fire fighter's clothing must conform to European standard EN469.

Other information

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Keep away sources of ignition. Remove persons to safety. Ensure adequate ventilation. Keep away unprotected persons. Avoid contact with skin, eyes and clothing. Avoid breathing vapours. For emergency responders: Wear personal protective equipment. Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2. Environmental precautions

Do not allow to enter drains or waterways. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

6.4. Reference to other sections

Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Due to the organic solvents' content of the mixture: Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Avoid skin and eye contact. Avoid the inhalation of particulates and spray mist arising from the application of this mixture. Smoking, eating and drinking shall be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

Advice on protection against fire and explosion

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

Classification of fires / temperature class / Ignition group / Dust explosion class

Classification of fires	B (Combustible liquid substances)
Temperature class	T2

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in accordance with national regulation

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Observe label precautions. Store between 15 and 30 °C in a dry, well ventilated place away from sources of heat and direct sunlight. If the storage conditions are not observed, the minimum shelf life is no longer guaranteed. Due to the organic solvents' content of the mixture: Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers which are

opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

Screen and pad printing ink

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Ethyl benzene

List	EH40			
Type	WEL			
Value	441	mg/m³	100	ppm(V)
Short term exposure limit	552	mg/m³	125	ppm(V)
Skin resorption / sensibilisation: Sk: 2011				

Ethyl benzene

List	EU			
Value	442	mg/m³	100	ppm(V)
Short term exposure limit	884	mg/m³	200	ppm(V)
Skin resorption / sensibilisation: Skin; Remarks: 2000/39/EG				

2-Methoxy-1-methylethyl acetate

List	EH40			
Type	WEL			
Value	274	mg/m³	50	ppm(V)
Short term exposure limit	548	mg/m³	100	ppm(V)
Skin resorption / sensibilisation: Sk: 2011				

2-Methoxy-1-methylethyl acetate

List	EU			
Value	275	mg/m³	50	ppm(V)
Short term exposure limit	550	mg/m³	100	ppm(V)
Skin resorption / sensibilisation: Skin; Remarks: 2000/39/EG				

Xylene

List	EH40			
Type	WEL			
Value	220	mg/m³	50	ppm(V)
Short term exposure limit	441	mg/m³	100	ppm(V)
Skin resorption / sensibilisation: Sk: 2005				

Xylene

List	EU			
Value	221	mg/m³	50	ppm(V)
Short term exposure limit	442	mg/m³	100	ppm(V)
Skin resorption / sensibilisation: Skin; Remarks: 2000/39/EG				

Mesitylene

List	EH40			
Type	WEL			
Value	125	mg/m³	25	ppm(V)
Status: 2011				

Mesitylene

List	EU			
Value	100	mg/m³	20	ppm(V)
Remarks: 2000/39/EG				

1,2,4-Trimethylbenzene

List	EH40			
Type	WEL			
Value	125	mg/m³	25	ppm(V)

Status: 2011

1,2,4-Trimethylbenzene

List	EU			
Value	100	mg/m³	20	ppm(V)

Remarks: 2000/39/EG

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-Methoxy-1-methylethyl acetate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	796	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	275	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	320	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	33	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	33	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	36	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Lifetime	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	550	mg/m³

Xylene

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	221	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	442	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	221	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	442	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	212	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	65,3	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	260	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	65,3	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	260	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	125	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	12,5	mg/kg/d

Hydrocarbons, C10, aromatics, <1% naphthalene

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	151	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	12,5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	32	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	7,5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	7,5	mg/kg/d

Ethyl benzene

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	77	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	293	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	180	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	15	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	1,6	mg/kg/d

Hydrocarbons, C9, aromatic

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	150	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	25	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	32	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	11	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	11	mg/kg/d

Predicted No Effect Concentration (PNEC)

2-Methoxy-1-methylethyl acetate

Reference substance	2-Methoxy-1-methylethyl acetate	
Type of value	PNEC	
Type	Freshwater	
Concentration	0,635	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	3,29	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0,29	mg/kg
Source	Literature value	

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l
Source	Literature value	

Type of value	PNEC	
Type	Marine sediment	
Concentration	0,329	mg/kg
Source	Literature value	

Type of value	PNEC	
Type	Saltwater	
Concentration	0,0635	mg/l

Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	6,35	mg/l

Xylene

Type of value	PNEC	
Type	Freshwater	
Concentration	0,327	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,327	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	12,46	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	12,46	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,31	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	6,58	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,327	mg/l

Ethyl benzene

Type of value	PNEC	
Type	Freshwater	
Concentration	0,1	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,01	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	9,6	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	13,7	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	1,37	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,68	mg/kg

8.2. Exposure controls

Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

General protective and hygiene measures

Observe the usual precautions for handling chemicals. Wearing closed work clothing is required. Wash hands and / or face before breaks and after work. Take off dirty, soaked clothes immediately. Wash soiled clothing before re-use. Store work clothing separately.

