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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

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

· **1.1 Product identifier**
· Trade name: **Hardener, liquid**

· Article number: 30413
· UFI: HTD0-K0M6-Y002-DH9R
· **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
Lechstrasse 28
D 90451 Nürnberg
Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

· Further information obtainable from: see manufacturer / supplier
· **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.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008

Org. Perox. D	H242	Heating may cause a fire.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
STOT SE 3	H336	May cause drowsiness or dizziness.

· Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
· Storage: Protect from sunlight. Store in a well-ventilated place.
Store in a well-ventilated place. Keep container tightly closed.

· **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 GHS05 GHS07

· Signal word Danger

· Hazard-determining components of labelling: 2-Butanone, peroxide
ethyl acetate

(Contd. on page 2)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 1)

· Hazard statements
H242 Heating may cause a fire.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H336 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.
P220	Keep away from reducing agents, heavy metal compounds, acids and alkalis.
P260	Do not breathe vapours.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P312	IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P310	Immediately call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410	Protect from sunlight.
P411+P235	Store at temperatures not exceeding 25°C°F. Keep cool.
P420	Store separately.
P501	Dispose of contents/container in accordance with local/ regional/national/international regulations.

· Additional information: EUH066 Repeated exposure may cause skin dryness or cracking.

· **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: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5 Reg.nr.: 01-2119475103-46	ethyl acetate Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	50-100%
CAS: 131-11-3 EINECS: 205-011-6 Reg.nr.: 01-2119437229-36	dimethyl phthalate substance with a Community workplace exposure limit	12.5-25%
CAS: 1338-23-4 EINECS: 215-661-2 Reg.nr.: 01-2119514691-43	2-Butanone, peroxide Org. Perox. A, H240 Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Acute Tox. 4, H332	12.5-25%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43	butanone Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	1-5%

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

(Contd. on page 3)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 2)

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SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· General information: Take affected persons out into the fresh air.
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: 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: Call a doctor immediately.
Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing: Rinse out mouth and then drink plenty of water.
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

· Information for doctor: Dibenzoyl peroxide: Inhalation, swallowing or skin contact may cause health damages. Irritates respiratory tract and eyes: e.g., cough, dyspnea, lacrimation. May irritates the skin: burning and itching. May cause allergic reactions of respiratory tract and skin.

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

Breathing difficulty
Headache
Dizziness
Dizziness
Gastric or intestinal disorders
Nausea

· 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: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **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)

· **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 Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.

(Contd. on page 4)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 3)

Ensure adequate ventilation
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:** Send for recovery or disposal in suitable receptacles.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

· **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Handle with care. Avoid jolting, friction and impact.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Keep away from heat and direct sunlight.
Do not refill residue into storage receptacles.
Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection: Use explosion-proof apparatus / fittings and spark-proof tools.

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

· Storage:

· Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
Prevent any seepage into the ground.

· Information about storage in one common storage facility: Store away from foodstuffs.
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

· Further information about storage conditions: Store receptacle in a well ventilated area.
Protect from frost.
Keep container tightly sealed.

· Storage class: 5.2

· **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.

· Ingredients with limit values that require monitoring at the workplace:	
141-78-6 ethyl acetate	
WEL	Short-term value: 1468 mg/m³, 400 ppm Long-term value: 734 mg/m³, 200 ppm

(Contd. on page 5)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 4)

131-11-3 dimethyl phthalate	
WEL	Short-term value: 10 mg/m³ Long-term value: 5 mg/m³
1338-23-4 2-Butanone, peroxide	
WEL	Short-term value: 1.5 mg/m³, 0.2 ppm
78-93-3 butanone	
WEL	Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV

· DNELs

141-78-6 ethyl acetate		
Oral	DNEL (Langzeit-wiederholt)	4.5 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	63 mg/kg bw/day (ARB)
		37 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	1,468 mg/m³ Air (ARB)
		734 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	734 mg/m³ Air (ARB)
		367 mg/m³ Air (BEV)
1338-23-4 2-Butanone, peroxide		
Oral	DNEL (Langzeit-wiederholt)	0.27 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	1.08 mg/kg bw/day (ARB)
		0.54 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	1.9 mg/m³ Air (ARB)
		0.41 mg/m³ Air (BEV)
78-93-3 butanone		
Oral	DNEL (Langzeit-wiederholt)	31 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	1,161 mg/kg bw/day (ARB)
		412 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	600 mg/m³ Air (ARB)
		106 mg/m³ Air (BEV)

