

EC safety data sheet (91/155 EEC)

Trade name: TAMPASTAR TPR

Status: 01.03.2005

Product no.: 3803

Version : 6 / GB

Date of printing : 02.03.2005

1.) Identification of the substance/preparation and company

Product details

Trade name

TAMPASTAR TPR

Identification of the manufacturer / supplier

Address

Marabuwerke GmbH & Co KG
Asperger Straße 4
D-71732 Tamm

Telephone no. (++49)-7141/691-0

Fax no. (++49)-7141/691-117

Information provided by / telephone

Product safety +49 7141/691-116 or 232

Emergency telephone number

Product safety +49 7141/691-116 or 232

Use

Pad printing ink

2.) Composition / information on ingredients

Chemical characterization

Pad printing ink based on acrylic resins and on solvents

Hazardous ingredients

4-HYDROXY-4-METHYLPENTAN-2-ONE

CAS no.	123-42-2			
EINECS no.	204-626-7			
Concentration	>= 15	<	40	%-b.w.
Classification	Xi;R36			

BUTYLGLYCOL ACETATE

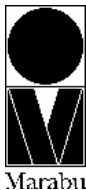
CAS no.	112-07-2			
EINECS no.	203-933-3			
Concentration	>= 5	<	15	%-b.w.
Classification	Xn;R20/21			

CYCLOHEXANONE

CAS no.	108-94-1			
EINECS no.	203-631-1			
Concentration	>= 1	<	10	%-b.w.
Classification	R10 Xn;R20 Xi;R38-41			

BUTYL GLYCOLATE

CAS no.	7397-62-8			
EINECS no.	230-991-7			
Concentration	>= 1	<	10	%-b.w.
Classification	Xi;R41			



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**All shades except for 970 contain additionally:
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM.**

CAS no. 64742-95-6
EINECS no. 265-199-0
Concentration \geq 0,5 < 15 %-b.w.
Classification Xn;R65
Xi;R37
N;R51/53
R10
R66
R67

**Ink shades 122, 130, 162, 920, 970 and 980 contain additionally:
2-METHOXY-1-METHYLETHYL ACETATE**

CAS no. 108-65-6
EINECS no. 203-603-9
Concentration \geq 1 < 5 %-b.w.
Classification R10
Xi;R36

**Ink shades 191-193 contain additionally:
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY**

CAS no. 64742-48-9
EINECS no. 265-150-3
Concentration \geq 1 < 5 %-b.w.
Classification Xn;R65
R10
R66
R67

**Ink shades 191 and 193 contain additionally:
XYLENE**

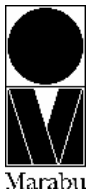
CAS no. 1330-20-7
EINECS no. 215-535-7
Concentration \geq 1 < 5 %-b.w.
Classification R10
Xn;R20/21
Xi;R38

**Ink shades 122, 130, 162 and 170 contain additionally:
ACIDIC POLYESTER**

Concentration \geq 1 < 5 %-b.w.
Classification Xi;R36

**All shades except for 170, 191-193 and 970 contain additionally:
STODDARD SOLVENT**

CAS no. 8052-41-3
EINECS no. 232-489-3
Concentration < 0,5 %-b.w.
Classification Xn;R65
N;R51/53
R66
R10



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Ink shade 130 contains additionally:

POLYETHYLENEIMINE

Concentration	< 0,5	%-b.w.
Classification	Xn;R22 N;R50/53	

Ink shade 934 contains additionally:

ISOTRIDECANOL; ETHOXYLATED (> 5 - 7 EO)

CAS no.	9043-30-5	
Concentration	< 0,5	%-b.w.
Classification	Xn;R22 Xi;R41 N;R51/53	

3.) Hazards possibilities

Hazard symbols

Xi Irritant

R phrases

41	Risk of serious damage to eyes.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Particular information pertaining specific risk for human / environment

The product is water polluting.

4.) First aid measures

General information

Immediately remove all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Unconsciousness: lateral position - call a physician.

After inhalation

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a physician.

