

Trade name: P5 PR BOT 1 L

Version: 9 / GB

Date revised: 16.10.2023

Substance number: 3514009700025

Replaces Version: 8 / GB

Print date: 17.10.23

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

1.1. Product identifier

P5 PR BOT 1 L

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

Use of the substance/preparation

Industrial uses: Digital auxiliary

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 Department product safety

by / telephone

E-mail address of PRSI@marabu.com

person responsible

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. 2 H225

Eye Irrit. 2 H319

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

Precautionary statements



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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264.1	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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

Ethanol

CAS No.	64-17-5
EINECS no.	200-578-6
Registration no.	01-2119457610-43
Concentration	≥ 50 < 100 %
Classification (Regulation (EC) No. 1272/2008)	
	Flam. Liq. 2 H225
	Eye Irrit. 2 H319

Concentration limits (Regulation (EC) No. 1272/2008)
Eye Irrit. 2 H319 ≥ 50 %

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



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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

Alcohol 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 monoxide (CO); Carbon dioxide (CO₂); dense black smoke; 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



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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. Keep container dry in a cool, well-ventilated place. 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)

Digital auxiliary

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Ethanol

List	EH40			
Type	WEL			
Value	1920	mg/m ³	1000	ppm(V)
Status: 2011				

Derived No/Minimal Effect Levels (DNEL/DMEL)

Ethanol

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	950	mg/m ³

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	1900	mg/m ³

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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	343	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	114	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	950	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	206	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	87	mg/kg/d

Predicted No Effect Concentration (PNEC)

Ethanol

Type of value	PNEC	
Type	Freshwater	
Concentration	0,96	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,79	mg/l

Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	2,75	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	580	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	3,6	mg/kg



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Type of value	PNEC	
Type	Marine sediment	
Concentration	2,9	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,63	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	Butyl rubber
Material thickness	0,5 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 166 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



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Colour

colourless

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

Value

appr. 78

°C

Pressure

1.013 hPa

Method

Value taken from the literature

Flammability

Flammable.

Upper and lower explosive limits

Reference substance

Ethanol

Lower explosion limit

appr. 3,5

% (V)

Reference substance

Ethanol

Upper explosion limit

appr. 15

% (V)

Source

Literature value

Flash point

Value

appr. 12

°C

Method

ASTM D 6450 (CCCFP)

Auto-ignition temperature

Value

appr. 363

°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

< 5

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

29

hPa

Temperature

20

°C

Method

Value taken from the literature

Density and/or relative density

Value

0,8

g/cm³

Temperature

20

°C

Method

DIN EN ISO 2811

Relative vapour density

Value

> 1

Source

Literature value



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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 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.

Serious eye damage/irritation

evaluation

irritant

Remarks

The classification criteria are 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.



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Specific Target Organ Toxicity (STOT)

Single exposure

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

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 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 (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



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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 environment

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

Safety data sheet in accordance with regulation (EC) No 1907/2006



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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	1210	1210	1210
14.2. UN proper shipping name	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Special provision	640D		
Limited Quantity	5 l	5 l	
Transport category	2		
14.5. Environmental hazards	-		

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 7B Highly flammable liquids 5.000.000 kg 50.000.000 kg

VOC

VOC (EU) 93,6 %
VOC (EU) 748,8 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.



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Other information

All components are contained in the PICCS 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 TSCA inventory or exempted.
All components are contained in the DSL or NDSL 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.
H319	Causes serious eye irritation.

CLP categories listed in Chapter 3

Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2

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.