

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 19.06.2019

V- 1.0

Revision: 19.06.2019

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

1.1 Product identifier

Trade name: 4.2 VOC Clear Coat 4:1

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses: professional use.
Application of the substance / the mixture Clear coating material, Varnish

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Chemical Alliance Polska Sp. z o.o.
ul. Prosta 23, Łozienica
72-100 Goleniów
Tel. +48 91 41 65 440
info@cap.pl

Further information obtainable from: sds@cap.pl

1.4 Emergency telephone number: +48 91 41 65 440 (8:00-16:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02

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



GHS08

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02



GHS07



GHS08

Signal word Danger

Hazard-determining components of labelling:

xylene

methyl acetate

hydrocarbons, C9, aromatics

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

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Hazard statements

- H225 Highly flammable liquid and vapour.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.
 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.
 P261 Avoid breathing mist/vapours/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 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 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 79-20-9 EINECS: 201-185-2 Reg.nr.: 01-2119459211-47	methyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	xylene ⚠ Flam. Liq. 3, H226; ⚠ STOT RE 2, H373; 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-<20%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226	5-15%
List no.: 918-668-5 Reg.nr.: 01-2119455851-35	hydrocarbons, C9, aromatics ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H335-H336	2.5-10%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	1-7.5%
CAS: 100-41-4 EINECS: 202-849-4 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: 112-07-2 EINECS: 203-933-3 Reg.nr.: 01-2119475112-47	2-butoxyethyl acetate ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332	1-5%
List no.: 915-687-0 Reg.nr.: 01-2119491304-40	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1A, H317	0.1-<0.5%

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

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SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

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

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Take affected persons out of danger area and lay down.

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 wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

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

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

Carbon monoxide and carbon dioxide

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Avoid contact with the eyes and skin.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Do not flush with water or aqueous cleansing agents.

Dispose of the material collected according to regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.

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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.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Do not allow to enter sewers/ surface or ground water.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptacle.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
79-20-9 methyl acetate	
WEL (Great Britain)	Short-term value: 770 mg/m ³ , 250 ppm Long-term value: 616 mg/m ³ , 200 ppm
1330-20-7 xylene	
WEL (Great Britain)	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
IOELV (EU)	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	
WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
IOELV (EU)	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin
123-86-4 n-butyl acetate	
WEL (Great Britain)	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm

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100-41-4 ethylbenzene	
<i>WEL (Great Britain)</i>	Short-term value: 552 mg/m ³ , 125 ppm Long-term value: 441 mg/m ³ , 100 ppm Sk
<i>IOELV (EU)</i>	Short-term value: 884 mg/m ³ , 200 ppm Long-term value: 442 mg/m ³ , 100 ppm Skin
112-07-2 2-butoxyethyl acetate	
<i>WEL (Great Britain)</i>	Short-term value: 332 mg/m ³ , 50 ppm Long-term value: 133 mg/m ³ , 20 ppm Sk
<i>IOELV (EU)</i>	Short-term value: 333 mg/m ³ , 50 ppm Long-term value: 133 mg/m ³ , 20 ppm Skin

Regulatory information*WEL (Great Britain): EH40/2018**IOELV (EU): (EU) 2017/164***DNELs**

79-20-9 methyl acetate	
<i>Dermal</i>	<i>DNEL</i> 88 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 610 mg/m ³ (long-term - systemic effects, workers) 305 mg/m ³ (long-term - local effects, workers)
1330-20-7 xylene	
<i>Dermal</i>	<i>DNEL</i> 180 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 289 mg/m ³ (acute - systemic effects, workers) 289 mg/m ³ (acute - local effects, workers) 77 mg/m ³ (long-term - systemic effects, workers) 77 mg/m ³ (long-term - local effects, workers)
108-65-6 2-methoxy-1-methylethyl acetate	
<i>Dermal</i>	<i>DNEL</i> 153.5 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 275 mg/m ³ (long-term - systemic effects, workers)
hydrocarbons, C9, aromatics	
<i>Dermal</i>	<i>DNEL</i> 25 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 150 mg/m ³ (long-term - systemic effects, workers)
123-86-4 n-butyl acetate	
<i>Dermal</i>	<i>DNEL</i> 7 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 960 mg/m ³ (acute - systemic effects, workers) 960 mg/m ³ (acute - local effects, workers) 480 mg/m ³ (long-term - systemic effects, workers) 480 mg/m ³ (long-term - local effects, workers)
112-07-2 2-butoxyethyl acetate	
<i>Dermal</i>	<i>DNEL</i> 102 mg/kg bw/day (acute - systemic effects, workers) 102 mg/kg bw/day (long-term - systemic effects, workers)
<i>Inhalative</i>	<i>DNEL</i> 775 mg/m ³ (acute - systemic effects, workers) 333 mg/m ³ (acute - local effects, workers) 133 mg/m ³ (long-term - local effects, workers)

