



**Safety Data Sheet
according to WHS Regulations**

Printing date 24.06.2024

Version number 4

Revision: 24.06.2024

Hazardous according to criteria of Australian Safety and Compensation Council.

1 Identification

· **Product identifier**

· Trade name: **Universal Adhesive**

· **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

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
Kulzer Australia Pty Ltd
Unit 20, 53 Lorraine St
PEAKHURST NSW 2210
Australia

Tel: +61 (02) 9153 0311

· **Informing department:** see above

· **Emergency telephone number:**
Poison Information Number: Australia 13 11 26 & New Zealand 0800 764 766

2 Hazard(s) Identification

· **Classification of the substance or mixture**

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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**
tetra-n-butoxytitanium

· **Hazard statements**

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye damage.

May cause drowsiness or dizziness.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Avoid release to the environment.

Wear protective gloves / eye protection.

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Wear protective clothing.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

· **Other hazards -**

· **Results of PBT and vPvB assessment**

· PBT:	
556-67-2	octamethylcyclotetrasiloxane
· vPvB:	
556-67-2	octamethylcyclotetrasiloxane

3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**

· **Description: -**

· **Dangerous components:**

141-78-6	ethyl acetate Flam. Liq. 2, H225 Serious eye damage/irritation – Category 2A, H319; STOT SE 3, H336	≥10-≤25%
1330-20-7	xylene, mixed isomers, pure Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; STOT SE 3, H335	≥0-<10%
5593-70-4	tetra-n-butoxytitanium Flam. Liq. 3, H226 Eye Dam. 1, H318 Skin Irrit. 2, H315; STOT SE 3, H335-H336	≥3-≤5%
100-41-4	ethylbenzene Flam. Liq. 2, H225 STOT RE 2, H373; Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Serious eye damage/irritation – Category 2A, H319	≥0-≤5%
556-67-2	octamethylcyclotetrasiloxane Flam. Liq. 3, H226 Repr. 2, H361 PBT; vPvB	<1%

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

4 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.

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· **Information for doctor**

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

5 Fire Fighting Measures

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

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Prevent material from reaching sewage system, holes and cellars.
- **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
- **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.
-

7 Handling and Storage

- **Handling**
 - **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.
- **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.

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

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8 Exposure controls and personal protection

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

· **Components with critical values that require monitoring at the workplace:**

141-78-6 ethyl acetate

WES Short-term value: 1440 mg/m³, 400 ppm
Long-term value: 720 mg/m³, 200 ppm

1330-20-7 xylene, mixed isomers, pure

WES Short-term value: 655 mg/m³, 150 ppm
Long-term value: 350 mg/m³, 80 ppm

100-41-4 ethylbenzene

WES Short-term value: 543 mg/m³, 125 ppm
Long-term value: 434 mg/m³, 100 ppm

· **DNELs**

141-78-6 ethyl acetate

Oral	general population, long term, systemic	4.5 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	63 mg/Kg/d (not defined)
	general population, long term, systemic	37 mg/Kg/d (not defined)
Inhalative	worker industrial, acute, systemic	1,468 mg/m ³ (not defined)
	worker industrial, acute, local	1,468 mg/m ³ (not defined)
	worker industrial, long term, systemic	734 mg/m ³ (not defined)
	worker industrial, long term, local	734 mg/m ³ (not defined)
	general population, acute, systemic	734 mg/m ³ (not defined)
	general population, acute, local	734 mg/m ³ (not defined)
	general population, long term, systemic	367 mg/m ³ (not defined)
	general population, long term, local	367 mg/m ³ (not defined)

556-67-2 octamethylcyclotetrasiloxane

Oral	general population, long term, systemic	3.7 mg/Kg (not defined)
Inhalative	worker industrial, long term, systemic	73 mg/m ³ (not defined)
	worker industrial, long term, local	73 mg/m ³ (not defined)
	general population, long term, systemic	13 mg/m ³ (not defined)
	general population, long term, local	13 mg/m ³ (not defined)

· **PNECs**

141-78-6 ethyl acetate

freshwater	0.24 mg/l (not defined)
marine water	0.024 mg/l (not defined)
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)

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soil, dry weight	0.148 mg/Kg (not defined)
556-67-2 octamethylcyclotetrasiloxane	
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)

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

· **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 necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

· **Protection of hands:**

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 through 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 protection:** Tightly sealed safety glasses.

