



Safety data sheet

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

Printing date 06.02.2025

Version: 13 (replaces version 12)

Revision: 06.02.2025

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

1.1 Product identifier

Trade name: **MONOCHLOR SF-DUPLEX**

Article number: C39-1

UFI: WX0D-M190-U00E-7Y7V

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, one component chlorinated rubber coating

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

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Informations- und Beratungszentrum für Vergiftungsfälle Klinik für Kinder- und Jugendmedizin

Universitätsklinikum des Saarlandes: 06841/19240

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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.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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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

Signal word Warning

Hazard statements

H226 Flammable liquid and vapour.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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 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: 128601-23-0 EC number: 918-668-5 Reg.nr.: 01-2119455851-35	C9-aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Acute Tox. 4, H312; STOT SE 3, H335-H336, EUH066	10-25%
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	2.5-10%
EC number: 919-857-5 Reg.nr.: 01-2119463258-33	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336, EUH066	2.5-10%
CAS: 112-07-2 EINECS: 203-933-3 Index number: 607-038-00-2 Reg.nr.: 01-2119475112-47	2-butoxyethyl acetate Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	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	1-2.5%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32	Zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<1%

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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

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<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:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **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).

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

Use only in well ventilated areas.

· 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.

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- **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

112-07-2 2-butoxyethyl acetate

IOELV	Short-term value: 333 mg/m ³ , 50 ppm
	Long-term value: 133 mg/m ³ , 20 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:

128601-23-0 C9-aromatics

Dermal	Long-term - systemic effects, worker	12.5 mg/kg bw/day (human)
Inhalative	Long-term - systemic effects, worker	151 mg/m ³ (human)

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)
	Long-term - local effects, worker	221 mg/m ³ (worker)

112-07-2 2-butoxyethyl acetate

Dermal	Acute - systemic effects, worker	102 mg/kg bw/day (worker)
	Long-term - systemic effects, worker	102 mg/kg bw/day (worker)
Inhalative	Acute - systemic effects, worker	775 mg/m ³ (worker)
	Long-term - systemic effects, worker	133 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)

1314-13-2 Zinc oxide

Dermal	Long-term - systemic effects, worker	83 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects, worker	5 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)

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· DNEL (Derived No Effect Level) for the general population:**128601-23-0 C9-aromatics**

Oral	Long-term - systemic effects, general population	7.5 mg/kg bw/day (human)
Dermal	Long-term - systemic effects, general population	7.5 mg/kg bw/day (human)
Inhalative	Long-term - systemic effects, general population	32 mg/m ³ (human)

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)

112-07-2 2-butoxyethyl acetate

Oral	Acute - systemic effects, general population	18 mg/kg bw/day (general population)
	Long-term - systemic effects, general population	4.3 mg/kg bw/day (general population)
Dermal	Acute - systemic effects, general population	27 mg/kg bw/day (general population)
	Long-term - systemic effects, general population	36 mg/kg bw/day (general population)
Inhalative	Acute - systemic effects, general population	499 mg/m ³ (general population)
	Acute - local effects, general population	166 mg/m ³ (general population)
	Long-term - systemic effects, general population	67 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)

1314-13-2 Zinc oxide

Oral	Long-term - systemic effects, general population	0.83 mg/kg bw/day (general population)
Dermal	Long-term - systemic effects, general population	83 mg/kg bw/day (general population)
Inhalative	Long-term - systemic effects, general population	2.5 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:**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)

112-07-2 2-butoxyethyl acetate

Aquatic compartment - freshwater	0.304 mg/L
Aquatic compartment - marine water	0.0304 mg/L
Aquatic compartment - water, intermittent releases	0.56 mg/L
Aquatic compartment - sediment in freshwater	2.03 mg/kg sed dw
Aquatic compartment - sediment in marine water	0.203 mg/kg sed dw
Terrestrial compartment - soil	0.68 mg/kg dw (not specified)

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Sewage treatment plant	90 mg/L
Oral secondary poisoning	60 mg/kg food
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)
1314-13-2 Zinc oxide	
Aquatic compartment - freshwater	0.0206 mg/L (not specified)
Aquatic compartment - marine water	0.0061 mg/L (not specified)
Aquatic compartment - sediment in freshwater	117.8 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	56.5 mg/kg sed dw (not specified)
Terrestrial compartment - soil	35.6 mg/kg dw (not specified)
Sewage treatment plant	0.1 mg/L (not specified)
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.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

• **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.
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.