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Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
Dermal	DNEL 2.5 mg/kg bw/day (acute - systemic effects, workers) 2.5 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL 2.35 mg/m ³ (acute - systemic effects, workers) 2.35 mg/m ³ (long-term - systemic effects, workers)
PNECs	
79-20-9 methyl acetate	
PNEC	600 mg/l (sewage treatment plants)
PNEC	120 µg/l (freshwater environment) 12 µg/l (marine environment)
PNEC	128 µg/kg (freshwater sediment environment) 128 µg/kg (marine sediment environment)
1330-20-7 xylene	
PNEC	0.327 mg/l (freshwater environment) 6.58 mg/l (sewage treatment plants)
PNEC	12.46 mg/kg (freshwater sediment environment) 2.31 mg/kg (soil)
108-65-6 2-methoxy-1-methylethyl acetate	
PNEC	0.635 mg/l (freshwater environment) 0.0635 mg/l (marine environment) 6.35 mg/l (intermittent releases) 100 mg/l (sewage treatment plants)
PNEC	3.29 mg/kg (freshwater sediment environment) 0.329 mg/kg (marine sediment environment)
123-86-4 n-butyl acetate	
PNEC	0.18 mg/l (freshwater environment) 0.018 mg/l (marine environment) 0.36 mg/l (intermittent releases) 35.6 mg/l (sewage treatment plants)
PNEC	0.981 mg/kg (freshwater sediment environment)
112-07-2 2-butoxyethyl acetate	
PNEC	0.304 mg/l (freshwater environment) 0.0304 mg/l (marine environment) 0.56 mg/l (intermittent releases) 90 mg/l (sewage treatment plants)
PNEC	2.03 mg/kg (freshwater sediment environment) 0.203 mg/kg (marine sediment environment) 0.68 mg/kg (soil)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
PNEC	0.0022 mg/l (freshwater environment) 0.00022 mg/l (marine environment) 0.009 mg/l (intermittent releases)
PNEC	1.05 mg/kg (freshwater sediment environment) 0.11 mg/kg (marine sediment environment)

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	0.21 mg/kg (soil)
Ingredients with biological limit values:	
1330-20-7 xylene	
BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid

Regulatory information BMGV (Great Britain): EH40/2011

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

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Keep ignition sources away - Do not smoke.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

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.

Filter A2/P2

Protection of hands:



Protective gloves

Check the permeability prior to each renewed use of the glove.

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 (EN 374).

Material of gloves

Fluorocarbon rubber (Viton)

Recommended thickness of the material: $\geq 0,7$ mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

Value for the permeation: Level 6 ≥ 480 min.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

Body protection: Protective work clothing

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Colourless/ slightly yellow
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	124-128 °C

Flash point: <23 °C

Flammability (solid, gas): Not applicable.

Decomposition temperature: Not determined.

Auto-ignition temperature: Not determined.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower:	0.7 Vol %
Upper:	15 Vol %

Vapour pressure at 20 °C: 10.7 hPa

Density at 20 °C: 0.96-0.98 g/cm³

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with water:

Not miscible or difficult to mix.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used according to specifications.

No further relevant information available.

10.2 Chemical stability: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Reacts with alkali, amines and strong acids.

Reacts with oxidising agents.

Fumes can combine with air to form an explosive mixture.

10.4 Conditions to avoid: Protect from heat and direct sunlight.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide

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Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: Toxicological information**11.1 Information on toxicological effects***Acute toxicity* Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****79-20-9 methyl acetate**

Oral	LD50	3,705 mg/kg (rabbit)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>49.2 mg/l (rabbit)

1330-20-7 xylene

Oral	ATE	>2,000 mg/kg
Dermal	ATE	1,466.67 mg/kg
Inhalative	ATE	12.09 mg/l (vapour)

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

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/6 h	4,345 mg/l (rat)

hydrocarbons, C9, aromatics

Oral	LD50	3,592 mg/kg (rat)
Dermal	LD50	>3,160 mg/kg
Inhalative	LC50/4 h	>6,193 mg/l (rat)

123-86-4 n-butyl acetate

Oral	LD50	10,760 mg/kg (rat)
Dermal	LD50	>14,000 mg/kg (rabbit)
Inhalative	LC50/4 h	23.4 mg/l (rat)

100-41-4 ethylbenzene

Inhalative	LC50/4 h	11 mg/l (ATE)
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112-07-2 2-butoxyethyl acetate

Oral	LD50	1,880 mg/kg (rat)
Dermal	LD50	1,500 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Oral	LD50	3,230 mg/kg (rat)
Dermal	LD50	>3,170 mg/kg (rat)

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.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)*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. May cause drowsiness or dizziness.