· **Body protection:** Light weight protective clothing

9 Physical and Chemical Properties

· **General Information**

· **Appearance:**

· **Form:**

Fluid

· **Colour:**

Blue

· **Smell:**

Ester-like

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

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- **Change in condition**
 - **Melting point/freezing point:** Not determined
 - **Initial boiling point and boiling range:** 77 °C
- **Flash point:** 3 °C
- **Inflammability (solid, gaseous)** Not applicable.
- **Auto-ignition temperature:** 460 °C
- **Decomposition temperature:** Not determined.
- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
- **Critical values for explosion:**
 - **Lower:** 2.1 Vol %
 - **Upper:** 11.5 Vol %
- **Steam pressure at 20 °C:** 102 hPa
- **Density at 20 °C** 1.20169 g/cm³
 - **Relative density** Not determined.
 - **Vapour density** Not determined.
 - **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
 - **Water:** Not miscible or difficult to mix
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - **dynamic:** Not determined.
 - **kinematic:** Not determined.
- **Solvent content:**
 - **Solids content:** 0.0 %
- **Other information** No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** None
- **Additional information:** -

11 Toxicological Information

- **Information on toxicological effects**
 - **Acute toxicity** Based on available data, the classification criteria are not met.

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

141-78-6 ethyl acetate

Dermal	LD50	>20,000 mg/kg (rabbit)
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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 ethylbenzene

Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)

556-67-2 octamethylcyclotetrasiloxane

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**
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.

12 Ecological Information

· **Toxicity**

· **Aquatic toxicity:**

141-78-6 ethyl acetate

LC50/96h	230 mg/l (fish)
NOEC / 21d	2.4 mg/l (daphnia) (OECD 211)
NOEC / 72h	>100 mg/l (algae) (OECD 201)

1330-20-7 xylene, mixed isomers, pure

LC50/96h	13.4 mg/l (fish)
EC50	165 mg/l (daphnia)

556-67-2 octamethylcyclotetrasiloxane

EC50/21d	>0.015 mg/L (daphnia) (EPA OTS 797.1330)
EC50/48h	>0.015 mg/l (daphnia) (EPA OTS 797.1300)
LC50/96h	>0.022 mg/l (fish) (EPA OTS 797.1400)
NOEC / 91d	≥0.0044 mg/l (fish)
NOEC / 21d	≥0.015 mg/l (daphnia) (EPA OTS 797.1330)
NOEC / 96h	<0.022 mg/l (algae) (EPA OTS 797.1050)

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NOEC / 48h	≥0.022 mg/l (fish) (EPA OTS 797.1400)
ErC50/ 96h	≥0.015 mg/l (daphnia) (EPA OTS 797.1300)
	>0.022 mg/L (algae) (EPA OTS 797.1050)

· **Persistence and degradability**

141-78-6 ethyl acetate

Biodegradation 69 % /20d (not defined)

100-41-4 ethylbenzene

Biodegradation 68 % (not defined)

556-67-2 octamethylcyclotetrasiloxane

Biodegradation 3.7 % /29d (not defined) (OECD 310)

· **Behaviour in environmental systems:**

· **Bioaccumulative potential**

141-78-6 ethyl acetate

Bloconcentration factor (BCF) 30 (not defined)

556-67-2 octamethylcyclotetrasiloxane

Bloconcentration factor (BCF) 12,400 (not defined)

· **Mobility in soil** No further relevant information available.

· **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.

· **Results of PBT and vPvB assessment**

· **PBT:**

556-67-2 octamethylcyclotetrasiloxane

· **vPvB:**

556-67-2 octamethylcyclotetrasiloxane

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **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.

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14 Transport information

· UN-Number	UN1866
· ADG, IMDG, IATA	
· UN proper shipping name	1866 RESIN SOLUTION, special provision 640D
· ADG	RESIN SOLUTION
· IMDG, IATA	
· Transport hazard class(es)	
· ADG	
	
· Class	3 (F1) Flammable liquids.
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	II
· ADG, IMDG, IATA	
· Environmental hazards:	No
· Marine pollutant:	
· Special precautions for user	Warning: Flammable liquids.
· Kemler Number:	33
· EMS Number:	F-E, S-E
· Stowage Category	B
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	-
· ADG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E

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· **IMDG**

- **Limited quantities (LQ)**
- **Excepted quantities (EQ)**

5L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1866 RESIN SOLUTION, SPECIAL PROVISION
640D, 3, II

15 Regulatory information

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

· **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **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

· **National regulations**

The product is subject to classification in accordance with the prevailing version of the regulations on hazardous materials.

· **Other regulations, limitations and prohibitive regulations**

· **AICS - Australian Inventory of Chemical Substances**

All ingredients are listed.

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

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.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

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H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

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

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

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

Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A

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

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

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