

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

Printing date 15.01.2013




V - 3

Revision: 24.04.2012

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

- **Product identifier**
- **Trade name:** **CARSYSTEM 2K - HARDENER WET ON WET**
- **Relevant identified uses of the substance or mixture and uses advised against** Not determined
- **Application of the substance / the preparation** Hardening agent/ Curing agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Vosschemie GmbH
Esinger Steinweg 50
D-25436 Uetersen
Phone: +49 (0)4122 717 0; Fax: +49 (0)4122 717158; info@vosschemie.de
- **Further information obtainable from:**
Abteilung Labor / +49 (0)4122 717 0
s.schaller@vosschemie.de
- **Emergency telephone number:**
Giftinformationszentrum (GIZ)-Nord, Goettingen, Deutschland
Phone: +49 (0)551 19240, +49 (0)551 383180

2 Hazards identification

- **Classification of the substance or mixture**
 - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  **Xn; Harmful**
R20: Harmful by inhalation.
 -  **Xn; Sensitising**
R42/43: May cause sensitisation by inhalation and skin contact.
 -  **Xi; Irritant**
R37: Irritating to respiratory system.
 - R10-66: Flammable. Repeated exposure may cause skin dryness or cracking.
 - **Information concerning particular hazards for human and environment:**
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.
Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms
Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
Has a narcotizing effect.
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
 - **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
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- **Label elements**
 - **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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· Code letter and hazard designation of product:



Xn Harmful

· Hazard-determining components of labelling:

Hexamethylene diisocyanate homopolymer
aromatic polyisocyanate
4-methyl-m-phenylene diisocyanate

· Risk phrases:

10 Flammable.
20 Harmful by inhalation.
37 Irritating to respiratory system.
42/43 May cause sensitisation by inhalation and skin contact.
66 Repeated exposure may cause skin dryness or cracking.

· Safety phrases:

2 Keep out of the reach of children.
23 Do not breathe vapour/spray.
24/25 Avoid contact with skin and eyes.
36/37 Wear suitable protective clothing and gloves.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
51 Use only in well-ventilated areas.
56 Dispose of this material and its container to hazardous or special waste collection point.
63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.

· Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer

· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

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

· Dangerous components:

CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-butyl acetate R10-66-67 ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	25-50%
CAS: 28182-81-2 NLP: 500-060-2 Reg.nr.: 01-2119485796-17 01-2119488934-20	Hexamethylene diisocyanate homopolymer ⚠ Xn R20; ⚠ Xi R37; ⚠ Xi R43 ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 53317-61-6 NLP: 500-120-8	aromatic polyisocyanate ⚠ Xi R36; ⚠ Xi R43 ⚠ Eye Irrit. 2, H319; Skin Sens. 1, H317	10-25%

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CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate R10 Flam. Liq. 3, H226	10-25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119486136-34 01-2119488216-32	xylene, mixture of isomers Xn R20/21; Xi R38 R10 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	2.5-10%
CAS: 584-84-9 EINECS: 209-544-5 Reg.nr.: 01-2119486974-18	4-methyl-m-phenylene diisocyanate T+ R26; Xn R40; Xn R42/43; Xi R36/37/38 R52/53 Carc. Cat. 3 Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	0.1-1.0%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	ethylbenzene Xn R20; F R11 Flam. Liq. 2, H225; Acute Tox. 4, H332	< 2.5%
CAS: 822-06-0 EINECS: 212-485-8	hexamethylene-di-isocyanate T R23; Xn R42/43; Xi R36/37/38 Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 0.1%

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

4 First aid measures

· **Description of first aid measures**

· **General information:**

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

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

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 or oxygen; call for 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. Then consult a doctor.

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

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Firefighting measures

- **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
- **Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
During heating or in case of fire poisonous gases are produced.
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Hydrogen cyanide (HCN)
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Remove undamaged containers from the danger zone.
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid contact with the eyes and skin.
- **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.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pls. refer to section 10
Do not seal receptacle gas tight.
Danger of bursting.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Do not inhale gases / fumes / aerosols.
Use respiratory protective device against the effects of fumes/dust/aerosol.

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Avoid contact with the eyes and skin.

· **Information about fire - and explosion protection:**

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Anti-explosion protection required

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Adhere to the provisions of the Law on Water Protection.

· **Information about storage in one common storage facility:**

Pls. refer to section 10

Keep away from foodstuffs, beverages and feed.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

Keep ignition sources away - Do not smoke.