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STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:****1330-20-7 xylene**

LC50/96 h	2.6 mg/l (fish)
IC50/72 h	2.2 mg/l (algae)
EC50/48 h	>1-10 mg/l (<i>Daphnia magna</i>)
EC50/24 h	96 mg/l (microorganisms)

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

LC50/96 h	>100 mg/l (fish)
EC50/48 h	>500 mg/l (<i>Daphnia magna</i>)
EC20/30 min	>1,000 mg/l (microorganisms)
EC50/72 h	>1,000 mg/l (<i>Pseudokirchnerella subcapitata</i>)
EC50	>100 mg/l (<i>Pseudokirchnerella subcapitata</i>) >100 mg/l (<i>Pimephales promelas</i>) >100 mg/l (<i>Daphnia magna</i>)

hydrocarbons, C9, aromatics

ErC50/96 h	9.2 mg/l (fish)
EL50/48 h	3.2 mg/l (<i>Daphnia magna</i>)
ErL50/72 h	2.9 mg/l (<i>Pseudokirchnerella subcapitata</i>)
EC50/48 h	6.14 mg/l (<i>Daphnia magna</i>)
EC50/10 min	>99 mg/l (microorganisms)

123-86-4 n-butyl acetate

LC50/96 h	18 mg/l (<i>Pimephales promelas</i>)
TT/16 h	115 mg/l (<i>Pseudomonas putida</i>)
EC50/48 h	44 mg/l (<i>daphnia</i>)
EC50/72 h	675 mg/l (algae)

112-07-2 2-butoxyethyl acetate

EC50/72 h	>100 mg/l (<i>Scenedesmus subspicatus</i>)
EC50/24 h	>100 mg/l (<i>Daphnia magna</i>)
LC50/48 h	10-100 mg/l (<i>Leuciscus idus melanotus</i>)

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

LC50/96 h	0.97 mg/l (fish)
EC50/3 h	>100 mg/l (microorganisms)
EC50/72 h	1.68 mg/l (<i>Desmodesmus subspicatus</i>)
EC50/24 h	20 mg/l (<i>Daphnia magna</i>)

12.2 Persistence and degradability**1330-20-7 xylene**

Biodegradation >60 % (readily biodegradable) (OECD 301 F, 28 d, aerobic)

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

Biodegradation 100 % (readily biodegradable) (OECD 302 B, 8 d, aerobic)

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hydrocarbons, C9, aromatics	
Biodegradation	78 % (readily biodegradable) (OECD 301 F, 28 d, aerobic)
123-86-4 n-butyl acetate	
Biodegradation	83 % (readily biodegradable) (OECD 301 D, 28 d, aerobic)
112-07-2 2-butoxyethyl acetate	
Biodegradation	>70 % (readily biodegradable) (OECD 301C, 28d)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
Biodegradation	38 % (not readily biodegradable) (OECD 301 F, 28 d, aerobic)
12.3 Bioaccumulative potential	
1330-20-7 xylene	
BCF	25.9
log Pow	3.15
108-65-6 2-methoxy-1-methylethyl acetate	
log Pow	0.56
123-86-4 n-butyl acetate	
BCF	15.3 (-)
log Pow	2.3
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
BCF	<9.7
12.4 Mobility in soil	
108-65-6 2-methoxy-1-methylethyl acetate	
Koc	1.7
123-86-4 n-butyl acetate	
log Koc	1.27
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	
log Koc	5.31
Koc	204,400

Additional ecological information:**General notes:**

Do not allow product to reach ground water, water course or sewage system.

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

Harmful to aquatic organisms

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances

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Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**

14.1 UN-Number ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name ADR IMDG, IATA	1263 PAINT PAINT
14.3 Transport hazard class(es) ADR, IMDG, IATA	 Class 3 Label 3
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user Danger code (Kemler): EMS Number: Stowage Category	Warning: Flammable liquids. 33 F-E,S-E B
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Transport category Tunnel restriction code	5L 2 D/E
IMDG Limited quantities (LQ)	1L
UN "Model Regulation":	UN 1263 PAINT, 3, II

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

National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

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Employment restrictions concerning pregnant and lactating women must be observed.

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.

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Classification according to Regulation (EC) No 1272/2008

<i>Flammable liquids</i>	<i>Bridging principles</i>
<i>Skin corrosion/irritation</i> <i>Serious eye damage/eye irritation</i> <i>Skin sensitisation</i> <i>Specific target organ toxicity (single exposure)</i> <i>Specific target organ toxicity (repeated exposure)</i> <i>Hazardous to the aquatic environment - long-term (chronic) aquatic hazard</i>	<i>The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.</i>

Abbreviations and acronyms:

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

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

Skin Sens. 1: Sensitisation - Skin. Hazard Category 1

Skin Sens. 1A: Sensitisation - Skin. Hazard Category 1A

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 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 European Chemicals Agency, <http://echa.europa.eu/>