Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

*

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

· **1.1 Product identifier**

· **Trade name: 2 V 16 VERHARDER**

· **Article number:** 2V16-1
· **UFI:** G75C-61MJ-K00H-HT0T
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU19 Building and construction work
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
· **Product category** PC9a Coatings and paints, thinners, paint removers
· **Process category**
PROC7 Industrial spraying
PROC10 Roller application or brushing
PROC19 Manual activities involving hand contact
PROC13 Treatment of articles by dipping and pouring
· **Application of the substance / the mixture** solvent based, two component epoxy coating hardener

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Zandleven Coatings B.V.
Snekertrekweg 57-59, 8912 AA Leeuwarden, Netherlands
Tel: +31 58 2129545 Fax: +31 58 2155996
E-mail: info@zandleven.com Internet: www.zandleven.com

· **Further information obtainable from:** R&D department: sds@zandleven.com
· **1.4 Emergency telephone number:**
Nationaal Vergiftigingen Informatie
+31 (0)88 755 8000
ORFILA (INRS) : + 33 (0)1 45 42 59 59
Centres Antipoison et de Toxicovigilance
ANGERS: 02 41 48 21 21
BORDEAUX: 05 56 96 40 80
LILLE: 0800 59 59 59
LYON: 04 72 11 69 11
MARSEILLE: 04 91 75 25 25
NANCY: 03 83 22 50 50
PARIS: 01 40 05 48 48
STRASBOURG: 03 88 37 37 37
TOULOUSE: 05 61 77 74 47
Giftnotruf der Charité, Berlin: 030/19240
Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) :0551/19 240
Informationszentrale gegen Vergiftungen Zentrum für Kinderheilkunde Universitätsklinikum Bonn: 0228/19240
Giftnotruf Erfurt Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen: 0361/730 730
Informations- und Beratungszentrum für Vergiftungsfälle Klinik für Kinder- und Jugendmedizin Universitätsklinikum des Saarlandes: 06841/19240
Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen - Klinische Toxikologie - Universitätsmedizin der Johannes Gutenberg-Universität Mainz: 06131/19240
Vergiftungs-Informations-Zentrale Zentrum für Kinder- und Jugendmedizin Universitätsklinikum: 0761/19240
Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik: 089/19240
Supplier
+31 (0)58 2677590 (during office hours)

*

SECTION 2: Hazards identification

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

Flam. Liq. 3	H226 Flammable liquid and vapour.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Dam. 1	H318 Causes serious eye damage.
STOT SE 3	H335 May cause respiratory irritation.

(Contd. on page 2)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 1)

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS02 GHS05 GHS07 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
butan-1-ol
xylene
· **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.
· **Precautionary statements**
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Additional information:**
EUH208 Contains Amines, polyethylenepoly-, triethylenetetramine fraction. May produce an allergic reaction.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

*
SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**
Percentages of the components are expressed as a percentage by weight

CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	xylene Flam. Liq. 3, H226; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10-25%
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6 Reg.nr.: 02-2119484630-38	butan-1-ol Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	2.5-25%

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 2)

CAS: 445498-00-0 EC number: 610-196-5	formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	2.5-10%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Aquatic Chronic 3, H412	2.5-10%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0 Reg.nr.: 01-2119560597-27	2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-10%
CAS: 90640-67-8 EINECS: 292-588-2 Reg.nr.: 01-2119487919-13	Amines, polyethylenepoly-, triethylenetetramine fraction Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	0-<1%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

*

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately rinse with water.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** If symptoms persist consult 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 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, 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** No further relevant information available.
· **5.3 Advice for firefighters**
· **Protective equipment:** No special measures required.

*

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
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).
Use neutralising agent.
Dispose contaminated material as waste according to section 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.

(Contd. on page 4)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 3)

See Section 13 for disposal information.

*
SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **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 material in original, well-closed packages in a cool, well-ventilated area according to local regulations.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep container tightly sealed.
· **Recommended storage temperature:** 5 - 30 °C
· **7.3 Specific end use(s)** No further relevant information available.