After skin contact

Wash away with soap and water and rinse. Do NOT use solvents or thinners!

After eye contact

Flush with plenty of water (10 - 15 min.). Call a physician.

After ingestion

Call a physician. Keep at rest. Do not induce vomiting.

5.) Fire-fighting measures

Suitable extinguishing media

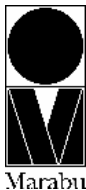
Carbon dioxide, foam, sand, dry extinguishing agent.

Extinguishing media that must not be used for safety reasons

Water jet should not be used because water is not mixable with a lot of organic solvents and such solvents will spread on the water surface.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

In case of fire, dangerous smoke gases such as carbon dioxide, carbon monoxide, soot, nitrogen oxides, metal oxides and halogenated hydrogens can be produced. Therefore, take suitable precautionary measures for fire fighting. Residues remaining after a fire have to be disposed of appropriately.



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Special protective equipment for fire-fighting

Breathing apparatus with an independent source of air may be required.

Other information

Cool endangered containers with water in case of fire.

6.) Accidental release measures

Personal precautions

Keep away from sources of ignition. Provide for good ventilation. Do not breathe vapours. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up/taking up

Remove by liquid absorbing material (e.g. kieselguhr) and process according to waste regulations. Clean preferably with a detergent; avoid use of solvents.

7.) Handling and storage

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 limit. Do not leave containers open. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. When using do not eat, drink or smoke. Comply with the health and safety at work laws.

Advice on protection against fire and explosion

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing. No sparking tools should be used.

Classification of fires

B (Combustible liquid substances)

Temperature class

T3

Storage

Requirements for storage rooms and vessels

Recommended storage temperature: 15-20°C. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

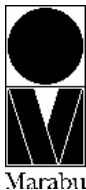
Further information on storage conditions

Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep away from sources of ignition. Keep containers dry and cool.

8.) Exposure controls / personal protection

Additional hints on technical system design.

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.



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Ingredients with occupational exposure limits to be monitored

4-HYDROXY-4-METHYLPENTAN-2-ONE

OES/EH40

Value 50 ml/m³ 241 mg/m³

STEL 75 ml/m³ 362 mg/m³

CYCLOHEXANONE

2000/39/EC

Value 10 ml/m³ 40,8 mg/m³

STEL 20 ml/m³ 81,6 mg/m³

Skin resorption /
sensibilisation skin

OES/EH40

Value 10 ml/m³

STEL 20 ml/m³

Skin resorption /
sensibilisation Sk

BUTYLGLYCOL ACETATE

2000/39/EC

Value 20 ml/m³ 133 mg/m³

STEL 50 ml/m³ 333 mg/m³

Skin resorption /
sensibilisation skin

OES/EH40

Value 20 ml/m³

STEL 50 ml/m³

Skin resorption /
sensibilisation Sk

All shades except for 170 and 970 contain additionally:

1,2,4-TRIMETHYLBENZENE

2000/39/EC

Value 20 ml/m³ 100 mg/m³

OES/EH40

Value ml/m³ 25 mg/m³

STEL 125 ml/m³ mg/m³

AROMATICS

OES/EH40

Value 500 mg/m³

Ink shades 122, 130, 162, 920, 970 and 980 contain additionally:

2-METHOXY-1-METHYLETHYL ACETATE

2000/39/EC

Value 50 ml/m³ 275 mg/m³

STEL 100 ml/m³ 550 mg/m³

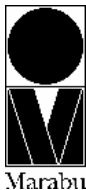
Skin resorption /
sensibilisation skin

OES/EH40

Value 50 ml/m³ 274 mg/m³

STEL 100 ml/m³ 548 mg/m³

Skin resorption /
sensibilisation Sk



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Ink shades 152, 924, 932, 940, 954 and 960 contain additionally: MESITYLENE

OES/EH40				
Value		ml/m ³	25	mg/m ³
STEL	125	ml/m ³		mg/m ³
2000/39/EC				
Value	20	ml/m ³	100	mg/m ³

