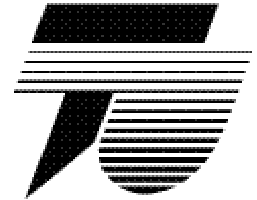


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according to Regulation (EC) 1907/2006

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01. Identification of the substance/preparation and of the company/undertaking

Product name

VERZÖGERER ZU

Use of the substance / preparation

VERZÖGERER - RETARDER - RETARDATEUR - RETARDANTE

Manufacturer/Supplier

TECA-PRINT AG

Street/P.O.Box

Bohlstrasse 17, Postfach

Country code/Postal code/Town/City

CH - 8240 Thayngen/Schweiz

Telephone / Telefax

++41 (0)52 645 20 00 / ++41 (0)52 645 21 01

Contact

info@teca-print.ch

Emergency information

Fon : ++41 (0) 44 251 51 51

Schweizerisches Toxikologisches Infozentrum > 24 Stunden täglich : CH - nationaler Notruf für Vergiftungsnotfälle = 145

02. Hazards identification

Hazard designation

Danger Symbol : Xn , Harmful ; N , Harmful for the environment

Special Danger Advice for Persons and Environment : Harmful: may cause lung damage if swallowed; Flammable; Risk of serious damage to eyes; Toxic for aquatic organisms, may cause long-term adverse effects in the aquatic environment

03. Composition/information on ingredients

3.1 Chemical Characteristics of Product :

MIXTURE OF SOLVENTS

3.2 Substances presenting a health hazard within the meaning guide-lines No. 67/548/EC or assigned occupational exposure limits.

CYCLOHEXANONE ; CAS-No. : 108-94-1

Percentage : 15 %

Classification : Xn ; R 10-20

SOLVENT NAPHTHALINE HEAVY ¹⁾ ; CAS-No. : 64742-94-5

Percentage : 50 %

Classification : Xn, N ; R 51/53-65

BUTYLHYDROXIACETATE ; CAS-No. : 7397-62-8

Percentage : 20 %

Classification : Xi ; R 41

1-ETHOXY-2-PROPYLACETATE ; CAS-No. : 54839-24-6

Percentage : 20 %

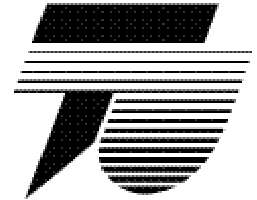
Classification : --- ; R 10

Clear text of R-Phrases see section 15 and 16 ¹⁾

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04. First-aid measures

General

In all cases of doubt or if symptoms persist, take medical advice. Never give anything by mouth to an unconscious person; call a physician. Immediately remove all contaminated clothing.

After inhalation

Remove to fresh air, keep the patient warm and at rest. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

After skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin-cleaner. DO NOT USE SOLVENTS OR THINNER.

After eye contact

Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

After ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

05. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam, CO₂, powders, water spray/mist.

Unsuitable extinguishing media

Jet of water.

Special risk posed by the substance or by the actual preparation, its combustion products or gases discharged

Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment

Appropriate breathing apparatus may be required

Additional information

06. Accidental release measures

Personal precautions

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

Environmental precautions

Do not allow to enter drains or water courses. If the product contaminates rivers, lakes and drains or soil, inform the responsible local authorities.

Methods for cleaning up/collecting

Contain and collect spillages with noncombustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

07. Handling and storage

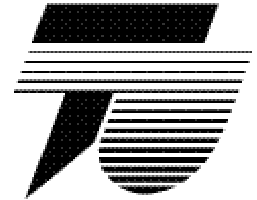
Information for safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations exceeding the occupational exposure limits. Moreover, the product should only be used in areas which have been cleared from direct light, fire and other sources of ignition. The product may charge itself electro-statically. Electrical equipment should be protected properly. When pouring the product into other containers, only ground mains should be used. It is

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recommended to wear antistatic clothing and foot wear. Use spark-proof tools. Avoid any contact with eyes or skin. Smoking, eating and drinking should be prohibited in areas of storage and use. For personal protection see Section 8. Follow legal protective and safety instructions.

Information about protection against explosions and fires

Vapour is heavier than air and may spread along floors. They may form explosive mixtures in combination with air. Preparations may charge electrostatic: Always use earthing leads when transferring from one container to another.

Requirements to be met by storerooms and containers

Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. 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. No pressurized container.

Information about separation of incompatible products

Store separately from strong acid and alkaline materials as well as from oxidizing agents.

Further information about storage conditions

Store at a cool and well ventilated place. Avoid heating and direct sunlight. Keep away from flammable matters and observe instructions on the labels. Always keep in containers of same material as the original one.

08. Exposure controls/personal protection

Provide adequate ventilation. Where reasonably practicable this should be achieved by use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and/or solvent vapor below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. (See 'Personal protection' below).

Components with critical values that require monitoring at the workplace (exposure limits)

CAS- Nr.	Designation According To EC Guide-Lines	Occupational Exposure Limits	Unit
108-94-1	CYCLOHEXANONE	20	ppm
64742-94-5	SOLVENT NAPHTHALINE HEAVY ¹⁾	50	ml/m ³
7397-62-8	BUTYLHYDROXIACETATE	--	--
54839-24-6	1-ETHOXY-2-PROPYLACETATE	--	--

The above values have been taken from the valid list (f. e. TRGS 900) of the Federal Republic of Germany or from the Regulations of SUVA/Switzerland regarding occupational exposure limits.

