



Trade name: TPV 1 L

Version: 7 /

Date revised: 13.07.2020

Substance number: 3501009700046

Replaces Version: 6 / WORLD

Print date: 13.07.20

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

### **1.1. Product identifier**

TPV 1 L

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

#### **Use of the substance/preparation**

Pad printing auxiliary

### **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  
Fax no. +49-7141/691-147  
Information provided by / telephone Department product safety  
E-mail address of person responsible PRSI@marabu.com  
for this SDS

### **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 H336

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

##### **Hazard pictograms**



##### **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.



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P271 Use only outdoors or in a well-ventilated area.  
 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.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

contains 2-Methoxy-1-methylethyl acetate

**2.3. Other hazards**

No special hazards have to be mentioned.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Solvent mixture of esters

**Hazardous ingredients****2-Methoxy-1-methylethyl acetate**

CAS No.	108-65-6				
EINECS no.	203-603-9				
Registration no.	01-2119475791-29				
Concentration	>= 50	<	100	%	

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

Flam. Liq. 3	H226
STOT SE 3	H336

**2-Methoxypropyl acetate**

CAS No.	70657-70-4				
EINECS no.	274-724-2				
Concentration	>= 0,1	<	0,3	%	

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

STOT SE 3	H335
Flam. Liq. 3	H226
Repr. 1B	H360D

**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**



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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.

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

Until now no symptoms known so far.

#### **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**

Recommended: alcohol resistant foam, CO<sub>2</sub>, powders, water spray/mist

##### **Non suitable extinguishing media**

Not be used for safety reasons: water jet

#### **5.2. Special hazards arising from the substance or mixture**

In the event of fire the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO); dense black smoke

#### **5.3. Advice for firefighters**

##### **Special protective equipment for fire-fighting**

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**

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

#### **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 Safe handling, see Section 7. 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**

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



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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**

Electrical installations/working materials must comply with the local applied technological safety standards. Storage rooms in which filling operations take place must have a conducting floor. 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. 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)**

Pad printing auxiliary

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

**8.1. Control parameters**

**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/m <sup>3</sup>

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	

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Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	33	mg/m <sup>3</sup>
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/m <sup>3</sup>
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/m <sup>3</sup>

**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



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## 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.

### Respiratory protection

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. Full mask, filter A

### Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

For prolonged or repeated handling nitrile rubber gloves with textile undergloves are required.

Material thickness > 0,5 mm

Breakthrough time < 30 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 designed to protect against splash of liquids.

### Body protection

Cotton or cotton/synthetic overalls or coveralls are normally suitable.

## SECTION 9: Physical and chemical properties

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

<b>Form</b>	Liquid	
<b>Colour</b>	colourless, clear	
<b>Odour</b>	solvent-like	
<b>Odour threshold</b>		
Remarks	No data available	
<b>pH value</b>		
Remarks	Not applicable	
<b>Melting point</b>		
Remarks	not determined	
<b>Freezing point</b>		
Remarks	not determined	
<b>Initial boiling point and boiling range</b>		
Value	appr. 148	°C
Pressure	1.013	hPa
Source	Literature value	
<b>Flash point</b>		
Value	44	°C
Method	ASTM D 6450 (CCCFP)	
<b>Evaporation rate (ether = 1) :</b>		



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Remarks not determined

**Flammability (solid, gas)**

Not applicable

**Upper/lower flammability or explosive limits**

Lower explosion limit appr. 1,5 %(V)

Upper explosion limit appr. 10,8 %(V)

Source Literature value

**Vapour pressure**

Value appr. 3 hPa

Temperature 20 °C

Method calculated

**Vapour density**

Remarks not determined

**Density**Value 0,970 g/cm<sup>3</sup>

Temperature 20 °C

Method DIN EN ISO 2811

**Solubility in water**

Remarks partially miscible

**Partition coefficient: n-octanol/water**

Remarks Not applicable

**Ignition temperature**

Value appr. 315 °C

Source Literature value

**Efflux time**

Value &lt; 12 s

Temperature 20 °C

Method DIN 53211 4 mm

**Explosive properties**

evaluation no

**Oxidising properties**

evaluation None known

**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**

When exposed to high temperatures may produce hazardous decomposition products.

**10.5. Incompatible materials**



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

## 10.6. Hazardous decomposition products

See chapter 5.2 (Firefighting measures - Special hazards arising from the substance or mixture).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 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 inhalational toxicity

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

#### 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 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.

#### 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.



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### 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 not classified as dangerous for the environment.

### 12.2. Persistence and degradability

#### General information

No data available

### 12.3. Bioaccumulative potential

#### General information

There are no data available on the mixture itself.

#### Partition coefficient: n-octanol/water

Remarks Not applicable

### 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.

### 12.6. 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.  
Not emptied containers are hazardous waste (waste code number 150110).

## **SECTION 14: Transport information**

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	III	III	III
Special provision	640E		
Limited Quantity	5 I		
Transport category	3		
14.5. Environmental hazards	-	no	-

**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. Transport in bulk according to Annex II of Marpol and the IBC Code**

no

**SECTION 15: Regulatory information**

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

**Other information**

The product does not contain substances of very high concern (SVHC).

**Other information**

All components are contained in the TSCA inventory or exempted.

All components are contained in the AICS inventory.

All components are contained in the DSL inventory.

All components are contained in the IECSC inventory.

All components are contained in the ENCS inventory.

All components are contained in the ECL inventory.

All components are contained in the NZIOC inventory.



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## 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**

H226	Flammable liquid and vapour.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.

### **CLP categories listed in Chapter 3**

Flam. Liq. 3	Flammable liquid, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

### **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.