Ink shades 191-193 contain additionally: NORMAL AND BRANCHED CHAIN ALKANES, >=C7

OES/EH40				
Value	1200	mg/m ³		

Ink shades 191 and 193 contain additionally: XYLENE

2000/39/EC				
Value	50	ml/m ³	221	mg/m ³
STEL	100	ml/m ³	442	mg/m ³
Skin resorption / sensibilisation	skin			
OES/EH40				
Value	50	ml/m ³	220	mg/m ³
STEL	100	ml/m ³	441	mg/m ³

Personal protective equipment

Respiratory protection

Breathing protection equipment required in inadequately ventilated places and during spraying.

Respiratory filter (gas) : A
Respiratory filter (part): P2

Hand protection

Chemical protection gloves are suitable, which are tested according to EN 374.

Recommendation for protection against components normally found in the products:

For short-term contact (e.g. spray protection) as well as for long-term contact (e.g. cleaning purposes):

Suitable material: LLDPE
Material thickness: 0.06 mm
Penetration time: >480 min.

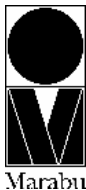
Protective gloves must always be tested and confirmed with regard to suitability to each specific working environment (e.g. mechanical resistance, product compatibility, antistatic).

Follow the instructions and information from the glove manufacturer in reference to use, storage, care, and frequency of glove exchange.

Protective gloves should be immediately replaced upon being damaged or when showing first signs of wear. Preventive skin protection (skin protective cream) is recommended. Contaminated skin areas should immediately be washed (follow data sheet for skin protection ZH 1/132).

Working procedures are to be so arranged that the permanent wearing of gloves will not be necessary.

We recommend to set up a hand protection plan, which is adapted to the needs of the local business. Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG Druck und Papierverarbeitung (528.1, 528.2, 531.X).



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Eye protection

Use safety glasses.

Skin protection

Personal should wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. All parts of the body should be washed after contact. Use re-greasing skin cream.

General protective and hygiene measures

The usual precautionary measures for the handling of chemicals have to be observed.

9.) Physical and chemical properties

Appearance

Form	pasty
Colour	see trade name
Odour	characteristic

Safety data

Changes in physical state

Type	Starts to boil	
Value	153	°C

Flash point

Value	57	°C
Method	ASTM D 6450 (CCCFP)	

Ignition temperature

Value	280	°C
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Explosion limits

Upper explosion limit	9,4	% vol
Lower explosion limit	0,7	% vol

Vapour pressure

Value	3	hPa
Reference temperature	20	°C

Density

Value	1,0	- 1,9	g/cm ³
Reference temperature	20	°C	

Viscosity

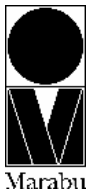
Type	Flow time	
Value	> 150	sec
Method	DIN-cup 4 mm	
Reference temperature	20	°C

Solubility in water

Remarks	parts of solvents
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Solvent content

Basic shade	Value	%
122	39	%
130	52	%
152	57	%
162	52	%
170	27	%
191	64	%
192	63	%
193	62	%
429	69	%
439	68	%
459	69	%



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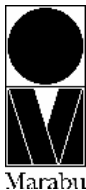
489	68	%
920	60	%
922	64	%
924	60	%
926	63	%
930	65	%
932	62	%
934	62	%
936	66	%
940	63	%
950	68	%
952	68	%
954	61	%
956	68	%
960	60	%
962	62	%
970	34	%
980	66	%

Solids content

Basic shade	Value	%
122	61	%
130	48	%
152	43	%
162	48	%
170	73	%
191	36	%
192	37	%
193	38	%
429	31	%
439	32	%
459	31	%
489	32	%
920	40	%
922	36	%
924	40	%
926	37	%
930	35	%
932	38	%
934	38	%
936	34	%
940	37	%
950	32	%
952	32	%
954	39	%
956	32	%
960	40	%
962	38	%
970	66	%
980	34	%

Other information

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



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10.) Stability and reactivity

Conditions to avoid

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

Materials to avoid

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

Hazardous decomposition products

When exposed to high temperatures, dangerous decomposition products such as carbon dioxide, carbon monoxide, soot, nitrogen oxides, metal oxides and halogenated hydrocarbons can be produced.