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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 / Best Nitri-solve 730

breakthrough time > 240 min.

thickness: 0,4 / 0,38 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: 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

Odour:

Characteristic

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

Boiling point or initial boiling point and boiling range

36 °C (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics)

Flammable.

Flammability**Lower and upper explosion limit****Lower:**

0.7 Vol % (Hydrocarbons, C9, aromatics)

Upper:

7.5 Vol % (Hydrocarbons, C9, aromatics)

Flash point:

30 °C

Auto-ignition temperature:

280 °C (112-07-2 2-butoxyethyl acetate)

Decomposition temperature:

Not determined.

pH

Not determined.

Viscosity:**Kinematic viscosity**

at 40 °C: > 20,5 mm²/s

Dynamic at 20 °C:

2,350 mPas

Solubility**water:**

Not miscible or difficult to mix.

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- | | |
|-----------------------------------------------------|-------------------------------------|
| · Partition coefficient n-octanol/water (log value) | Not determined. |
| · Vapour pressure at 20 °C: | 2 hPa (Hydrocarbons, C9, aromatics) |
| · Density and/or relative density | |
| · Density at 20 °C: | >1.43-<1.45 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 |

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:

128601-23-0 C9-aromatics

Oral	LD50	5,558-7,093 mg/kg (rat)
Dermal	LD50	2,000-3,160 mg/kg (rabbit)

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1330-20-7 xylene

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rab)

112-07-2 2-butoxyethyl acetate

Oral	LD50	1,880 mg/kg (rat)
Dermal	LD50	1,480 mg/kg (rabbit)

100-41-4 ethylbenzene

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

1314-13-2 Zinc oxide

Oral	LD50	>5,000 mg/kg (rat)
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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** Based on available data, the classification criteria are not met.· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.· **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** Based on available data, the classification criteria are not met.· **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**

115-86-6 triphenyl phosphate

List I

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)

112-07-2 2-butoxyethyl acetate

EC50/72 h	1,570 mg/l (Pseudokirchnerella subcapitata)
EC50/48 h	37 mg/l (Daphnia magna)
EC50/24 h	>100 mg/l (crab)
LC50/96 h	28.3 mg/l (Oncorhynchus mykiss)
EC10/168 h	30.4 mg/l (Ceriodaphnia dubia)

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)

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1314-13-2 Zinc oxide

EC50/72 h	0.21 mg/l (algae)
EC50/48 h	0.67 mg/l (Ceriodaphnia dubia)

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** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Remark:** Harmful to fish
- **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.
 - Harmful to 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
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	Void
· IATA	UN1263
· 14.2 UN proper shipping name	
· ADR/RID/ADN, IMDG	Void
· IATA	PAINT

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· 14.3 Transport hazard class(es)

· ADR/RID/ADN, ADN, IMDG

· Class

Void

· IATA



· Class

3 Flammable liquids.

· Label

3

· 14.4 Packing group

· ADR/RID/ADN, IMDG

Void

· IATA

III

· 14.5 Environmental hazards:

Not applicable.

· 14.6 Special precautions for user

Not applicable.

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· Transport/Additional information:

· ADR/RID/ADN

· Remarks:

Up to 450 litre exempted according to ADR 2.2.3.1.5.

· IMDG

· Remarks:

Up to 450 litre: Transport in accordance with Packs 2.3.2.5 of the IMDG Code.

· IATA

· Remarks:

The "viscosity exemption" provisions do NOT apply to air transport.

· UN "Model Regulation":

Void

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

· 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

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· **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:** 12

· **Abbreviations and acronyms:**

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 Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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 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.**