Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Aqua-Crosslinker 8481

Version number: 3.0

Revision: 14.10.2024
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name **Aqua-Crosslinker 8481** **8481a:**

Product number 8481000210

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Additive for water-based coating materials; for industrial or professional end-uses.

Uses advised against: Any use not listed above.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
ADLER-Werk Lackfabrik Johann Berghofer GmbH & Co KG
Bergwerkstraße 22
A-6130 Schwaz
Austria

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Telephone
+43 5242 6922-713
Mon - Thu 07:00 - 16:25
Fri 07:00 - 12:15

1.4 Emergency telephone number

Country	Name	Telephone
Austria	Vergiftungsinformationszentrale (Poison Informations Center)	+43 1 406 43 43

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Hazard class	Category	Hazard class and category	Hazard statement
serious eye damage/eye irritation	1	Eye Dam. 1	H318
skin sensitisation	1	Skin Sens. 1	H317

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word: danger
- Pictograms

GHS05, GHS07

- Hazard statements

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

- Precautionary statements

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents, container in accordance with national regulations.

- Hazardous ingredients for labelling: [3-(2,3-epoxypropoxy)propyl]trimethoxysilane, 2,4,7,9-tetramethyldec-5-yne-4,7-diol

2.3 Other hazards

Keep out of reach of children and do not empty into the drains. Dispose remainders properly (collection of hazardous waste, disposal companies). Empty containers must be entered into the recycling system. The usual safety precautions must be observed during processing of the product.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture: Additives in organic solvents and water.

Name of substance	Identifier	Wt%	Classification acc. to GHS
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS No 2530-83-8 EC No 219-784-2 REACH Reg. No 01-2119513212-58-xxxx	50 – < 75	Eye Dam. 1 / H318
2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS No 126-86-3 EC No 204-809-1 REACH Reg. No 01-2119954390-39-xxxx	10 – < 25	Eye Dam. 1 / H318 Skin Sens. 1 / H317 Aquatic Chronic 3 / H412
ethane-1,2-diol	CAS No 107-21-1 EC No 203-473-3 Index No 603-027-00-1	5 – < 10	Acute Tox. 4 / H302 STOT RE 2 / H373

Name of substance	Identifier	Wt%	Classification acc. to GHS
	REACH Reg. No 01-2119456816-28-xxxx		
poly(oxy-1,2-ethanediyl), α-[1,1'-biphenyl]-4-yl-ω-hydroxy-, benzylated	CAS No 104376-72-9	1 – < 3	Aquatic Chronic 3 / H412

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
ethane-1,2-diol	-	-	500 $^{mg}/_{kg}$	oral

Remarks

For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Take off contaminated clothing. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Do not use any solvents or thinners!.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Keep at rest. IF SWALLOWED: Immediately call a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), BC-powder, Water spray, Alcohol resistant foam, Sand

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Thick smoke may occur in case of a fire. Inhaling the decomposed products may cause serious damage to health. The formation of explosive dust-air-mixtures is possible. Upon contact with air, the vapours may form an explosive mixture. . Combustible.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Provision of sufficient ventilation. Control of dust.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Fill contaminated material in the original container or any other suitable one and dispose it in accordance with point 13.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Flammability hazards

Keep away from sources of ignition - No smoking. Ground/bond container and receiving equipment.

Control of effects

Do not pierce or burn, even after use. Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. . Close the open container carefully and keep it straight to prevent leakage.
Store in the original container. Storage temperature of 0 °C/32 °F and up to 50 °C/122 °F.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
AT	ethylene glycol	107-21-1	MAK	10	26			20 (5 min)	52 (5 min)	H	GKV
EU	ethylene glycol	107-21-1	IOELV	20	52	40	104			H	2000/39/EC

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	DNEL	147 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	DNEL	21 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	DNEL	1,76 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	DNEL	5,28 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	DNEL	0,5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	DNEL	1,5 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
ethane-1,2-diol	107-21-1	DNEL	35 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
ethane-1,2-diol	107-21-1	DNEL	106	human, dermal	worker (industry)	chronic - system-

Relevant DNELs of components

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
			mg/kg bw/day			ic effects

Relevant PNECs of components

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	1 mg/l	aquatic organisms	freshwater	short-term (single instance)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	0,1 mg/l	aquatic organisms	marine water	short-term (single instance)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	3,6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	0,36 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8	PNEC	0,14 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	0,04 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	0,004 mg/l	aquatic organisms	marine water	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	7 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	0,32 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	0,032 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	PNEC	0,028 mg/kg	terrestrial organisms	soil	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	199,5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

Relevant PNECs of components						
Name of substance	**CAS No**	**End-point**	**Threshold level**	**Organism**	**Environmental compartment**	**Exposure time**
ethane-1,2-diol	107-21-1	PNEC	37 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	3,7 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	1,53 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection (EN 166).

