

**MATERIAL SAFETY DATA SHEET**  
according to 1907/2006/EC, Article 31

3576509

Reviewed on: 07.06.2019

Printing date: 07.06.2019

## SECTION 01: Identification of the substance/mixture and of the company undertaking

- **1.1 Product identifier**
- *Trade name:*  
VERDÜNNER 1300-98
- Article number / Safety Data Sheet:  
V13000
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Application of the substance / the preparation  
Coating material
- **1.3 Details of the supplier of the safety data sheet**
- *Manufacturer/Supplier:*  
Teknos Feyco AG  
Industriestrasse 3  
LI-9487 Gamprin-Bendern  
T +423 375 94 00  
F +423 375 94 99
- *Further information obtainable from:*  
Product safety department.  
e-mail address: li-sdb@teknos.com
- **1.4 Emergency telephone number:**  
Swiss Toxicological Information Centre  
Emergency telephone: +41 (0)44 251 51 51

## SECTION 02: Hazards identification

- **2.1 Classification of the substance or mixture**
- Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Liq. 2 - H225 Highly flammable liquid and vapour.



GHS08

- \* Repr. 2 - H361d Suspected of damaging the unborn child.
- \* STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.
- \* Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways.



GHS07

- \* Skin Irrit. 2 - H315 Causes skin irritation.
- \* Eye Irrit. 2 - H319 Causes serious eye irritation.
- \* STOT SE 3 - H336 May cause drowsiness or dizziness.
- \* Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms



GHS02



GHS08



GHS07

- Signal word  
Danger

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- \* Hazard-determining components of labelling:  
n-butyl acetate / toluene / Aromatic hydrocarbons, C8 (Nota J, -R45, R46, <0. 1% benzene) / ethyl acetate
- \* Hazard statements  
H225 Highly flammable liquid and vapour.  
H361d Suspected of damaging the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H412 Harmful to aquatic life with long lasting effects.
- \* Precautionary statements  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.
- \* **2.3 Other hazards**
- \* Results of PBT and vPvB assessment
- \* PBT:  
Not applicable.
- \* vPvB:  
Not applicable.

**SECTION 03: Composition/information on ingredients**

- \* **3.2 Chemical characterization: Mixtures**
- \* Description:  
Mixture of substances listed below with nonhazardous additions.

- \* Dangerous components:

CAS Number		%
100-41-4	<b>ethylbenzene</b> <i>EC number: 202-849-4</i> <i>Record number 01-2119489370-35</i> <b>Flam. Liq. 2 - H225;</b> <b>STOT RE 2 - H373, Asp. Tox. 1 - H304;</b> <b>Acute Tox. 4 - H332</b>	1,00- 5,00
90989-38-1	<b>Aromatic hydrocarbons, C8 (Nota J, -R45, R46, &lt;0. 1% benzene)</b> <i>EC number: 292-694-9</i>	5,00- 10,00
108-88-3	<b>toluene</b> <i>EC number: 203-625-9</i> <i>Record number 01-2119471310-51</i> <b>Flam. Liq. 2 - H225;</b> <b>Repr. 2 - H361d, STOT RE 2 - H373, Asp. Tox. 1 - H304;</b> <b>Skin Irrit. 2 - H315, STOT SE 3 - H336</b>	15,00- 25,00
1330-20-7	<b>xylene</b> <i>EC number: 215-535-7</i> <i>Record number 01-2119488216-32</i> <b>Flam. Liq. 3 - H226;</b> <b>Acute Tox. 4 - H312, Acute Tox. 4 - H332, Skin Irrit. 2 - H315</b>	1,00- 5,00
123-86-4	<b>n-butyl acetate</b> <i>EC number: 204-658-1</i>	40,00- 60,00

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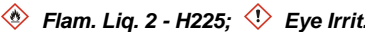
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*		<b>Record number 01-2119485493-29</b>	
*			
*		<b>H336</b>	
*	<b>141-78-6</b>	<b>ethyl acetate</b>	<b>5,00- 10,00</b>
*		<b>EC number: 205-500-4</b>	
*		<b>Record number 01-2119475103-46</b>	
*			
*		<b>2 - H319-EUH066, STOT SE 3 - H336</b>	

#### SECTION 04: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:**  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### SECTION 05: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:**  
Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Mouth respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

#### SECTION 06: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Prevent seepage into sewage system, workpits and cellars.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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### SECTION 07: Handling and storage

- **Handling:**
- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Take note of emission threshold.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.
- **Information about storage in one common storage facility:**  
Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)**  
No further relevant information available.