· PNECs

141-78-6 ethyl acetate	
PNEC (wässrig)	650 mg/l (KA)
	0.024 mg/l (MW)
	0.26 mg/l (SW)
	1.65 mg/l (WAS)
PNEC (fest)	0.24 mg/kg Trockengew (BO)
	0.125 mg/kg Trockengew (MWS)
	1.25 mg/kg Trockengew (SWS)
1338-23-4 2-Butanone, peroxide	
PNEC (wässrig)	1.2 mg/l (KA)
	0.00056 mg/l (MW)
	0.0056 mg/l (SW)
	0.056 mg/l (WAS)
PNEC (fest)	0.00231 mg/kg Trockengew (BO)
	0.0019 mg/kg Trockengew (MWS)
	0.019 mg/kg Trockengew (SWS)

(Contd. on page 6)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 5)

78-93-3 butanone	
PNEC (wässrig)	709 mg/l (KA)
	55.8 mg/l (MW)
	55.8 mg/l (SW)
	55.8 mg/l (WAS)
PNEC (fest)	22.5 mg/kg Trockengew (BO)
	284.7 mg/kg Trockengew (MWS)
	284.74 mg/kg Trockengew (SWS)

· Ingredients with biological limit values:

78-93-3 butanone	
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

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

· **8.2 Exposure controls**
· Personal protective equipment:
· General protective and hygienic measures:
Avoid close or long term contact with the skin.
Use skin protection cream for skin protection.
Do not eat, drink, smoke or sniff while working.
Clean skin thoroughly immediately after handling the product.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· 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

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: 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 ≤ 3, 120 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

(Contd. on page 7)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 6)

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)

· Not suitable are gloves made of the following materials: Natural rubber, NR
Nitrile rubber, NBR
Strong material gloves
Leather 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:	Colourless
· Odour:	weak
· pH-value:	Not applicable
· Change in condition	
Melting point/freezing point:	-10 °C
Initial boiling point and boiling range:	Undetermined.
· Flash point:	>60 °C
· Decomposition temperature:	> +60 °C (SADT)
· 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:	2.1 Vol %
Upper:	11.5 Vol %
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.17 g/cm³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic at 20 °C:	25 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	61.2 %
· **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

(Contd. on page 8)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 7)

· **10.3 Possibility of hazardous reactions** Reacts with reducing agents.
Reacts with heavy metals.
Reacts with amines.
Reacts with acids, alkalis and oxidising agents.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.

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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)		
Oral	LD50	7,063 mg/kg
Inhalative	LC50/4 h	10.4 mg/l (rat)

141-78-6 ethyl acetate		
Oral	LD50	4,100 mg/kg (mouse)
		5,620 mg/kg (rat)
		4,934 mg/kg (rbt)
	NOAEL-Werte	900 mg/kg (rat)
Dermal	LD50	>18,000 mg/kg (rabbit)
Inhalative	LC50	58 mg/l (rat)
	LC50/4 h	1,600 mg/l (rat)
	LC50/1h	200 mg/l (rat)
	LC50/8h	5.86 mg/l (rat)
	LC50/48h	333 mg/l (Leuciscus idus)

131-11-3 dimethyl phthalate		
Oral	LD50	6,800 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)

1338-23-4 2-Butanone, peroxide		
Oral	LD50	1,017 mg/kg (rat)
Dermal	LD50	4,000 mg/kg (rat)
Inhalative	LC50/4 h	1.5 mg/l (rat)

78-93-3 butanone		
Oral	LD50	>2,193 mg/kg (rat) (OECD 423)
Dermal	LD50	>8,000 mg/kg (cuniculosus)
		>5,000 mg/kg (rbt) (OECD 402)
Inhalative	LC50/4 h	34 mg/l (rat)
	LC50/8h	23.5 mg/l (rat)

· Primary irritant effect:
· Skin corrosion/irritation Causes severe skin burns and eye damage.
· Serious eye damage/irritation Causes serious eye damage.
· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
· 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 drowsiness or dizziness.
· STOT-repeated exposure Based on available data, the classification criteria are not met.

