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

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

· **1.1 Product identifier**
· Trade name: **Hardener for Turbo Gloss 2K-UHS Clearcoat 2:1**

· Article number: 70603, 70605
· UFI: 0VF0-R05R-900X-8Q99
· **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
· Application of the substance / the mixture Hardening agent/ Curing agent

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg e-mail info@akemi.de

· Further information obtainable from: Laboratory
· **1.4 Emergency telephone number:** Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

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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 Sens. 1	H317	May cause an allergic skin reaction.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.

· **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: Hexamethylene-1,6-diisocyanate homopolymer
n-butyl acetate
hexamethylene-di-isocyanate
2-methoxy-1-methylethyl acetate
· Hazard statements
H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
· Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.

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P280	Wear protective gloves / eye protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P312	IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/ regional/national/international regulations.

· Additional information: EUH066 Repeated exposure may cause skin dryness or cracking.
Contains isocyanates. May produce an allergic reaction.

· **2.3 Other hazards**
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

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

· Dangerous components:

CAS: 28182-81-2 EC number: 931-274-8 Reg.nr.: 01-2119485796-17-0000	Hexamethylene-1,6-diisocyanate homopolymer Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29	n-butyl acetate Flam. Liq. 3, H226 STOT SE 3, H336	12.5-25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-211947591-29	2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226 STOT SE 3, H336	12.5-25%
CAS: 822-06-0 EINECS: 212-485-8 Index number: 615-011-00-1 Reg.nr.: 01-2119457571-37-0001	hexamethylene-di-isocyanate Acute Tox. 3, H331 Skin Sens. 1, H317; STOT SE 3, H335	<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: Take affected persons out into the fresh air.
Position and transport stably in side position.
· 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: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: If symptoms persist consult doctor.
· Information for doctor: Symptoms in intoxication with (aromatic) hydrocarbons (dosis letalis about 30 g)
a) In acute intoxication: headache, dizziness, euphoria, gastro-intestinal dysfunction, state of excitement, coma.
b) In chronic intoxication: myelotoxic damage, fatigue, dizziness, emaciation, cardiac palpitation after physical exercise, leucopenia, anemia, leukosis.

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Therapy in hydrocarbons intoxication: In case of inhalation provision of fresh air; in case of peroral intake administration of Carbo medicinalis; only after intubation conduct of gastrolavage in application of Carbo medicinalis; in case of cramps administration of Diazepam 20 mg intravenously.
Acute health risks in isocyanate exposition
- dermal effect: Isocyanate contact with skin cause in dependence of the exposition duration to severe skin irritation and occasionally to contact dermatitis.
- effect on eyes: Fumes in concentration above the tolerable working place limit value, aerosols and dust promotes lacrimation and eye burning. Isocyanate eye splashs may cause damages of cornea.
- respiratory effect: In exposition of isocyanate fumes and in dependence of their concentration severe nasal irritation and pharyngitis with subsequent damage of upper and lower respiratory tract may occur. Most frequently observed symptoms are xerosis of the throat, chest pressure often accompanied by headache, respiratory malfunction and breathlessness. Long-term inhaling of high isocanate concentrations sometimes can result in a pulmonary edema.
Chronical health risks in isocyanate exposition:
Recurrent exceedings of permitted working place limit values can cause chronical respiratory diseases like bronchitis and worsening of respiratory function. In sensitive / disposed subjects sensibilization and hypersensitization may occur leading to asthmatic dysfunction (obstructive respiratory disease).

· **4.2 Most important symptoms and effects, both acute and delayed**

Breathing difficulty
Headache
Dizziness
Dizziness
Nausea
Allergic reactions

· Hazards: Danger of impaired breathing.

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

If swallowed, gastric irrigation with added, activated carbon.
If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· Suitable extinguishing agents: CO_2, 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**

Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

· **5.3 Advice for firefighters**

· Protective equipment:
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.

· Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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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**
Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
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).
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.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Use only in well ventilated areas.
Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection:
Highly volatile, flammable constituents are released during processing.
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:
No special requirements.
· Information about storage in one common storage facility:
Store away from oxidising agents.
Store away from foodstuffs.
· Further information about storage conditions:
Store receptacle in a well ventilated area.
Keep container tightly sealed.
· Storage class:
3
· **7.3 Specific end use(s)**
No further relevant information available.

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SECTION 8: Exposure controls/personal protection

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

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

123-86-4 n-butyl acetate

WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm

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

WEL	Short-term value: 548 mg/m³, 100 ppm Long-term value: 274 mg/m³, 50 ppm Sk

822-06-0 hexamethylene-di-isocyanate

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

· DNELs

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer

Inhalative	DNEL (Kurzzeit-akut)	1 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.5 mg/m³ Air (ARB)

123-86-4 n-butyl acetate

Oral	DNEL (Kurzzeit-akut)	2 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	11 mg/kg bw/day (ARB)
		6 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	11 mg/kg bw/day (ARB)
		6 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	960 mg/m³ Air (ARB)
		860 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	480 mg/m³ Air (ARB)
		102.34 mg/m³ Air (BEV)

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

Oral	DNEL (Langzeit-wiederholt)	1.67 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	153.5 mg/kg bw/day (ARB)
		54.8 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	550 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	275 mg/m³ Air (ARB)
		33 mg/m³ Air (BEV)

822-06-0 hexamethylene-di-isocyanate

Inhalative	DNEL (Kurzzeit-akut)	0.07 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.035 mg/m³ Air (ARB)

· PNECs

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer

PNEC (wässrig)	38.28 mg/l (KA)
	0.0127 mg/l (MW)
	0.127 mg/l (SW)
	1.27 mg/l (WAS)
PNEC (fest)	53,200 mg/kg Trockengew (BO)
	26,670 mg/kg Trockengew (MWS)
	266,700 mg/kg Trockengew (SWS)

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123-86-4 n-butyl acetate	
PNEC (wässrig)	35.6 mg/l (KA)
	0.018 mg/l (MW)
	0.18 mg/l (SW)
	0.36 mg/l (WAS)
PNEC (fest)	0.0903 mg/kg Trockengew (BO)
	0.0981 mg/kg Trockengew (MWS)
	0.981 mg/kg Trockengew (SWS)
108-65-6 2-methoxy-1-methylethyl acetate	
PNEC (wässrig)	100 mg/l (KA)
	0.0635 mg/l (MW)
	0.635 mg/l (SW)
	6.35 mg/l (WAS)
PNEC (fest)	0.29 mg/kg Trockengew (BO)
	0.329 mg/kg Trockengew (MWS)
	3.29 mg/kg Trockengew (SWS)
822-06-0 hexamethylene-di-isocyanate	
PNEC (wässrig)	8.42 mg/l (KA)
	>0.00774 mg/l (MW)
	>0.0774 mg/l (SW)
	0.774 mg/l (WAS)
PNEC (fest)	2.6 mg/kg Trockengew (BO)
	1.33 mg/kg Trockengew (MWS)
	13.34 mg/kg Trockengew (SWS)

· Ingredients with biological limit values:

822-06-0 hexamethylene-di-isocyanate	
BMGV	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine

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

· **8.2 Exposure controls**

· Personal protective equipment:

· General protective and hygienic measures:
Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.

· Respiratory protection: Short term filter device:
Filter A/P2
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.

· Protection of hands: Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.

Protective gloves

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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.
Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (http://www.stoko.com)
Skin protection recommendation for skin cleaning after product handling:
FRAPANTOL (http://www.stoko.com)
Skin protection agent recommendation for skin aftercare:
STOKO VITAN (http://www.stoko.com)
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type.
The mentioned permeation times´ data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).