### SECTION 08: Exposure controls/personal protection

	• <b>8.1 Control parameters</b>		
	• <b>Ingredients with limit values that require monitoring at the workplace:</b>		
*	<b>100-41-4 ethylbenzene</b>		
	<b>MAK</b>		
*	<b>Short-term value</b>	<b>220</b>	<b>mg/m3</b>
*		<b>50</b>	<b>ppm</b>
*	<b>Long-term value</b>	<b>220</b>	<b>mg/m3</b>
		<b>50</b>	<b>ppm</b>
*	<b>H OI B;</b>		
*	<b>108-88-3 toluene</b>		
	<b>MAK</b>		
*	<b>Short-term value</b>	<b>760</b>	<b>mg/m3</b>
		<b>200</b>	<b>ppm</b>
*	<b>Long-term value</b>	<b>190</b>	<b>mg/m3</b>
*		<b>50</b>	<b>ppm</b>
*	<b>H OI B R2f R2d SSc;</b>		
*	<b>1330-20-7 xylene</b>		
	<b>MAK</b>		
*	<b>Short-term value</b>	<b>870</b>	<b>mg/m3</b>
*		<b>200</b>	<b>ppm</b>
*	<b>Long-term value</b>	<b>435</b>	<b>mg/m3</b>
*		<b>100</b>	<b>ppm</b>
*	<b>H B;</b>		
	<b>123-86-4 n-butyl acetate</b>		
	<b>MAK</b>		
	<b>Short-term value</b>	<b>960</b>	<b>mg/m3</b>

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		200	ppm
	<b>Long-term value</b>	480	mg/m3
		100	ppm
	<b>SSc;</b>		
	<b>141-78-6 ethyl acetate</b>		
	<b>MAK</b>		
*	<b>Short-term value</b>	1460	mg/m3
*		400	ppm
*	<b>Long-term value</b>	730	mg/m3
*		200	ppm
	<b>SSc;</b>		
	• Ingredients with biological limit values:		
*	<b>100-41-4 ethylbenzene</b>		
	<b>BAT</b>		
*	<b>1,5 mg/l</b>		
	<b>Untersuchungsmaterial: Vollblut</b>		
	<b>Probennahmezeitpunkt: Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Ethylbenzol</b>		
	<b>2 g/g Kreatinin</b>		
	<b>Untersuchungsmaterial: Urin</b>		
*	<b>Probennahmezeitpunkt: Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Mandelsäure plus Phenylglyoxylsäure</b>		
*	<b>108-88-3 toluene</b>		
*	<b>BAT</b>		
*	<b>600 µg/l</b>		
*	<b>Untersuchungsmaterial: Vollblut</b>		
*	<b>Probennahmezeitpunkt: Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Toluol</b>		
*	<b>2 g/g Kreatinin</b>		
*	<b>Untersuchungsmaterial: Urin</b>		
*	<b>Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Hippursäure</b>		
*	<b>0,5 mg/l</b>		
*	<b>Untersuchungsmaterial: Urin</b>		
*	<b>Probennahmezeitpunkt: Expositionsende bzw. Schichtende, bei Langzeitexposition: Nach mehreren vorangegangenen Schichten</b>		
*	<b>Biol. Parameter: o-Kresol</b>		
*	<b>1330-20-7 xylene</b>		
*	<b>BAT</b>		
*	<b>1,5 g/g Kreatinin</b>		
*	<b>Untersuchungsmaterial: Urin</b>		
*	<b>Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Methyl-Hippursäure</b>		
*	<b>1,5 mg/l</b>		
*	<b>Untersuchungsmaterial: Vollblut</b>		
*	<b>Probennahmezeitpunkt: Expositionsende bzw. Schichtende</b>		
*	<b>Biol. Parameter: Xylol</b>		

- Additional information:  
The lists valid during the making were used as basis.

- 8.2 Exposure controls

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- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.  
Do not eat or drink while working.  
Be sure to clean skin thoroughly after work and before breaks.
- **Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Suitable respiratory protective device recommended.
- **Protection of hands:** The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Protective gloves Impervious gloves
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- **Eye protection:** Safety glasses Tightly sealed goggles
- **Body protection:** Protective work clothing

## SECTION 09: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

#### Appearance:

<b>Form:</b>	Liquid
<b>Colour:</b>	According to product specifica
<b>Odour:</b>	Characteristic Characteristic
<b>Odour threshold:</b>	Not determined.

#### Change in condition

**Initial boiling point and boiling range:** 77 °C

\* **Flash point:** -4 °C

**Flammability (solid, gas):** Not applicable.

\* **Ignition temperature:** Undetermined.