Protect from humidity and water.

Protect from heat and direct sunlight.

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

8 Exposure controls/personal protection

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

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

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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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

1330-20-7 xylene, mixture of isomers

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

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584-84-9 4-methyl-m-phenylene diisocyanate

WEL (Great Britain) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen; as -NCO

· DNELs

123-86-4 n-butyl acetate

Oral	Long-term exposure - systemic effects	3.4 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	3.4 mg/kg bw/day (general population) 7 mg/kg bw/day (worker)
Inhalative	Acute/short-term exposure - local effects	859.7 mg/m ³ (general population) 960 mg/m ³ (worker)
	Acute/short-term exposure - systemic effects	859.7 mg/m ³ (general population) 960 mg/m ³ (worker)
	Long-term exposure - local effects	102.34 mg/m ³ (general population) 480 mg/m ³ (worker)
	Long-term exposure - systemic effects	102.34 mg/m ³ (general population) 480 mg/m ³ (worker)

28182-81-2 Hexamethylene diisocyanate homopolymer

Inhalative	Acute/short-term exposure - local effects	1.0 mg/m ³ (worker)
	Long-term exposure - local effects	0.5 mg/m ³ (worker)

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

Oral	Long-term exposure - systemic effects	1.67 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	54.8 mg/kg bw/day (general population) 153.5 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	33 mg/m ³ (general population) 275 mg/m ³ (worker)

1330-20-7 xylene, mixture of isomers

Oral	Long-term exposure - systemic effects	1.6 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	108 mg/kg bw/day (general population) 180 mg/kg bw/day (worker)
Inhalative	Acute/short-term exposure - local effects	174 mg/m ³ (general population) 289 mg/m ³ (worker)
	Acute/short-term exposure - systemic effects	174 mg/m ³ (general population) 289 mg/m ³ (worker)
	Long-term exposure - systemic effects	14.8 mg/m ³ (general population) 77 mg/m ³ (worker)

584-84-9 4-methyl-m-phenylene diisocyanate

Inhalative	Acute/short-term exposure - local effects	0.14 mg/m ³ (worker)
	Acute/short-term exposure - systemic effects	0.14 mg/m ³ (worker)
	Long-term exposure - local effects	0.035 mg/m ³ (worker)
	Long-term exposure - systemic effects	0.035 mg/m ³ (worker)

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· **PNECs****123-86-4 n-butyl acetate**

PNEC STP	35.6 mg/l (-)
PNEC aqua	0.18 mg/l (freshwater) 0.018 mg/l (marine water) 0.36 mg/l (intermittent releases)
PNEC sediment	0.981 mg/kg (freshwater) 0.0981 mg/kg (marine water)

28182-81-2 Hexamethylene diisocyanate homopolymer

PNEC STP	38.28 mg/l (-)
PNEC aqua	0.127 mg/l (freshwater) 0.0127 mg/l (marine water)
PNEC sediment	266700 mg/kg (-)
PNEC soil	53182 mg/kg (soil dw)

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

PNEC STP	100 mg/l (-)
PNEC aqua	0.635 mg/l (freshwater)
PNEC sediment	3.29 mg/kg (freshwater) 0.329 mg/kg (marine water)
PNEC soil	0.29 mg/kg (soil dw)

1330-20-7 xylene, mixture of isomers

PNEC STP	6.58 mg/l (-)
PNEC aqua	0.327 mg/l (freshwater) 0.327 mg/l (marine water) 0.327 mg/l (intermittent releases)
PNEC sediment	12.46 mg/kg (freshwater) 12.46 mg/kg (marine water)

584-84-9 4-methyl-m-phenylene diisocyanate

PNEC STP	1 mg/l (-)
PNEC aqua	0.0125 mg/l (freshwater) 0.00125 mg/l (marine water) 0.125 mg/l (intermittent releases)
PNEC soil	1 mg/kg (-)

· **Ingredients with biological limit values:****1330-20-7 xylene, mixture of isomers**

BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Do not eat, drink, smoke or sniff while working.

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Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

Store protective clothing separately.

Avoid contact with the eyes and skin.

Use skin protection cream for skin protection.

· Respiratory protection:

Adhere to the workplace limit values and / or other threshold values.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Use suitable respiratory protective device in case of insufficient ventilation.

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 A/P2

· Protection of hands:

Preventive skin protection by use of skin-protecting agents is recommended.



Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

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.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

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

· Penetration time of glove material

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

· Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Fluid

Colour: Colourless

· Odour: Characteristic

· Change in condition

Melting point/Melting range: Undetermined.

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Boiling point/Boiling range: Undetermined.	
· Flash point:	24 °C
· Ignition temperature:	330 °C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.1 Vol %
Upper:	8.0 Vol %
· Density at 20 °C:	1 g/cm ³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix. Reacts with water.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Fumes can combine with air to form an explosive mixture.
 - Reacts with oxidizing agents.
 - Reacts with numerous chemical compounds, especially those with mobile hydrogen atoms.
 - Reacts with alcohols, amines, aqueous acids and alkalis.
 - Reacts with water.
 - Do not seal receptacle gas tight.
 - Danger of bursting.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Formation of toxic gases is possible during heating or in case of fire.
 - Pls. see additionally section 5.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

123-86-4 n-butyl acetate

Oral	LD50	10760 mg/kg (rat) (OECD 423)
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalative	LC50 /4h	23.4 mg/l (rat) (OECD 403)

28182-81-2 Hexamethylene diisocyanate homopolymer

Oral	LD50	> 738 mg/kg (rat)
Dermal	LD50	> 593 mg/kg (rat)

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

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat) > 5000 mg/kg (rabbit)
Inhalative	LC0 /6h	> 4345 mg/l (rat) (6h, Vapour)
	LC50 /4h	35.7 mg/l (rat)
	LC50 /6h	>23.8 mg/l (rat)

1330-20-7 xylene, mixture of isomers

Oral	LD50	> 4000 mg/kg (rat)
Dermal	LD50	> 1700 mg/kg (rabbit)
Inhalative	LC50 /4h	21.7 mg/l (rat) (Vapour) 5000 ppm (rat) (Gas)

100-41-4 ethylbenzene

Oral	LD50	3500 mg/kg (rat)
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalative	LC50 /4h	17.2 mg/l (rat)

584-84-9 4-methyl-m-phenylene diisocyanate

Oral	LD50	5800 mg/kg (rat)
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822-06-0 hexamethylene-di-isocyanate

Oral	LD50	> 7000 mg/kg (rat) (OECD 402)
Dermal	LD50	593 mg/kg (rat) > 7000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50 /4h	0.124 mg/l (rat) (OECD 403)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

· **Subacute to chronic toxicity:**

822-06-0 hexamethylene-di-isocyanate

Inhalative	LOAEL	0.175 mg/m ³ (rat) (OECD453, 2a, 6h/day) 0.025 mg/l (rat) (OECD 453, Vapour, 2a, 6h/day)
	NOAEL	0.035 mg/m ³ (rat) (OECD 453, 2a, 6h/day) 0.005 mg/l (rat) (OECD 453, Vapour, 2a, 6h/day)

- **Additional toxicological information:**
Danger through skin adsorption.
Vapours may cause drowsiness and dizziness.
Has a narcotizing effect.
- **Sensitisation** May cause sensitisation by inhalation and skin contact.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Carcinogenicity** Not determined

· **Reproductive toxicity/Fertility**

822-06-0 hexamethylene-di-isocyanate

Inhalative	NOAEL (fertility)	0.005 mg/l (rat (parents)) (OECD 422, 6h/day, 28-50d)
		0.3 mg/l (rat (F1)) (OECD 422, 6h/day, 28-50d)
		0.3 mg/l (rat) (OECD 422, 6h/day, fertility)

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· **Reproductive toxicity/Teratogenicity****822-06-0 hexamethylene-di-isocyanate**

Inhalative	NOAEL (developmental toxicity)	0.3 mg/l (rat) (OECD 414, 6h/day)
	NOAEL (teratogenicity)	0.3 mg/l (rat) (OECD 414, 6h/day)
	LOAEL (maternally)	0.005 mg/l (rat) (OECD 414, 6h/day)

12 Ecological information· **Toxicity**· **Aquatic toxicity:****123-86-4 n-butyl acetate**

EC50	356 mg/l (bacteria) (Tetrahymena, 40h)
	73 mg/l (daphnia magna) (24h)
EC50/48h	44 mg/l (daphnia magna)
EC50/72h	674.7 mg/l (scenedesmus subspicatus)
	647.7 mg/l (desmodesmus subspicatus)
LC50	64 mg/l (danio rerio) (48h)
	205 mg/l (daphnia magna) (24 h)
LC50/96h	320 mg/l (Pseudokirchneriella subcapitata)
	18 mg/l (pimephales promelas) (OECD 203)
NOEC	200 mg/l (desmodesmus subspicatus)

