

Productname: Verzögerer ZF  
Print date 22.06.2016  
Version 1.7  
Validity Date 09.05.2015  
69999 EN  
Page1 / 7

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

**1.1. Product identifiers:**

Identification of the substance or mixture: Verzögerer ZF

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

**Relevant identified uses:**

Printing aids

**1.3. Details of the supplier of the safety data sheet**

**supplier (manufacturer/importer/downstream user/distributor)**

TECA-PRINT AG  
Bohlstrasse 17  
Postfach  
CH - 8240 Thayngen/Schweiz  
Phone: +41 (0) 52 645 20 00  
Fax: +41 (0) 52 645 21 01  
E-mail: info@teca-print.com

**Dept. responsible for information:**

E-mail [msds@teca-print.com](mailto:msds@teca-print.com)

**1.4. Emergency telephone number**

Emergency telephone number Tox Center Zürich: 0041 - 44 251 51 51

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.

**Classification according to Directive 67/548/EEC or 1999/45/EC**

This mixture is classified as hazardous according to 1999/45/EC.

Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
------------	---------	---

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



Warning

**Hazard statements**

H312 + H332 Harmful in contact with skin or if inhaled.

**Precautionary statements**

P261 Avoid breathing vapours.  
P280 Wear protective gloves and eye/face protection.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P501 Dispose of contents/container to industrial incineration plant.

**contains:**

2-butoxyethyl acetate

**Supplemental Hazard information (EU)**

n.a.

**Labelling (67/548/EEC or 1999/45/EC)**



Xn Harmful

**Hazard statements**

Productname: Verzögerer ZF  
Print date 22.06.2016  
Version 1.7  
Validity Date 09.05.2015  
69999 EN  
Page 2 / 7

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

**Precautionary statements**

36/37 Wear suitable protective clothing and gloves.

51 Use only in well-ventilated areas.

**contains:**

2-butoxyethyl acetate

**Special provisions concerning the labelling of certain mixtures**

n.a.

**23. Other hazards**

**SECTION 3: Composition / information on ingredients**

**3.2. Mixtures**

**Product description / chemical characterization**

**Description** Organic solvent or solvent mixture

**Hazardous ingredients**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
203-933-3	01-2119475112-47-XXXX	50 - 100
112-07-2	2-butoxyethyl acetate	
607-038-00-2	Acute Tox. 4 H332 / Acute Tox. 4 H312	

**Classification according to Directive 67/548/EEC or 1999/45/EC**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
203-933-3	01-2119475112-47-XXXX	50 - 100
112-07-2	2-butoxyethyl acetate	
607-038-00-2	Xn; R20/21	

**Additional information**

Full text of R-phrases: see section 16.

Full text of H-phrases: see section 16.

**SECTION 4: First aid measures**

**41. Description of first aid measures:**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

**42. Most important symptoms and effects, both acute and delayed:**

In all cases of doubt, or when symptoms persist, seek medical advice.

**43. Indication of any immediate medical attention and special treatment needed**

**SECTION 5: Firefighting measures**

Productname:	Verzögerer	ZF	
Print date	22.06.2016		69999 EN
Version	1.7	Validity Date 09.05.2015	Page3 / 7

#### 5.1. Extinguishing media

##### Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

##### Extinguishing media which must not be used for safety reasons:

strong water jet

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

Inhaling hazardous decomposing products can cause serious health damage.

#### 5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

#### 6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

#### 6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

##### Precautions against fire and explosion:

Vapours are heavier than air. Vapours form explosive mixtures with air.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".

##### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

##### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 35 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Productname: Verzögerer ZF  
 Print date 22.06.2016  
 Version 1.7 Validity Date 09.05.2015

69999 EN  
 Page 4 / 7

**Occupational exposure limit values:**

EC No. CAS No.	Description	type Country:	Limit value		Unit
			STEL (EC)	TWA (EC)	
203-933-3 112-07-2	2-butoxyethyl acetate	WEL	332 50	133 20	mg/m <sup>3</sup> ppm

**Additional information**

TWA (EC): occupational exposure limit value  
 STEL (EC): short-term occupational exposure limit value

**8.2. Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls**

**Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection**

For prolonged or repeated handling the following glove material must be used: butyl rubber  
 Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.  
 Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection**

Wear closely fitting protective glasses in case of splashes.

