



Safety data sheet

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

Printing date 06.02.2025

Version: 41 (replaces version 40)

Revision: 06.02.2025

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

- **1.1 Product identifier**
 - **Trade name:** 2 V 1 VERHARDER
 - **Article number:** 2V1
 - **UFI:** 1CXA-Q1DT-200X-KGDN
- **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 polyurethane 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.
 - Acute Tox. 4 H332 Harmful if inhaled.
 - Skin Irrit. 2 H315 Causes skin irritation.
 - Eye Irrit. 2 H319 Causes serious eye irritation.

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Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

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 GHS07

Signal word Warning

Hazard-determining components of labelling:

Aliphatic polyisocyanate
xylene
ethylbenzene
hexamethylene-di-isocyanate

Hazard statements

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

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.
P312 Call a POISON CENTER/doctor if you feel unwell.
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:

EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

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: 28182-81-2	Aliphatic polyisocyanate	25-50%
NLP: 500-060-2	⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335,	
Reg.nr.: 01-2119488934-20	EUH204	

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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	25-50%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	10-25%
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: 822-06-0 EINECS: 212-485-8 Index number: 615-011-00-1 Reg.nr.: 01-2119457571-37	hexamethylene-di-isocyanate ⚠ Acute Tox. 1, H330; ⚠ Resp. Sens. 1, H334; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Resp. Sens. 1; H334: C ≥ 0.5 % Skin Sens. 1; H317: C ≥ 0.5 %	<1%
CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3 Reg.nr.: 01-2119471310-51	toluene ⚠ Flam. Liq. 2, H225; ⚠ Repr. 2, H361d; STOT RE 2, H373; ⚠ Asp. Tox. 1, H304; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	<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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

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. If symptoms persist, 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: Mouth respiratory protective device.

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 to enter sewers/ surface or ground water.

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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 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.
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/m ³ , 100 ppm
	Long-term value: 221 mg/m ³ , 50 ppm
	Skin

108-65-6 2-methoxy-1-methylethyl acetate

IOELV	Short-term value: 550 mg/m ³ , 100 ppm
	Long-term value: 275 mg/m ³ , 50 ppm
	Skin

100-41-4 ethylbenzene

IOELV	Short-term value: 884 mg/m ³ , 200 ppm
	Long-term value: 442 mg/m ³ , 100 ppm
	Skin

108-88-3 toluene

IOELV	Short-term value: 384 mg/m ³ , 100 ppm
	Long-term value: 192 mg/m ³ , 50 ppm
	Skin

DNEL (Derived No Effect Level) for workers:**28182-81-2 Aliphatic polyisocyanate**

Inhalative	Acute - local effects, worker	1 mg/m ³ (worker)
	Long-term - local effects, worker	0.5 mg/m ³ (worker)

1330-20-7 xylene

Dermal	Long-term - systemic effects, worker	212 mg/kg bw/day (worker)
Inhalative	Acute - systemic effects, worker	442 mg/m ³ (worker)
	Acute - local effects, worker	442 mg/m ³ (worker)
	Long-term - systemic effects, worker	221 mg/m ³ (worker)

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	Long-term - local effects, worker	221 mg/m ³ (worker)
108-65-6 2-methoxy-1-methylethyl acetate		
Dermal	Long-term - systemic effects, worker	153.5 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects, worker	275 mg/m ³ (worker)
100-41-4 ethylbenzene		
Dermal	Long-term - systemic effects, worker	180 mg/kg bw/day (worker)
Inhalative	Acute - local effects, worker	293 mg/m ³ (worker)
	Long-term - systemic effects, worker	77 mg/m ³ (worker)
822-06-0 hexamethylene-di-isocyanate		
Inhalative	Acute - local effects, worker	0.07 mg/m ³ (worker)
	Long-term - local effects, worker	0.035 mg/m ³ (worker)
108-88-3 toluene		
Dermal	Long-term - systemic effects, worker	384 mg/kg bw/day (worker)
Inhalative	Acute - systemic effects, worker	384 mg/m ³ (worker)
	Acute - local effects, worker	384 mg/m ³ (worker)
	Long-term - systemic effects, worker	192 mg/m ³ (worker)
	Long-term - local effects, worker	192 mg/m ³ (worker)

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

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/m ³ (general population)
	Acute - local effects, general population	260 mg/m ³ (general population)
	Long-term - systemic effects, general population	65.3 mg/m ³ (general population)
	Long-term - local effects, general population	65.3 mg/m ³ (general population)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	Long-term - systemic effects, general population	1.67 mg/kg bw/day (general population)
Dermal	Long-term - systemic effects, general population	54.8 mg/kg bw/day (general population)
Inhalative	Long-term - systemic effects, general population	33 mg/m ³ (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/m ³ (general population)
108-88-3 toluene		
Oral	Long-term - systemic effects, general population	8.13 mg/kg bw/day (general population)
Dermal	Long-term - systemic effects, general population	226 mg/kg bw/day (general population)
Inhalative	Acute - systemic effects, general population	226 mg/m ³ (general population)
	Acute - local effects, general population	226 mg/m ³ (general population)
	Long-term - systemic effects, general population	56.5 mg/m ³ (general population)
	Long-term - local effects, general population	56.5 mg/m ³ (general population)