Respiratory protection

If workers could be exposed to concentrations above the exposure limit they should use a respirator to EN 140, fitted with a filter suitable for both particulates and vapours, to EN 14387, with an assigned protection factor of at least 10 (e.g. A2P3) . Selection of any respiratory protective equipment should ensure that it is adequate to reduce exposure to protect the worker's health and is suitable for the wearer, task and environment, including consideration of the facial features of the wearer.

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
Use gloves tested according to EN 374.
For prolonged or repeated handling, use

Appropriate Material		Fluororubber	
Material thickness		0,4	mm
Breakthrough time	>	480	min

The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection

Use safety eyewear tested according to EN ISO 16321-1 designed to protect against splash of liquids.

Body protection

Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre. Cotton or cotton/synthetic overalls or coveralls are normally suitable.

Environmental exposure controls

Do not allow to enter drains or water courses. If the legally prescribed emission limits are exceeded, a suitable exhaust air purification system must be installed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	black
Odour	solvent-like

Melting point

Remarks	Not applicable due to nature of the product

Freezing point

Remarks	Not applicable due to nature of the product

Boiling point or initial boiling point and boiling range

Reference substance	Xylene			
Value	appr.	139,5		°C
Pressure		1.013	hPa	
Source	Literature value			

Flammability

Flammable.

Upper and lower explosive limits

Reference substance	Hydrocarbons, C10, aromatics, <1% naphthalene		
Lower explosion limit	appr.	0,6	%(V)

Reference substance	Xylene		
Upper explosion limit	appr. 8		%(V)
Source	Literature value		

Flash point

Value	45	°C
Method	ASTM D 6450 (CCCFP)	

Auto-ignition temperature

Value	appr. 333	°C
Source	Literature value	

Decomposition temperature

Remarks	No decomposition if used as prescribed.

pH value

Remarks	Not applicable
Remarks	substance/mixture is non-soluble (in water)

Viscosity

kinematic

Value	> 1300		mm²/s
Temperature	20	°C	
Method	derived from dynamic viscosity		

Solubility(ies)

Remarks	Not applicable due to nature of the product

Partition coefficient n-octanol/water (log value)

Remarks	Not applicable due to nature of the product

Vapour pressure

Value	2,88		hPa
Temperature	20	°C	
Method	calculated		

Density and/or relative density

Value	0,981		g/cm³
Temperature	20	°C	
Method	DIN EN ISO 2811		

Relative vapour density

Value	> 1
Source	Literature value

Particle characteristics

Remarks	Not applicable due to nature of the product

9.2. Other information

Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.4. Conditions to avoid

Protect from heat/overheating. When exposed to high temperatures may produce hazardous decomposition products. Avoid high concentrations of solvent vapours. Observe the notes on ventilation (section 8).

10.5. Incompatible materials

Oxidising agents, strongly alkaline substances, Strongly acidic substances

10.6. Hazardous decomposition products

See chapter 5.2 (Firefighting measures - Special hazards arising from the substance or mixture). No decomposition during or intended use (see section 1).

SECTION 11: Toxicological information

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

Acute oral toxicity

Remarks	Based on available data, the classification criteria are not met.

Acute dermal toxicity

Remarks	Based on available data, the classification criteria are not met.

Acute dermal toxicity (Components)

Xylene

Species	rabbit		
LD50	>	4200	mg/kg

Acute inhalational toxicity

ATE	>	20	mg/l
Administration/Form	Vapors		
Method	calculated value (Regulation (EC) No. 1272/2008)		
ATE	>	5	mg/l
Administration/Form	Dust/Mist		
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute inhalative toxicity (Components)

Xylene

Species	rat		
LC50	>	29	mg/l
Duration of exposure		4 h	
Administration/Form	Vapors		

Skin corrosion/irritation

Remarks	Based on available data, the classification criteria are not met.