Personal protective equipment

Respiratory protection

If the solvent vapor concentration exceed the exposure limits, the use of breathing apparatus is practical or necessary (breathing protection measures)

Hand protection

Use protective gloves, e.g. Neoprene. At lasting or repeated contact of the product with the skin, use protecting emulsions. Observe recommendations of the manufacturer. After washing hands replace lost skin fat by fat containing skin creams

Eye protection

Safety glasses as protection against splashes of solvents should be worn.

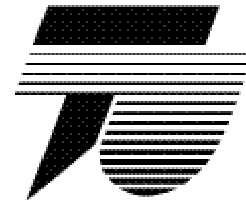
Body protection

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Personal should wear antistatic clothing made of natural fiber or of high temperature resistant synthetic fiber. All parts of body should be washed after contact.

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09. Physical and chemical properties

Image

Form : liquid
Colour : transparent
Odour : like solvents

Relevant safety data

	Value	Unit	Method
Boiling point / range :	> 175	°C	
Flash point :	> 55	°C	Abel-Pensky
Viscosity	app. 25	mPas	(23°C)
Lower explosion limit :	1,1	% b.v.	(solvent)
Upper explosion limit :	7,9	% b.v.	(solvent)
Content of solvent	100	Weight-%	
Solvent separation test	---	%	
Density :	1,0	g/cm ³	at 23 °C
Solubility in water :	minimal miscible		at 23 °C
pH value :	n. a.		

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 and strongly alkaline and strongly acids to prevent the possibility of exothermic reaction.

Hazardous decomposition products

In a fire, hazardous decomposition products such as smoke, carbonmonoxide, carbon dioxide and oxides of nitrogen may be produce.

11. Toxicological information

Experience on practice

There is no data available on the product itself. It is formulated within the SBPIM's guidelines on materials for exclusion from printing inks and varnishes. Exposure to organic solvent vapor may result in adverse health effects such as irritation of the mucous membrane and the respiratory system and adverse effects on the renal and central nervous systems. Symptoms include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness. Repeated or prolonged contact with the product may lead to removal of natural fats from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Splashes in the eyes may cause irritation and reversible local damage.

Additional toxicological information

12. Ecological information

Additional ecological information

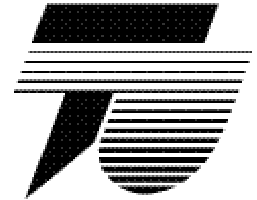
General ecological information

There is no data available on the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

13. Disposal considerations

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Product

Do not empty into waters or drains. Can be taken to a suitable incineration centre in observance of local regulations.

Waste Key VeVA-code 070704 Country : Switzerland
Waste key (acc. TA- Abfall) 070704 Country : EC

Contaminated packaging

Recommendation

The container and packaging materials are recyclable according to the local prescriptions and regulations

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the control of pollution act and the environmental protection act.

14. Transport information

Declarations according to the transport regulations for road (ADR), rail (RID), sea (IMO) and air (ICAO / IATA) transport.

Land transport	UN Number : 1210 3 (Sondervorschrift 640 E)
	Transp. Designations: Printing ink related material
Maritime transport	Package group : III
	UN Number : 1210 IMO-Klasse 3.3 EmS-Nr. F-E, S-D
	Transp. Designations: Printing ink related material
	Package group III Warning 3
	Marine pollutant no
Air transport	UN Number : 1210 IATA/ICAO- Class 3
	Transp. Designations: Printing ink related material
	Package group III

15. Regulatory information

Classification according to EC directives

Danger symbol and danger designation



Xn ; Harmful



N ; Dangerous for the environment

Hazard Determining Components of Labelling

BUTYLHYDROXIACETATE ; SOLVENT NAPHTHALINE HEAVY

R-phrases

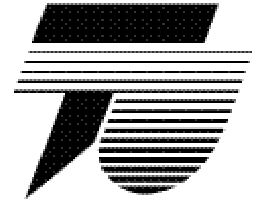
10 Flammable
51/53 Toxic for aquatic organisms, may cause long-term adverse effects in the aquatic environment
65 Harmful: may cause lung damage if swallowed

S-phrases

16 Keep away from sources of ignition – No smoking
24/25 Avoid contact with eyes and the skin
29/56 Do not empty into drains
61 Avoid release to the environment. Refer to special instructions (MSDS)

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National regulatory information

Classification According to BAG (Switzerland) and German Directives

CH-SZID						See also label				
Luftreinhalteverordnung	LRV- class	1	---	%	2	---	%	3	100	%
Immissionsschutz	TA-Luft	I	---		II	---		III	100	%
Brandschutz	VbF- class	n.e.			BVD-class	n.e.				
Wasserhaushalt	WGK	(self-assessment)			2					

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 legislations. The provision of the Health and Safety at Work etc. Act and the Control Substances Hazardous to Health Regulations apply to the use of this product at work.

International regulatory information

Content VOC (EC) : 46,08 % b. w.

16. Other information

Further information

The information contained in this Safety Data Sheet is provided in accordance with the requirements of the CHIP Regulations. 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 is based on the present state of knowledge and current national 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.

R-Phrases of components

10	Flammable
20	Harmful by inhalation
41	Risk of serious damage to eyes
51/53	Toxic for aquatic organisms, may cause long-term adverse effects in the aquatic environment
65	Harmful: may cause lung damage if swallowed

Department issuing data sheet

TECA-PRINT AG, Bohlstrasse 17, CH - 8240 Thayngen, Switzerland

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.