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Not determined.

**Explosive properties:** Not determined.

#### Explosion limits:

\* **Lower:** Not determined.

\* **Upper:** Not determined.

\* **Vapour pressure:** Not determined.

**Density:** 0,8800 g/cm<sup>3</sup>

#### Solubility in / Miscibility with

**water:** Not determined.

#### Viscosity:

· Not determined.

· Not determined.

#### 9.2 Other information

No further relevant information available.

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**SECTION 10: Stability and reactivity**

- **10.1 Reactivity**  
No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
No dangerous reactions known.
- **10.4 Conditions to avoid**  
No further relevant information available.
- **10.5 Incompatible materials:**  
No further relevant information available.
- **10.6 Hazardous decomposition products:**  
No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity**
- **LD/LC50 values relevant for classification:**
- \* **100-41-4 ethylbenzene**  
Oral, LD50: 3500 mg/kg (rat)  
Dermal, LD50: 17800 mg/kg (Rabbit)
- \* **108-88-3 toluene**  
Oral, LD50: 5000 mg/kg (rat)  
Dermal, LD50: 12124 mg/kg (Rabbit)  
Inhalative, LC50/4h: 5320 mg/l (mouse)
- \* **1330-20-7 xylene**  
Oral, LD50: 4300 mg/kg (rat)  
Dermal, LD50: 2000 mg/kg (Rabbit)
- \* **123-86-4 n-butyl acetate**  
Oral, LD50: 13100 mg/kg (rat)  
Dermal, LD50: >5000 mg/kg (Rabbit)  
Inhalative, LC50/4h: >21 mg/l (rat)
- \* **141-78-6 ethyl acetate**  
Oral, LD50: 5620 mg/kg (Rabbit)  
Inhalative, LC50/4h: 1600 mg/l (rat)
- **Primary irritant effect:**
- Skin corrosion/irritation  
Irritant to skin and mucous membranes.
- Serious eye damage/irritation  
No irritating effect.
- **Respiratory or skin sensitisation**  
No sensitising effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant  
The product can cause deformations.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Repr. 2

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- Aquatic toxicity:  
No further relevant information available.
- **12.2 Persistence and degradability**  
No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3 Bioaccumulative potential**  
No further relevant information available.

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- 12.4 Mobility in soil  
No further relevant information available.
- **Additional ecological information:**
- *General notes:*  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- *PBT:*  
Not applicable.
- *vPvB:*  
Not applicable.
- **12.6 Other adverse effects**  
No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- *European and swiss waste code*  
08  
WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS  
08 01  
wastes from MFSU and removal of paint and varnish  
08 01 11  
\* waste paint and varnish containing organic solvents or other hazardous substances
- **Uncleaned packaging:**
- *Recommendation:*  
Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN-Number**
- ADR** UN1263
- IMDG** UN1263
- IATA** UN1263
- **14.2 UN proper shipping name**
- ADR** 1263 PAINT RELATED MATERIAL
- IMDG** PAINT RELATED MATERIAL
- IATA** PAINT RELATED MATERIAL
- **14.3 Transport hazard class(es)**
- ADR**
- Class** 3 Flammable liquids.
- Label**



- IMDG**
- Class** 3 Flammable liquids.

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**Label****IATA****Class**

3 Flammable liquids.

**Label**

- **14.4 Packing group**

**ADR** II**IMDG** II**IATA** II

- **14.5 Environmental hazards:**

Not applicable.

- **14.6 Special precautions for user**

Warning: Flammable liquids.

**Danger code (Kemler):** 33**EMS Number:** F-E,S-E

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

- **Transport/Additional information:**

Not applicable.

**Excepted quantities (EQ):** E2**Limited quantities (LQ)** 5L**Transport category** 2**Tunnel restriction code** D/E**IMDG****Limited quantities (LQ)** 5L**Excepted quantities (EQ)** E2

- **UN "Model Regulation":**

UN 1263 PAINT RELATED MATERIAL, 3, II

## SECTION 15: Regulatory information

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

REGULATION (EC) No 1907/2006 ANNEX XVII

\* Conditions of restriction: 3, 40, 48

- **National regulations:**

- **Classification according to VbF:**

-

- **Technical instructions (air):**

- **Class Share in %**

\* II 31,00

\* III 50,00

- **Waterhazard class:**

Water hazard class 2 (Self-assessment): hazardous for water.

- **15.2 Chemical safety assessment:**

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A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

- **Department issuing MSDS:**

Environment protection department.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- \* *Data compared to the previous version altered.*