· Material of gloves
Butyl rubber, BR
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 ≤ 5, 480 min
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)

· As protection from splashes gloves made of the following materials are suitable:
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:
Leather gloves
Strong material gloves

· 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:	According to product specification
· Odour:	Characteristic
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	124-128 °C
· Flash point:	30 °C
· Ignition temperature:	315 °C
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.5 Vol %
Upper:	10.8 Vol %
· Vapour pressure at 20 °C:	10.7 hPa
· Density at 20 °C:	1.04 g/cm³
· Solubility in / Miscibility with water:	Partly soluble.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	45.9 %
Solids content:	0.0 %
· **9.2 Other information**	No further relevant information available.

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 and stored according to specifications.
· **10.3 Possibility of hazardous reactions**	Reacts with acids, alkalis and oxidising agents. Violent reactions with -NHx, -OH and -SH- groups.
· **10.4 Conditions to avoid**	No further relevant information available.
· **10.5 Incompatible materials:**	No further relevant information available.
· **10.6 Hazardous decomposition products:**	Hydrogen cyanide (prussic acid) Isocyanate Carbon monoxide and carbon dioxide Possible in traces.

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· Acute toxicity Harmful if inhaled.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)		
Dermal	LD50	577,973 mg/kg
Inhalative	LC50/4 h	0.72 mg/l (rat)

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer		
Oral	LD50	>2,500 mg/kg (rat)
	NOAEL-Werte	3 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
		>2,000 mg/kg (rat)
Inhalative	LC50/4 h	0.39 mg/l (rat) (OECD TG 403)

123-86-4 n-butyl acetate		
Oral	LD50	10,800 mg/kg (rat) (OECD 423)
Dermal	LD50	>17,600 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	>21 mg/l (rat) (OECD 403)
	LC50	390 mg/m3 (rat)
	LC50/48h	64 mg/l (Brachydanio rerio)

108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	6,190 mg/kg (rat) (OECD 401)
	NOAEL-Werte	1,500 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)
		>2,000 mg/kg (rat)
Inhalative	LC50/4h	>10,000 mg/m3 (rat)
	LC50	>23.8 mg/l (rat)
	LC50/4 h	35.7 mg/l (rat)
	LC50/48h	100 mg/l (Desmodesmus subspicatus)

822-06-0 hexamethylene-di-isocyanate		
Oral	LD50	>5,665 mg/kg (rat) (OECD 401)
Dermal	LD50	593 mg/kg (rabbit)
		>2,000 mg/kg (rat) (OECD 402)
Inhalative	LC50/4 h	0.158 mg/l (rat) (OECD 403)
	NOAEL	0.41 mg/m³ (rat)

· 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 May cause an allergic skin reaction.
· Additional toxicological information:
· CMR effects (carcinogenity, 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.
· 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.

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* **SECTION 12: Ecological information**