11.) Toxicological information

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect 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 symptoms like described above by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Vapours and the liquid itself will irritate the eyes. Risk of serious damage to eyes. Prolonged contact with the eyes may lead to corneal opacity. If swallowed, stomach complaints and irritation of the digestive organs may result.

Other information

There are no data available on the preparation itself.
The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EEC).

12.) Ecological information

General information / ecology

There are no data available on the preparation itself. Do not empty into waters or drains

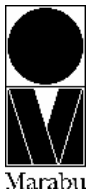
13.) Disposal considerations

Product

Dispose of or incinerate in accordance with corresponding regulations.
Code of waste pursuant to European Council Directive on waste: 080312 (Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks - wastes from MFSU of printing inks - waste ink containing dangerous substances).

Uncleaned packaging

Dispose of only completely emptied containers!
Code of waste pursuant on European Council Directive on waste: 150104 (Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified - packaging (including separately collected municipal packaging waste) - metallic packaging).



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14.) Transport information

Land transport ADR/RID

Class	3
Packaging group	III
Hazard id. no.	30
Label	3, -, -
UN number	1263
Technical name	Paint
Remarks	The product is viscous; non-dangerous good in Containers with a capacity <= 450 ltrs.

Marine transport IMDG/GGVSee

Class	3
Packaging group	III
UN number	1263
Proper shipping name	Paint
EmS	F-E, S-E
Label	3, -, -
Remarks	The product is viscous; non-dangerous good in Containers with a capacity <= 30 ltrs.

Air transport ICAO/IATA

Class	3
Packaging group	III
UN number	1263
Proper shipping name	Paint
Label	3, -, -

15.) Regulatory information

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC directives/GefStoff V

Hazard symbols

Xi Irritant

R phrases

41 Risk of serious damage to eyes.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

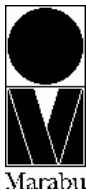
S phrases

20/21 When using do not eat, drink or smoke.
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
29 Do not empty into drains.
51 Use only in well-ventilated areas.

16.) Other information

Other information

According to their chemical structure, the applied raw materials do not contain any antimony, arsenic, soluble barium, lead, cadmium, chromium, mercury and selenium.



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4-HYDROXY-4-METHYLPENTAN-2-ONE

36 Irritating to eyes.

BUTYLGLYCOL ACETATE

20/21 Harmful by inhalation and in contact with skin.

CYCLOHEXANONE

10 Flammable.

20 Harmful by inhalation.

38 Irritating to skin.

41 Risk of serious damage to eyes.

BUTYL GLYCOLATE

41 Risk of serious damage to eyes.

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM.

65 Harmful: may cause lung damage if swallowed.

10 Flammable.

37 Irritating to respiratory system.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

2-METHOXY-1-METHYLETHYL ACETATE

10 Flammable.

36 Irritating to eyes.

NAPHTHA (PETROLEUM), HYDROTREATED HEAVY

10 Flammable.

65 Harmful: may cause lung damage if swallowed.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

XYLENE

10 Flammable.

20/21 Harmful by inhalation and in contact with skin.

38 Irritating to skin.

ACIDIC POLYESTER

36 Irritating to eyes.

STODDARD SOLVENT

10 Flammable.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

66 Repeated exposure may cause skin dryness or cracking.

POLYETHYLENEIMINE

22 Harmful if swallowed.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

ISOTRIDECANOL; ETHOXYLATED (> 5 - 7 EO)

22 Harmful if swallowed.

41 Risk of serious damage to eyes.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing safety data sheet

Laboratory/product safety.

Contact person

Dipl.-Chem. G. Heller or Dipl.-Ing. U. Voetter.

The instructions are based on today's information and knowledge. The safety data sheet describes products in relation to safety requirements. These instructions do not assure application technological properties of the product.