**Protective clothing**

Recommendation Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

**SECTION 9: Physical and chemical properties**

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

**Appearance:**

Physical state liquid  
 Colour as labeled  
 Odour typical

Safety relevant basis data	Unit	Method	Remark
Flash point:	78 °C	DIN 53213	
Ignition temperature in °C:	265 °C		
Lower explosion limit	0,6 Vol-%		
Upper explosion limit	10,7 Vol-%		
Vapour pressure at 20 °C:	0,30 mbar		
Density at 20 °C:	0,95 g/cm <sup>3</sup>		
Water solubility (g/L)	not soluble		
pH at 20 °C:	-		
Viscosity at 20 °C	11 s 4 mm	DIN 53211	
Solvent separation test (%)	< 3 %	ADR/RID	
Solid content (%):	0,00 Wt %		
solvent content:			
Organic solvents:	100 Wt %		
Water:	0 Wt %		

**9.2. Other information:**

**SECTION 10: Stability and reactivity**

Productname: Verzögerer ZF  
Print date 22.06.2016  
Version 1.7 Validity Date 09.05.2015

69999 EN  
Page 5 / 7

**101. Reactivity**

**102. Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

**103. Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

**104. Conditions to avoid**

Hazardous decomposition byproducts may form with exposure to high temperatures.

**105. Incompatible materials**

**106. Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

**SECTION 11: Toxicological information**

No data on preparation itself available.

**11.1. Information on toxicological effects**

**Acute toxicity**

Toxicological data are not available.

**Irritant and corrosive effects**

Toxicological data are not available.

**Sensitisation**

Toxicological data are not available.

**Specific target organ toxicity**

Toxicological data are not available.

**Aspiration hazard**

Toxicological data are not available.

**Practical experience/human evidence**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

**SECTION 12: Ecological information**

**overall evaluation**

There is no information available on the preparation itself.  
Do not allow to enter into surface water or drains.

**121. Toxicity**

Toxicological data are not available.

**122. Persistence and degradability**

Toxicological data are not available.

**123. Bioaccumulative potential**

Toxicological data are not available.

**124. Mobility in soil**

Toxicological data are not available.

**125. Results of PBT assessment**

Productname:	Verzögerer	ZF	
Print date	22.06.2016		69999 EN
Version	1.7	Validity Date 09.05.2015	Page 6 / 7

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**126. Other adverse effects**

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Appropriate disposal / Product Recommendation**

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**

140603                      othersolvents and solvent mixtures

**packaging**

**Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

**SECTION 14: Transport information**

**No dangerous good in sense of this transport regulation.**

**141. UN number**

n.a.

**142 UN proper shipping name**

**143 Transport hazard class(es)**

n.a.

**144 Packing group**

n.a.

**145 Environmental hazards**

Land transport (ADR/RID)

n.a.

Marine pollutant

n.a.

**146 Environmental hazards**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Additional information**

**Land transport (ADR/RID)**

tunnel restriction code

-

**Sea transport (IMDG)**

EmS-No.

n.a.

**147. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**SECTION 15: Regulatory information**

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

**EU legislation**

**Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**

VOC-value (in g/L) ISO 11890-2: 947,700

VOC-value (in g/L) ASTM D 2369: 947,700

**National regulations**

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Productname:	Verzögerer	ZF	
Print date	22.06.2016		69999 EN
Version	1.7	Validity Date 09.05.2015	Page 7 / 7

**Other regulations, restrictions and prohibition regulations**

**152 Chemical Safety Assessment**

Chemical safety assessments for substances in this preparation were not carried out.

**SECTION 16: Other information**

**Relevant R-and H-phrases (Number and full text):**

Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.

**Additional information**

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

**remark**

n.a. = not applicable