· **12.1 Toxicity**

· Aquatic toxicity:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer	
EC50	3,828 mg/l (BES) (OECD 209)
LC 0/96h	>82.8 mg/l (Brachydanio rerio) (OECD 203)
EC50/48h	127 mg/l (daphnia magna) (RL 67/548/EWG, Anhang V, C.3.)
ErC50/72h	>1,000 mg/l (Desmodesmus subspicatus)
EC0	>100 mg/l (daphnia magna) (OECD 202)
EL50/48h	127 mg/l (daphnia magna)
LL50/96h	8.9 mg/l (Brachydanio rerio)
EC10	370 mg/l (Desmodesmus subspicatus)
EC50/72h	>100 mg/l (Scenedesmus subspicatus) (OECD 201)
LC50/96h	>100 mg/l (Danio rerio.) (RL 67/548/EWG, Anhang V, C.1.)
123-86-4 n-butyl acetate	
EC50/24h	72.8 mg/l (daphnia magna) (DIN 38412)
EC50/96h	320 mg/l (green alge)
LC50/24h	205 mg/l (daphnia magna)
IC50/72h	648 mg/l (Desmodesmus subspicatus)
EC10/18h	959 mg/l (pseudomonas putida)
EC50/48h	44 mg/l (daphnia magna)
EC50/16h	959 mg/l (pseudomonas putida)
NOEC	200 mg/kg (Desmodesmus subspicatus)
NOEC/21d	23 mg/l (daphnia magna)
EC50/72h	647.7 mg/l (Desmodesmus subspicatus) (Zellvermehrungshemmtest)
	674 mg/l (Scenedesmus subspicatus)
LC50/96h	62 mg/l (Danio rerio.)
	81 mg/l (piscis)
	100 mg/l (lepomis macrochirus)
	62 mg/l (Leuciscus idus) (DIN 38412)
	18 mg/l (pimephales promelas) (OECD 203)
108-65-6 2-methoxy-1-methylethyl acetate	
EC50	>100 mg/l (daphnia magna)
LC50	63.5 mg/l (Oryzias latipes)
EC50/48h	>500 mg/l (daphnia magna) (RL 67/548/EWG. Anhang V, C.2.)
ErC50/72h	>1,000 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC20/0.5h	>1,000 mg/l (BES) (OECD 209)
NOEC	47.5 mg/l (Oryzias latipes)
NOEC/21d	≥100 mg/l (daphnia magna)
EC10	>1,000 mg/l (BES)
LC50/96h	134 mg/l (Oncorhynchus mykiss)
	>1,000 mg/l (Oryzias latipes)
	161 mg/l (Pimephales promelas)
822-06-0 hexamethylene-di-isocyanate	
EC50	842 mg/l (bacteria) (OECD 209)

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LC 0/96h	82.8 mg/l (Brachydanio rerio) (OECD TG 203)
ErC50/72h	>77.4 mg/l (Desmodesmus subspicatus) (EU C.3)
EC0	>89.1 mg/l (daphnia magna) (OECD TG 202)
NOEC	11.7 mg/kg (Desmodesmus subspicatus) (EU C.3)
EC50/72h	>77.4 mg/l (Scenedesmus subspicatus) (OECD TG 201)
LC50/96h	22 mg/l (Brachydanio rerio)

· **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.
· Ecotoxical effects:
· Remark: Harmful to fish
· Additional ecological information:
· General notes: Do not allow product to reach ground water, water course or sewage system.
Harmful to aquatic organisms
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
· **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 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
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

· Uncleaned packaging:
· Recommendation: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
· Recommended cleansing agents: Alcohol

*
SECTION 14: Transport information

· **14.1 UN-Number**
· ADR, IMDG, IATA UN1263

· **14.2 UN proper shipping name**
· ADR 1263 PAINT
· IMDG, IATA PAINT

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· **14.3 Transport hazard class(es)**

· ADR

· Class	3 (F1) Flammable liquids.
· Label	3

· IMDG, IATA

· Class	3 Flammable liquids.
· Label	3

· **14.4 Packing group**
· ADR, 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 Transport in bulk according to Annex II of Marpol and the IBC Code**: Not applicable.

· Transport/Additional information:

· ADR
· 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

· 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

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· 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, 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.

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
· VOC EU: 477.4 g/l
· DECOPAINT: subject to EU-regulations 2004/42/EG (ANNEX II): EU limit for this product (product-category (Kat. B/d)): 420g/l (2010). The ready-to-use product (comprises of clear lacquer and hardener) contains max. 420 g/l VOC.

· **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.

· Reasons for alterations
· Relevant phrases
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
· Recommended restriction of use: refer to Technical Data Sheet (TDS)
Only for professional use - no end consumer product

· Department issuing SDS: Laboratory
· Contact: Dieter Zimmermann
· 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 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. 3: Flammable liquids – Category 3
Acute Tox. 3: Acute toxicity - inhalation – Category 3
Acute Tox. 4: Acute toxicity - inhalation – Category 4

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Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· Sources REACH directive 1907/2006/EC

· * Data compared to the previous version altered. Adaptation in accordance with REACH directive 1907/2006/EC