*
SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
1330-20-7 xylene	
IOELV	Short-term value: 442 mg/m³, 100 ppm Long-term value: 221 mg/m³, 50 ppm Skin
100-41-4 ethylbenzene	
IOELV	Short-term value: 884 mg/m³, 200 ppm Long-term value: 442 mg/m³, 100 ppm Skin

· **DNEL (Derived No Effect Level) for workers:**		
1330-20-7 xylene		
Dermal	Long-term - systemic effects, worker	212 mg/kg bw/day (worker)
Inhalative	Acute - systemic effects, worker	442 mg/m³ (worker)
	Acute - local effects, worker	442 mg/m³ (worker)
	Long-term - systemic effects, worker	221 mg/m³ (worker)
	Long-term - local effects, worker	221 mg/m³ (worker)
71-36-3 butan-1-ol		
Inhalative	Long-term - local effects, worker	310 mg/m³ (worker)
100-41-4 ethylbenzene		
Dermal	Long-term - systemic effects, worker	180 mg/kg bw/day (worker)
Inhalative	Acute - local effects, worker	293 mg/m³ (worker)
	Long-term - systemic effects, worker	77 mg/m³ (worker)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Dermal	Acute - systemic effects, worker	0.6 mg/kg bw/day (worker)
	Long-term - systemic effects, worker	0.15 mg/kg bw/day (worker)
Inhalative	Acute - systemic effects, worker	2.1 mg/m³ (worker)
	Long-term - systemic effects, worker	0.53 mg/m³ (worker)
90640-67-8 Amines, polyethylenepoly-, triethylenetetramine fraction		
Inhalative	Long-term - systemic effects, worker	0.54 mg/m³ (worker)

(Contd. on page 5)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 4)

· **DNEL (Derived No Effect Level) for the general polulation:**

1330-20-7 xylene		
Oral	Long-term - systemic effects, general population	12.5 mg/kg bw/day (general population)
Dermal	Long-term - systemic effects, general population	125 mg/kg bw/day (general population)
Inhalative	Acute - systemic effects, general population	260 mg/m³ (general population)
	Acute - local effects, general population	260 mg/m³ (general population)
	Long-term - systemic effects, general population	65.3 mg/m³ (general population)
	Long-term - local effects, general population	65.3 mg/m³ (general population)
71-36-3 butan-1-ol		
Oral	Long-term - systemic effects, general population	3.125 mg/kg bw/day (general population)
Inhalative	Long-term - local effects, general population	55 mg/m³ (general population)
100-41-4 ethylbenzene		
Oral	Long-term - systemic effects, general population	1.6 mg/kg bw/day (general population)
Inhalative	Long-term - systemic effects, general population	15 mg/m³ (general population)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Oral	Long-term - systemic effects, general population	0.075 mg/kg bw/day (general population)
Dermal	Acute - systemic effects, general polulation	0.075 mg/kg bw/day (general population)
	Long-term - systemic effects, general population	0.075 mg/kg bw/day (general population)
Inhalative	Acute - systemic effects, general population	0.13 mg/m³ (general population)
	Long-term - systemic effects, general population	0.13 mg/m³ (general population)
90640-67-8 Amines, polyethylenepoly-, triethylenetetramine fraction		
Oral	Long-term - systemic effects, general population	0.14 mg/kg bw/day (general population)
Inhalative	Long-term - systemic effects, general population	0.096 mg/m³ (general population)