Skin corrosion/irritation (Components)

2-Methoxy-1-methylethyl acetate

Species	rabbit
evaluation	non-irritant

Serious eye damage/irritation

Remarks	Based on available data, the classification criteria are not met.

Sensitization

Remarks	Based on available data, the classification criteria are not met.

Mutagenicity

Remarks	Based on available data, the classification criteria are not met.

Reproductive toxicity

Remarks	Based on available data, the classification criteria are not met.

Carcinogenicity

Remarks: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks	The classification criteria are met.
evaluation	May cause respiratory irritation.
evaluation	May cause drowsiness or dizziness.

Repeated exposure

Remarks: Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Other information

There are no data available on the mixture itself.
The mixture has been assessed following the additivity method of the CLP Regulation (EC) No 1272/2008 and classified for toxicological hazards accordingly.

SECTION 12: Ecological information

12.1. Toxicity

General information

There are no data available on the mixture itself.Do not allow to enter drains or water courses.The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

12.2. Persistence and degradability

General information

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

General information

There are no data available on the mixture itself.

Partition coefficient n-octanol/water (log value)

Remarks: Not applicable due to nature of the product

12.4. Mobility in soil

General information

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

General information

There are no data available on the mixture itself.

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Do not allow to enter drains or water courses.
Wastes and emptied containers should be classified in accordance with relevant national regulation.
The European Waste Catalogue classification of this product, when disposed of as waste is
EWC waste code 08 03 12* waste ink containing dangerous substances
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
For further information contact your local waste authority.

Disposal recommendations for packaging

Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.
Empty containers must be scrapped or reconditioned.
Dispose of containers contaminated by the product in accordance with local or national legal provisions.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1210	1210	1210
14.2. UN proper shipping name	PRINTING INK	PRINTING INK	PRINTING INK
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	III	III	III
Remarks	This product can be transported without the Environmentally Hazardous Substance / Marine Pollutant mark, if packaged in accordance with ADR / IMDG SP375 resp. and transported in sizes of <=5L or <=5Kg.	The product can be transported in accordance with IMDG Code paragraph 2.10.2.7, provided packaging not more than 5 l / 5 kg.	The product is not subject to any other provisions of IATA provided packaging of not more than 5 l / 5 kg (A197)
Limited Quantity	5 l	5 l	
Transport category	3		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

Information for all modes of transport

14.6. Special precautions for user

Transport within the user's premises:
Always transport in closed containers that are upright and secure.
Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Other information

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

Major-accident categories acc. 96/82/EC

Category	9.II	Dangerous for environment	200.000	kg	500.000	kg
Category	6	Flammable	5.000.000	kg	50.000.000	kg

VOC

VOC (EU)	58,51	%	
VOC (EU)		574	g/l

Other regulations, restrictions and prohibition regulations

The product complies with the requirements of the Persistent Organic Pollutants Regulation 2019/1021.
The product complies with the requirements of Regulation 1005/2009 on substances that deplete the ozone layer.
The product is not subject to Regulation 649/2012 on the export and import of dangerous chemicals.

Other information

All components are contained in the TSCA inventory or exempted.
All components are contained in the DSL inventory.
All components are contained in the IECSC inventory.
All components are contained in the ECL inventory.
All components are contained in the PICCS inventory.
All components are contained in the AICS inventory.
All components are contained in the ENCS inventory.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
GGVSee: Gefahrgutverordnung See

IMDG: International Maritime Code for Dangerous Goods
ICAO: International Civil Aviation Organization
IATA: International Air Transport Association
CAS: Chemical Abstracts Service
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EmS: Emergency Schedules
AICS: Australian Inventory of Chemical Substances
MITI: Ministry of International Trade and Industry (Japan)
TSCA: Toxic Substances Control Act (USA)
VOC: Volatile Organic Compound
LD: Lethal dose
LC: Lethal concentration
SVHC: Substances of very high concern
DNEL: Derived no effect level
PNEC: Predicted no effect concentration
UN: United Nations
OEL: Occupational exposure limit

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.
The information in this Safety Data Sheet is based on the present state of knowledge and current legislation.
It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.
The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions.
As the specific conditions of use of the product are outside the supplier’s control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.
The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation.