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

Printing date 03.08.2022 Version number 3 Revision: 03.08.2022

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

- · 1.1 Product identifier
  - · Trade name: Universal Adhesive
- · 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 Tray adhesive for use with silicone impression materials
- · 1.3 Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany)

Tel.: +49 (0)800 4372522

· Informing department: E-Mail: msds@kulzer-dental.com

· 1.4 Emergency telephone number: Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

#### SECTION 2: Hazards identification

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

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

Skin Irrit. 2 H315 Causes skin irritation.

H318 Eve Dam. 1 Causes serious eye damage.

Aquatic Chronic 3 H412 (M=10) Harmful to aquatic life with long lasting effects.

· 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms





GHS02 GHS05

- · Signal word Danger
- · Hazard-determining components of labelling:

tetra-n-butoxytitanium

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

P321 Specific treatment (see on this label).

· 2.3 Other hazards -

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· Results of PBT and vPvB assessment

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PF	T.

556-67-2 octamethylcyclotetrasiloxane

· vPvB:

556-67-2 octamethylcyclotetrasiloxane

### **SECTION 3: Composition/information on ingredients**

#### · 3.2 Mixtures

Description: -

Description		
· Dangerous components:		
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46-xxxx	ethyl acetate Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336 EUH066	≥10-<20%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 2119488216-32-xxxx	xylene, mixed isomers, pure Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≥0-<10%
CAS: 5593-70-4 EINECS: 227-006-8	tetra-n-butoxytitanium Flam. Liq. 3, H226 Eye Dam. 1, H318 Skin Irrit. 2, H315	≥3-<5%
CAS: 100-41-4 EINECS: 202-849-4	ethylbenzene Flam. Liq. 2, H225 STOT RE 2, H373; Asp. Tox. 1, H304 Acute Tox. 4, H332	≥0-≤5%
CAS: 556-67-2 EINECS: 209-136-7 Reg.nr.: 01-2119529238-36-xxxx	octamethylcyclotetrasiloxane Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 (M=10) PBT; vPvB	≥0.025-<0.25%

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
  - · After inhalation Supply fresh air; consult doctor in case of symptoms.
  - · After skin contact If skin irritation continues, consult a doctor.
  - · After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

· After swallowing

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- · **4.3 Indication of any immediate medical attention and special treatment needed**No further relevant information available.

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## SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

· 5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

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

5.3 Advice for firefighters

- · Protective equipment: No special measures required.
- Additional information -

#### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Prevent material from reaching sewage system, holes and cellars.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections

No dangerous materials are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

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### SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

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 containers: Store in cool location.
    - · Information about storage in one common storage facility: Not required.
    - · Further information about storage conditions:
    - Store in cool, dry conditions in well sealed containers.
- · 7.3 Specific end use(s) No further relevant information available.

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		re controls/pers	•
	ol parameters	tical values that roo	uire monitoring at the workplace:
	ethyl acetate	iicai vaiues iliai req	une momtoring at the workplace.
WEL (Gre		Short-term value: 14	68 ma/m³. 400 ppm
(0.0		Long-term value: 73	
IOELV (European Union)		Short-term value: 1468 mg/m³, 400 ppm Long-term value: 734 mg/m³, 200 ppm	
1330-20-7	xylene, mixed	isomers, pure	
WEL (Great Britain)		Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV	
IOELV (Ει	ıropean Union)		
100-41-4	ethylbenzene		
WEL (Gre		Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk	
IOELV (European Union)			
· DNI	=Ls		
	ethyl acetate		
Oral		tion, long term, syste	mic 4.5 mg/Kg (not defined)
Dermal		al, long term, system	,
		tion, long term, syste	,
Inhalative		al, acute, systemic	1,468 mg/m3 (not defined)
	worker industri	•	1,468 mg/m3 (not defined)
	worker industrial, long term, systemic		- · · · · · · · · · · · · · · · · · · ·
	worker industrial, long term, local		734 mg/m3 (not defined)
		tion, acute, systemic	- '
		tion, acute, local	734 mg/m3 (not defined)
		tion, long term, syste	, ,
		tion, long term, local	367 mg/m3 (not defined)
556-67-2		lotetrasiloxane	
Oral			mic 3.7 mg/Kg (not defined)
Inhalative		al, long term, system	
	worker industrial, long term, local		73 mg/m3 (not defined)
	general population, long term, systemic		· , , , , , , , , , , , , , , , , , , ,
		tion, long term, local	13 mg/m3 (not defined)
· PNE	Cs		•
	ethyl acetate		
freshwater		0.24 mg/l (	(not defined)
marine wa	tor		(not defined)



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_		(Contd. of page 4)
	sewage treatment plant	650 mg/l (not defined)
	sediment, dry weight, freshwater	1.15 mg/Kg (not defined)
	sediment, dry weight, marine water	0.115 mg/Kg (not defined)
	soil, dry weight	0.148 mg/Kg (not defined)
	556-67-2 octamethylcyclotetrasile	oxane
	freshwater	0.0015 mg/l (not defined)
	marine water	0.00015 mg/l (not defined)
	sewage treatment plant	10 mg/l (not defined)
	sediment, dry weight, freshwater	3 mg/Kg (not defined)
	sediment, dry weight, marine water	0.3 mg/Kg (not defined)
	· Ingredients with biological	limit values:
	1330-20-7 xylene, mixed isomers,	pure
	BMGV (Great Britain) 650 mmol/m	
	Medium: urin	· ·
	Sampling tim	ie: post shift
	Parameter: n	nethyl hippuric acid

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

### · 8.2 Exposure controls

- · Appropriate engineering controls No further data; see item 7.
- · Individual protection measures, such as personal protective equipment

General protective and hygienic measures

Avoid contact with the eyes.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

· Breathing equipment:

Not neccessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

· Hand protection

Check protective gloves prior to each use for their proper condition.

recommended

· 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Butyl rubber, BR Nitrile rubber, NBR

- Eye/face protection Tightly sealed safety glasses.
- · Body protection: Light weight protective clothing

- GF



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### SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

**General Information** 

Physical state Fluid · Colour: Blue · Smell: Ester-like

Odour threshold: Not determined. · Melting point/freezing point: Not determined

· Boiling point or initial boiling point and

77 °C boiling range

· Flammability Not applicable.

· Lower and upper explosion limit

2.1 Vol % Lower: 11.5 Vol % Upper: 3°C Flash point:

460 °C Ignition temperature:

· Decomposition temperature: Not determined.

SADT

· pH · Viscosity: Not determined.

Kinematic viscosity Not determined. dynamic: Not determined.

Solubility

Not miscible or difficult to mix Water:

· Partition coefficient n-octanol/water (log

Not determined. value)

· Steam pressure at 20 °C: 102 hPa

Density and/or relative density

Density at 20 °C 1.20169 g/cm3 Relative density Not determined. · Vapour density Not determined.

· 9.2 Other information No further relevant information available.

Appearance:

Fluid Form:

· Important information on protection of health and environment, and on safety.

· Self-inflammability: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures is possible.

· Solvent content:

0.0 % Solids content:

Change in condition

· Evaporation rate Not determined.

· Information with regard to physical hazard

classes

**Explosives** Void · Flammable gases Void · Aerosols Void · Oxidising gases · Gases under pressure Void Void

· Flammable liquids Highly flammable liquid and vapour.

· Flammable solids Void · Self-reactive substances and mixtures Void

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		(Contd. of page 6)
· Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit		
flammable gases in contact with water	Void	
· Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
Corrosive to metals	Void	

Void

### SECTION 10: Stability and reactivity

· Desensitised explosives

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
  - Conditions to be avoided: No decomposition if used and stored according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: None
  - · Additional information: -

### SECTION 11: Toxicological information

• 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 • Acute toxicity Based on available data, the classification criteria are not met.

	7.00.00 to		
· <b>LD</b> /I	· LD/LC50 values that are relevant for classification:		
141-78-6 e	141-78-6 ethyl acetate		
Dermal	LD50	>20,000 mg/kg (rabbit)	
1330-20-7	1330-20-7 xylene, mixed isomers, pure		
Oral	LD50	8,700 mg/kg (rat)	
Dermal	LD50	2,000 mg/kg (rabbit)	
Inhalative	LC50/4 h	6,350 mg/l (rat)	
100-41-4	100-41-4 ethylbenzene		
Oral	LD50	3,500 mg/kg (rat)	
Dermal	LD50	17,800 mg/kg (rabbit)	
556-67-2	556-67-2 octamethylcyclotetrasiloxane		
Oral	Oral LD50 >4,800 mg/kg (rat) (OECD 401)		
Dermal	LD50	>2,375 mg/kg (rat) (OECD 402)	
Inhalative	LC50/4 h	36 mg/l (rat) (OECD 403)	

- · Skin corrosion/irritation
- Causes skin irritation.
- · Serious eye damage/irritation

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 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 Based on available data, the classification criteria are not met.

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- · 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.
- · 11.2 Information on other hazards
  - · Endocrine disrupting properties

None of the ingredients is listed.

· vPvB:

556-67-2 octamethylcyclotetrasiloxane

	12: Ecological information
12.1 Toxicity	•
· Aquatic t	
141-78-6 eth	
	230 mg/l (fish)
	2.4 mg/l (daphnia) (OECD 211)
	>100 mg/l (algae) (OECD 201)
	ylene, mixed isomers, pure
LC50/96h	13.4 mg/l (fish)
EC50	165 mg/l (daphnia)
	tamethylcyclotetrasiloxane
EC50/21d	>0.015 mg/L (daphnia) (EPA OTS 797.1330)
EC50/48h	>0.015 mg/l (daphnia) (EPA OTS 797.1300)
_C50/96h	>0.022 mg/l (fish) (EPA OTS 797.1400)
	≥0.0044 mg/l (fish)
	≥0.015 mg/l (daphnia) (EPA OTS 797.1330)
NOEC / 96h	<0.022 mg/l (algae) (EPA OTS 797.1050)
	≥0.022 mg/l (fish) (EPA OTS 797.1400)
	≥0.015 mg/l (daphnia) (EPA OTS 797.1300)
	>0.022 mg/L (algae) (EPA OTS 797.1050)
	ence and degradability
141-78-6 eth	
•	ion 69 % /20d (not defined)
100-41-4 eth	
•	ion 68 % (not defined)
	tamethylcyclotetrasiloxane
Biodegradati	ion   3.7 % /29d (not defined) (OECD 310)
	umulative potential
141-78-6 eth	
	ation factor (BCF) 30 (not defined)
	tamethylcyclotetrasiloxane
	ation factor (BCF)   12,400 (not defined)
	y in soil No further relevant information available.
12.5 Results	s of PBT and vPvB assessment



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· 12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

- · 12.7 Other adverse effects
  - · Additional ecological information:
    - · General notes:

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

Danger to drinking water if even small quantities leak into soil.

### SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
  - Recommendation

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

Disposal must be made according to official regulations.

- · Uncleaned packagings:
  - Recommendation:

Disposal must be made according to official regulations.

Non contaminated packagings can be used for recycling.

14.1 UN number or ID number · ADR, IMDG, IATA	UN1866
14.2 UN proper shipping name · ADR · IMDG, IATA	1866 RESIN SOLUTION, special provision 64 RESIN SOLUTION
14.3 Transport hazard class(es) · ADR	
· Class · Label	3 (F1) Flammable liquids. 3
· IMDG, IATA	
· Class · Label	3 Flammable liquids. 3
14.4 Packing group · ADR, IMDG, IATA	II .
14.5 Environmental hazards: • Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.



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· Kemler Number: F-E,S-E · EMS Number: Stowage Category В

· 14.7 Maritime transport in bulk according to

IMO instruments Not applicable.

· Transport/Additional information:

· Limited quantities (LQ)

Excepted quantities (ÉQ) Code: E2

Maximum net quantity per inner packaging:

Maximum net quantity per outer packaging:

500 ml

· Transport category Tunnel restriction code D/E

·IMDG

· Limited quantities (LQ) 5L Excepted quantities (ÉQ) Code: E2

Maximum net quantity per inner packaging:

30 ml

Maximum net quantity per outer packaging:

500 ml

UN 1866 RESIN SOLUTION, SPECIAL · UN "Model Regulation":

PROVISION 640D, 3, II

### SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/18/EU
    - · Named dangerous substances ANNEX I None of the ingredients is listed.
    - · Seveso category P5c FLAMMABLE LIQUIDS

    - Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
    - · Other regulations, limitations and prohibitive regulations
      - Substances of very high concern (SVHC) according to REACH, Article 57

556-67-2 octamethylcyclotetrasiloxane

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

#### SECTION 16: Other information

These data are based on our present knowledge. However, they 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.

Harmful in contact with skin. H312

Causes skin irritation.

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\* Data compared to the previous version altered.

(Contd. of page 10) Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. H361f Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure. H373 H410 Very toxic to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking. Abbreviations and acronyms: SADT: Self Accelerating Decomposition Temperature 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 INDES: International Maritime Code to 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 (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category ?

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

GB