· **PNEC (Predicted No Effect Concentration) values:**

1330-20-7 xylene	
Aquatic compartment - freshwater	0.327 mg/L (freshwater)
Aquatic compartment - marine water	0.327 mg/L (marine water)
Aquatic compartment - water, intermittent releases	0.327 mg/L (intermittent release water)
Aquatic compartment - sediment in freshwater	12.46 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	12.46 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	2.31 mg/kg dw (soil)
Sewage treatment plant	6.58 mg/L (sewage treatment plant)
71-36-3 butan-1-ol	
Aquatic compartment - freshwater	0.082 mg/L (not specified)
Aquatic compartment - marine water	0.0082 mg/L (not specified)
Aquatic compartment - water, intermittent releases	2.25 mg/L (not specified)
Aquatic compartment - sediment in freshwater	0.178 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	0.0178 mg/kg sed dw (not specified)
Terrestrial compartment - soil	0.015 mg/kg dw (not specified)
Sewage treatment plant	2,476 mg/L (not specified)
100-41-4 ethylbenzene	
Aquatic compartment - freshwater	0.1 mg/L (not specified)
Aquatic compartment - marine water	0.01 mg/L (not specified)
Aquatic compartment - water, intermittent releases	0.1 mg/L (not specified)
Aquatic compartment - sediment in freshwater	13.7 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	1.37 mg/kg sed dw (not specified)
Terrestrial compartment - soil	2.68 mg/kg dw (not specified)
Sewage treatment plant	9.6 mg/L (not specified)
Oral secondary poisoning	0.02 mg/kg food (not specified)

(Contd. on page 6)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 5)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
Aquatic compartment - freshwater	0.046 mg/L (freshwater)
Aquatic compartment - marine water	0.005 mg/L (marine water)
Aquatic compartment - water, intermittent releases	0.46 mg/L (intermittent release water)
Aquatic compartment - sediment in freshwater	0.262 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	0.025 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	0.025 mg/kg dw (soil)
Sewage treatment plant	0.2 mg/L (sewage treatment plant)
90640-67-8 Amines, polyethylenepoly-, triethylenetetramine fraction	
Aquatic compartment - freshwater	0.027 mg/L
Aquatic compartment - marine water	0.003 mg/L
Aquatic compartment - sediment in freshwater	8.572 mg/kg sed dw
Aquatic compartment - sediment in marine water	0.857 mg/kg sed dw
Terrestrial compartment - soil	1.25 mg/kg dw (soil)
Sewage treatment plant	0.13 mg/L (sewage treatment plant)

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

· **8.2 Exposure controls**
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne
contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Provide readily accessible eye wash stations and safety showers.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
· **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.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If
workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed
respirator complying with an approved standard if a risk assessment indicates this is necessary.
For organic vapors and solvents type of filter A1 or A2, for dust type of filter P (according to EN 140)
· **Hand protection**

Protective gloves

Chemical resistant gloves (EN 374)
Check protective gloves prior to each use for their proper condition.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **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.
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
· **Penetration time of glove material**
KCL Vitoject 890
breakthrough time > 480 min.

(Contd. on page 7)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 6)

thickness: 0,7 mm

at limited contact
KCL Camatril 730
breakthrough time 30 min.
thickness: 0,4 mm
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** All other materials

· **Eye/face protection**

Tightly sealed goggles

Safety glasses according to EN 166 or equivalent

· **Body protection:**
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved before the product is used by a specialist.
If there is a risk of ignition by static electricity, anti-static protective clothing should be worn. For the best protection against static discharge, clothing should consist of anti-static overalls, boots and gloves.
For further information on materials and design requirements and test methods consult the European standard EN 1149.

· **Environmental exposure controls**
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

*

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Physical state**	Liquid
· **Colour:**	According to product specification
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	116-118 °C (71-36-3 butan-1-ol)
· **Flammability**	Flammable.
· **Lower and upper explosion limit**	
· **Lower:**	1.1 Vol % (1330-20-7 xylene)
· **Upper:**	9.4 Vol % (71-36-3 butan-1-ol)
· **Flash point:**	33 °C
· **Auto-ignition temperature:**	340 °C (71-36-3 butan-1-ol)
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity**	at 40 °C: > 20,5 mm²/s
· **Dynamic at 20 °C:**	2,000 mPas
· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 20 °C:**	10 hPa (71-36-3 butan-1-ol)
· **Density and/or relative density**	
· **Density at 20 °C:**	0.95 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

(Contd. on page 8)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 7)

· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Change in condition**	
· **Evaporation rate**	Not determined.