· PNEC (Predicted No Effect Concentration) values:

28182-81-2 Aliphatic polyisocyanate		
Aquatic compartment - freshwater		0.127 mg/L (freshwater)
Aquatic compartment - marine water		0.013 mg/L (marine water)
Aquatic compartment - water, intermittent releases		1.27 mg/L (intermittent release water)
Aquatic compartment - sediment in freshwater		266,701 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water		26,670 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil		53,183 mg/kg dw (soil)
Sewage treatment plant		88 mg/L (sewage treatment plant)
1330-20-7 xylene		
Aquatic compartment - freshwater		0.327 mg/L (freshwater)

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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)
108-65-6 2-methoxy-1-methylethyl acetate	
Aquatic compartment - freshwater	0.635 mg/L (not specified)
Aquatic compartment - marine water	0.0635 mg/L (not specified)
Aquatic compartment - water, intermittent releases	6.35 mg/L (not specified)
Aquatic compartment - sediment in freshwater	3.29 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	0.329 mg/kg sed dw (not specified)
Terrestrial compartment - soil	0.29 mg/kg dw (not specified)
Sewage treatment plant	100 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)
822-06-0 hexamethylene-di-isocyanate	
Aquatic compartment - freshwater	0.049 mg/L (freshwater)
Aquatic compartment - marine water	0.005 mg/L (marine water)
Aquatic compartment - sediment in freshwater	0.674 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	0.067 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	0.523 mg/kg dw (soil)
Sewage treatment plant	8.42 mg/L (sewage treatment plant)
108-88-3 toluene	
Aquatic compartment - freshwater	0.68 mg/L (not specified)
Aquatic compartment - marine water	0.68 mg/L (not specified)
Aquatic compartment - water, intermittent releases	0.68 mg/L (not specified)
Aquatic compartment - sediment in freshwater	16.39 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	16.39 mg/kg sed dw (not specified)
Terrestrial compartment - soil	2.89 mg/kg dw (not specified)
Sewage treatment plant	13.61 mg/L (not specified)

· **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 eyes and skin.

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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 Camatril 730

breakthrough time > 480 min.

thickness: 0,4 mm

The exact break through 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:

Neoprene gloves

Disposables

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

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· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	136 °C (100-41-4 ethylbenzene)
· Flammability	Flammable.
· Lower and upper explosion limit	
· Lower:	1.1 Vol % (1330-20-7 xylene)
· Upper:	10.8 Vol % (108-65-6 2-methoxy-1-methylethyl acetate)
· Flash point:	33 °C
· Auto-ignition temperature:	315 °C (108-65-6 2-methoxy-1-methylethyl acetate)
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	at 40 °C: > 20,5 mm ² /s
· Dynamic at 20 °C:	100 mPas
· Solubility	
· water:	Reacts.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	6.7-8.2 hPa (1330-20-7 xylene)
· Density and/or relative density	
· Density at 20 °C:	1 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 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

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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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if inhaled.

· LD/LC50 values relevant for classification:

28182-81-2 Aliphatic polyisocyanate

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
		>2,000 mg/kg (rabbit)

1330-20-7 xylene

Oral	LD50	3,523 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

108-65-6 2-methoxy-1-methylethyl acetate

Oral	LD50	8,532 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)

100-41-4 ethylbenzene

Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)

822-06-0 hexamethylene-di-isocyanate

Oral	LD50	746 mg/kg (rat)
Dermal	LD50	>7,000 mg/kg (rat)
Inhalative	LC50/4 h	0.124 mg/l (rat)

108-88-3 toluene

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	5,320 mg/l (mouse)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **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.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

28182-81-2 Aliphatic polyisocyanate

EC50/72 h	>100 mg/l (algae)
EC50/48 h	>100 mg/l (Daphnia magna)
LC50/96 h	>100 mg/l (Danio rerio (zebra fish))

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)

108-65-6 2-methoxy-1-methylethyl acetate

EC50/48 h	408-500 mg/l (Daphnia magna)
LC50/96 h	100-180 mg/l (Oncorhynchus mykiss)

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)

822-06-0 hexamethylene-di-isocyanate

EC50/72 h	77.4 mg/l (aquatic algae and cyanobacteria)
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108-88-3 toluene

EC50/72 h	12.5 mg/l (algae)
EC50/48 h	3.8 mg/l (Daphnia magna)
EC50/24 h	84 mg/l (microorganisms)
LC50/96 h	5.5 mg/l (Oncorhynchus kisutch)
LC50/48 h	15.5-310 mg/l (crustaceans)

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

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.
Danger to drinking water if even small quantities leak into the ground.

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

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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
HP13	Sensitising

· **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	UN1263
· ADR/RID/ADN, IMDG, IATA	
· 14.2 UN proper shipping name	1263 PAINT
· ADR/RID/ADN	PAINT
· IMDG, IATA	
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN, IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E,S-E
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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· UN "Model Regulation":

UN 1263 PAINT, 3, III

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 P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 48, 74

· 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

· 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: 19.04.2023

· Version number of previous version: 40

· 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. 1: Acute toxicity – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2
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 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.**

EU