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Use protective gloves made of latex or PVC as spray protection for short-term work. Latex: penetration time ≥ 480 min, material strength: 0.5mm / PVC: penetration time > 60 min, material strength: 0.2mm.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

During spraying wear suitable respiratory equipment. Combination filtering device (EN 141). Particulate filter device (EN 143). Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	specific type
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C
Flammability	not relevant
Flash point	not determined

Auto-ignition temperature	not applicable
pH (value)	not determined
Kinematic viscosity	10 – 14 $^{s}/_{DIN\ 4mm}$ at 20 °C

Solubility(ies)

Water solubility	miscible in any proportion

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	23 hPa at 20 °C

Density and/or relative density

Density	1,039 $^{g}/_{cm^3}$ at 20 °C
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)

Other safety parameters

Explosive properties	Does not apply (see note in chapter 16)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics

Miscibility	Completely miscible with water.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
ethane-1,2-diol	107-21-1	oral	500 $^{mg}/_{kg}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential
Data are not available.

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Endocrine disrupting properties
Not listed.

12.7 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes, Decision 2000/532/EC on the list of waste

- Product
  08 01 15* aqueous sludges containing paint or varnish containing organic solvents or other hazardous substances

- Product residues
  15 01 10* packaging containing residues of or contaminated by hazardous substances

- Packagings
  15 01 02 plastic packaging
  15 01 04 metallic packaging

List of wastes (ÖNORM S 2100)

55503: Lack- und Farbschlamm.

- Restentleerte Verpackungen (ja nach angeführtem Recyclingcode gemäß der Richtlinie 94/62/EG auf der Verpackung)
35105: Eisenmetallemballagen (Recyclingcode FE40).
57118: Kunststoffemballagen und -behältnisse (Recyclingcodes: PET01, PE-HD02, PE-LD04 oder PP05).

Disposal methods:

Product

Waste production should be avoided or minimised if possible.
Do not empty into the drains. Avoid releasing the product into the environment. Waste, containers must be removed, disposed in a safe way.

Packagings

Waste production should be avoided or minimised if possible.
Packaging waste should be recycled. Burning or landfilling should only be considered if recycling is not feasible.

Notes on disposal:

Product

Disposal of this product and its dissolutions and by-products must be carried out in accordance with the environmental protection requirements and waste disposal laws as well as the requirements of the local authorities at all times. Excess must be handed over, disposed to a recognised waste disposal company (disposal company/recycling company).

Packagings

With the aid of the information provided in this safety data sheet, the responsible authorities must be consulted regarding classification of empty containers, packaging. Empty containers should be disposed, recycled according to type. Licenced containers, packaging can be disposed free of charge via system partners, where applicable. Containers with residual contents must be disposed in accordance with local and national legal provisions.
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Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	**UN number or ID number**	not subject to transport regulations
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard class(es)**	none
14.4	**Packing group**	not assigned
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Seveso Directive

2012/18/EU (Seveso III)			
No	**Dangerous substance/hazard categories**	**Qualifying quantity (tonnes) for the application of lower and upper-tier requirements**	**Notes**
	not assigned		

Deco-Paint Directive (2004/42/EC)

VOC content	5,925 % 70 $^{g}/_{l}$

Industrial Emissions Directive (IED) (2010/75/EU)

VOC content	5,925 % 61,58 $^{g}/_{l}$

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National regulations (Austria)

Ordinance on combustible liquids (VbF) not applicable

- VbF (group and hazard class) not applicable

National regulations (Germany)

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK (water hazard class) 2 obviously hazardous to water

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
GKV	Grenzwerteverordnung
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

Abbr.	Descriptions of used abbreviations
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TWA	Time-weighted average
VbF	Ordinance on combustible liquids (Austria)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Note concerning the lower explosion limit of water-thinnable varnishes:

See PTB research report PEx5 200500185, Physical-Technical Federal Agency Braunschweig, September 2005 and report PTB-W-57, February 1994.
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Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.