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Flammable liquid and vapour.
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

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 hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
1330-20-7 xylene		
Oral	LD50	3,523 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
71-36-3 butan-1-ol		
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/l (rat)
100-41-4 ethylbenzene		
Oral	LD50	3,500 mg/kg (rat)

(Contd. on page 9)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 8)

Dermal	LD50	17,800 mg/kg (rabbit)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Oral	LD50	2,169 mg/kg (rat)
90640-67-8 Amines, polyethylenepoly-, triethylenetetramine fraction		
Oral	LD50	1,716 mg/kg (rat)
Dermal	LD50	1,465 mg/kg (rabbit)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye damage.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** May cause respiratory irritation.
· **STOT-repeated exposure** 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**
None of the ingredients is listed.

*
SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
1330-20-7 xylene	
EC50/72 h	2.2 mg/l (algae)
EC50/48 h	>3.4 mg/l (Ceriodaphnia dubia)
LC50/96 h	2.6 mg/l (Oncorhynchus mykiss)
LC50/24 h	1 mg/l (Daphnia magna)
71-36-3 butan-1-ol	
EC50/48 h	1,328 mg/l (Daphnia magna)
LC50/96 h	1,376 mg/l (pimephales promelas)
100-41-4 ethylbenzene	
EC50/72 h	3.6-4.2 mg/l (algae)
EC50/24 h	2.2 mg/l (Daphnia magna)
LC50/96 h	4.2 mg/l (Oncorhynchus mykiss)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
EC50/96 h	718 mg/l (Palaemonetes vulgaris (grass shrimp))
EC50/72 h	84 mg/l (algae)
LC50/96 h	175 mg/l (Cyprinus carpio)
LC50/24 h	249 mg/l (Cyprinus carpio)
	222 mg/l (Oncorhynchus mykiss)

· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **Remark:** Toxic for fish

(Contd. on page 10)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 9)

· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

SECTION 13: Disposal considerations

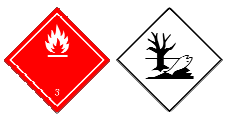
· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP14	Ecotoxic

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

Transport in accordance with ADR/RID, IMDG and ICAO/IATA.

· **14.1 UN number or ID number**	
· **ADR/RID/ADN, IMDG, IATA**	UN1263
· **14.2 UN proper shipping name**	
· **ADR/RID/ADN**	1263 PAINT, ENVIRONMENTALLY HAZARDOUS
· **IMDG**	PAINT, MARINE POLLUTANT
· **IATA**	PAINT
· **14.3 Transport hazard class(es)**	
· **ADR/RID/ADN, IMDG**	
· **Class**	3 Flammable liquids.
· **Label**	3
· **IATA**	
· **Class**	3 Flammable liquids.

(Contd. on page 11)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 10)

· **Label**	3
· **14.4 Packing group** · **ADR/RID/ADN, IMDG, IATA**	 III
· **14.5 Environmental hazards:** · **Marine pollutant:** · **Special marking (ADR/RID/ADN):**	 Yes Symbol (fish and tree) Symbol (fish and tree)
· **14.6 Special precautions for user** · **Hazard identification number (Kemler code):** · **EMS Number:** · **Stowage Category**	Warning: Flammable liquids. 30 F-E,S-E A
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **Transport/Additional information:**	
· **ADR/RID/ADN** · **Limited quantities (LQ)** · **Excepted quantities (EQ)** · **Transport category** · **Tunnel restriction code**	 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 D/E
· **IMDG** · **Limited quantities (LQ)** · **Excepted quantities (EQ)**	 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

*

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

108-88-3	toluene	3

(Contd. on page 12)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 21 (replaces version 20) Revision: 06.02.2025

Trade name: 2 V 16 VERHARDER

(Contd. of page 11)

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

108-88-3	toluene	3

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

*

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.

· **Classification according to Regulation (EC) No 1272/2008**
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
· **Contact:** J. Dijkstra
· **Date of previous version:** 20.04.2023
· **Version number of previous version:** 20
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· **Sources**
- ECHA European Chemical Agency - http://echa.europa.eu/information-on-chemicals
- SDS of raw materials supplied by producer/supplier.
· *** Data compared to the previous version altered.**