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

EC10/0,5h	>1000 mg/l (activated slugde) (OECD 209)
EC50/48h	>500 mg/l (daphnia magna) (67/548/EWG Apendix V, C.2.)
EC50/72h	> 1000 mg/l (Selenastrum capricornutum) (OECD- 201)
LC50/96h	134 mg/l (oncorhynchus mykiss) (OECD- 203)
	> 100 mg/l (Oryzias latipes) (OECD 203)
NOEC	≥ 100 mg/l (daphnia magna) (21d, OECD 202)
	47.5 mg/l (Oryzias latipes) (14d, OECD 204)

1330-20-7 xylene, mixture of isomers

EC50	> 175 mg/l (activated slugde)
EC50/48h	3.82 mg/l (daphnia magna)
EC50/72h	4.7 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	7.6 mg/l (oncorhynchus mykiss)
NOEC	> 1.3 mg/l (oncorhynchus mykiss) (56 d)

100-41-4 ethylbenzene

EC50/48h	2.4 mg/l (daphnia magna)
	> 5.2 mg/l (americamysis bahia)
EC50/72h	4.6 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	4.2 mg/l (oncorhynchus mykiss)

822-06-0 hexamethylene-di-isocyanate

EC0/48h	≥89.1 mg/l (daphnia magna) (67/548/EWG, Apendix V, C.2.)
EC50/3h	842 mg/l (activated slugde) (EG-RL 88/302/EEC)

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EC50/72h	>77.4 mg/l (<i>scenedesmus subspicatus</i>) (67/548/EWG, Appendix V, C.3.)
LC0/96h	≥82.8 mg/l (<i>danio rerio</i>) (67/548/EWG, Appendix V, C.1.)

· **Persistence and degradability****123-86-4 n-butyl acetate**

Biodegradation 83 % (-) (OECD 301 D 28d)

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

BSB 83 % (activated sludge) (28d, OECD 301 F)

Biodegradation 100 % (-) (OECD 302, 8d)

1330-20-7 xylene, mixture of isomers

Biodegradation 87.8 % (-) (28d)

100-41-4 ethylbenzene

Biodegradation > 70 % (-) (28 d)

822-06-0 hexamethylene-di-isocyanate

Biodegradation 42 % (-) (OECD 301, 28d)

· **Behaviour in environmental systems:**· **Bioaccumulative potential****123-86-4 n-butyl acetate**

BCF 15.3 (-)

Kow 2.3 (-)

log Pow 2.3 (-) (OECD 117)

28182-81-2 Hexamethylene diisocyanate homopolymer

BCF 3.2 (-)

Kow 9.81 (-)

log Pow 9.81 (-)

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

Kow 0.43 (-)

log Pow 0.43 (-)

1330-20-7 xylene, mixture of isomers

BCF 6 - 23.4 (-)

log Pow > 3 (-)

100-41-4 ethylbenzene

log Pow 3.1 (-)

822-06-0 hexamethylene-di-isocyanate

BCF 57.6 (-) (calculated)

· **Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:**

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

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

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.

GB

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal must be made according to official regulations.

· European waste catalogue

08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** 1263

- **UN proper shipping name**
- **ADR** 1263 PAINT
- **IMDG, IATA** PAINT

- **Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class** 3 Flammable liquids.
- **Label** 3

- **Packing group**
- **ADR, IMDG, IATA** III

- **Special precautions for user** Warning: Flammable liquids.
- **EMS Number:** F-E,S-D

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **Transport/Additional information:**

- | | |
|----------------------------------|-----|
| · ADR | |
| · Limited quantities (LQ) | LQ7 |
| · Transport category | 3 |
| · Tunnel restriction code | D/E |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

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

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.
 H330 Fatal if inhaled.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.
- R10 Flammable.
 R11 Highly flammable.
 R20 Harmful by inhalation.
 R20/21 Harmful by inhalation and in contact with skin.
 R23 Toxic by inhalation.
 R26 Very toxic by inhalation.
 R36 Irritating to eyes.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R37 Irritating to respiratory system.
 R38 Irritating to skin.
 R40 Limited evidence of a carcinogenic effect.
 R42/43 May cause sensitisation by inhalation and skin contact.
 R43 May cause sensitisation by skin contact.
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:** Abteilung Labor

· **Contact:** Frau S. Schaller

· **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 Organization

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

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**