(Contd. on page 9)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 8)

· 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:

141-78-6 ethyl acetate	
EC50/96h	220 mg/l (Pimephales promelas)
EC10/18h	2,900 mg/l (pseudomonas putida)
EC50/48h	610 mg/l (daphnia magna) (DIN 38412)
	5,600 mg/l (Desmodesmus subspicatus)
IC50/48h	3,300 mg/l (Scenedesmus subspicatus)
LC 0	29.3 mg/l (rat)
NOELR/72h	>100 mg/l (Desmodesmus subspicatus)
NOEC/21d	2.4 mg/l (daphnia magna)
EC10	2,900 mg/l (pseudomonas putida)
EC50/48h	3,300 mg/l (Scenedesmus subspicatus)
LC50/96h	230 mg/l (Oncorhynchus mykiss)
	230 mg/l (Pimephales promelas)
131-11-3 dimethyl phthalate	
EC50/96h	39.8 mg/l (Selenastrum capricornutum)
EC50/48h	33 mg/l (daphnia magna)
LC50/96h	0.42 mg/l (lem)
1338-23-4 2-Butanone, peroxide	
EC50	48 mg/l (BES)
EC50/48h	39 mg/l (daphnia magna)
ErC50/72h	5.6 mg/l (Pseudokirchneriella subcapitata)
EC10	12 mg/l (BES)
LC50/96h	44.2 mg/l (poecilia reticulata)
78-93-3 butanone	
EC5	1,150 mg/l (pseudomonas putida)
EC0	1,150 mg/l (pseudomonas putida) (DIN 38412)
IC5/7d	>4,300 mg/l (scenedesmus quadricauda)
EC50/48h	308 mg/l (daphnia magna) (OECD 202)
EC50/72h	1,972 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
LC50/96h	3,220 mg/l (lem)
	2,993 mg/l (pimephales promelas) (OECD 203)

· **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.

· Additional ecological information:

· General notes: Do not allow product to reach ground water, water course or sewage system.
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.

(Contd. on page 10)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 9)

· **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	
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 09 00	oxidising substances
16 09 03*	peroxides, for example hydrogen peroxide

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

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SECTION 14: Transport information

· **14.1 UN-Number**
· ADR, IMDG, IATA UN3105

· **14.2 UN proper shipping name**
· ADR 3105 ORGANIC PEROXIDE TYPE D, LIQUID (Methylethylketoneperoxide)
· IMDG, IATA ORGANIC PEROXIDE TYPE D, LIQUID (Methylethylketoneperoxide)

· **14.3 Transport hazard class(es)**

· ADR

· Class 5.2 (P1) Organic peroxides.
· Label 5.2

· IMDG, IATA

· Class 5.2 Organic peroxides.
· Label 5.2

· **14.4 Packing group**
· ADR, IMDG, IATA Void

· **14.5 Environmental hazards:**
· Marine pollutant: No

· **14.6 Special precautions for user** Warning: Organic peroxides.
· Hazard identification number (Kemler code): -
· EMS Number: F-J,S-R
· Stowage Category A

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

(Contd. on page 11)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 10)

· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	125 ml
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	125 ml
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3105 ORGANIC PEROXIDE TYPE D, LIQUID (METHYLETHYLKETONEPEROXIDE), 5.2

*
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	P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES
· Qualifying quantity (tonnes) for the application of lower-tier requirements	50 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements	200 t
· REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3

· 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	716.0 g/l
· **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.
H240 Heating may cause an explosion.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

(Contd. on page 12)

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

Printing date 27.01.2021 Version number 14 Revision: 27.01.2021

Trade name: Hardener, liquid

(Contd. of page 11)

H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.

· Recommended restriction of use: refer to Technical Data Sheet (TDS)

· Department issuing SDS: Laboratory
· Contact: Elke Hake
Fon ++49 (0)911 64296-59
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· 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 relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Org. Perox. A: Organic peroxides – Type A
Org. Perox. D: Organic peroxides – Type C/D
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
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