

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

- · 1.1 Product identifier
- · Trade name: TRU-FLEX 40 FC PU SEALANT
- · Article number: D205/6/7
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- · 1.2.1 Relevant identified uses
- · Sector of Use
- SU3 Industrial uses: uses of substances as such or in preparations at industrial sites
- SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- SU21 Consumer uses: Private households / general public / consumers
- · Product category PC1 Adhesives, sealants
- · Process category PROC4 Chemical production where opportunity for exposure arises
- Environmental release category ERC5 Use at industrial site leading to inclusion into/onto article
- · Application of the substance / the preparation : Polyurethane sealant
- · 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: DELTA ADHESIVES LTD. 39-40 CLAYCLIFFE BUSINESS PARK BARUGH GREEN, BARNSLEY SOUTH YORKSHIRE S75 1JU Phone: +44 (0) 1226 381571 Fax : +44 (0) 1226 381722 E-mail : info@delta-adhesives.co.uk Internet : http://www.delta-adhesives.co.uk

· Information department: Laboratory

· 1.4 Emergency telephone number: +44 (0)1226 381571 (office hours)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the CLP regulation.
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information :
- Contains reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6pentamethyl-4-piperidyl sebacate. May produce an allergic reaction. Safety data sheet available on request.
- Contains isocyanates. May produce an allergic reaction.
- · Classification system Non-irritating to rabbit's eye (method : OECD guideline 405)
- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.



SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Adhesive containing a polyurethane prepolymer based on diphenylmethanediisocyanate

· Dangerous components:		
CAS: 9002-86-2	polyvinyl chloride substance with a Community workplace exposure limit	20-50%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	xylene, mixture of isomers Flam. Liq. 3, H226; () Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	2-5%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17	titanium dioxide substance with a Community workplace exposure limit	<5%
CAS: 1305-78-8 EINECS: 215-138-9 Reg.nr.: 01-2119475325-36	calcium oxide � Eye Dam. 1, H318; � Skin Irrit. 2, H315; STOT SE 3, H335	<2.5%
CAS: 1309-37-1 EINECS: 215-168-2 Reg.nr.: 01-2119457614-35	diiron trioxide substance with a Community workplace exposure limit	<2%
EC number: 926-141-6 Reg.nr.: 01-2119456620-43	hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	<2%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Aquatic Chronic 3, H412	<2%
CAS: 1305-62-0 EINECS: 215-137-3 Reg.nr.: 01-2119475151-45	calcium dihydroxide � Eye Dam. 1, H318;	<0.5%
CAS: 1333-86-4 EINECS: 215-609-9 Reg.nr.: 01-2119384822-32	carbon black substance with a Community workplace exposure limit	<0.5%
CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	4,4'-methylenediphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	<0.1%

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- · General information Immediately remove any clothing soiled by the product.
- After inhalation
- Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- In case of unconsciousness, place patient stably in side position for transportation.
- After skin contact Immediately wash with water and soap and rinse thoroughly.
- After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing Do not induce vomiting; call for medical help immediately.
- \cdot 4.2 Most important symptoms and effects, both acute and delayed
- Drowsiness Headache Dizziness
- Nausea
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.



SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents

 Carbon dioxide
 Foam
 Fire-extinguishing powder
 For safety reasons unsuitable extinguishing agents Water with full jet.
 5.2 Special hazards arising from the substance or mixture
- In case of fire, the following can be released: Carbon monoxide (CO) Nitrogen oxides (NOx) In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.: Hydrogen cyanide (HCN) Isocyanates • **5.3 Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation. Keep away from ignition sources.
- 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.
- · 6.3 Methods and material for containment and cleaning up:
- Pick up mechanically. Send for recovery or disposal in suitable receptacles. Do not close them (reaction with water forming carbon dioxide). • 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 Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles: Provide ventilation for receptacles.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:
- Keep receptacle tightly sealed.
- Store in dry conditions. Store in a cool place.
- 7.3 Specific end use(s) No further relevant information available.



SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace:

9002-86-2 polyvinyl chloride

WEL Long-term value: 10* 4** mg/m³ inhalable dust **respirable dust

1330-20-7 xylene, mixture of isomers

WEL Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV

13463-67-7 titanium dioxide

WEL Long-term value: 10* 4** mg/m³ *total inhalable **respirable

1305-78-8 calcium oxide

WEL Long-term value: 2 mg/m³

1309-37-1 diiron trioxide

WEL Short-term value: 10* mg/m³ Long-term value: 5* 10** 4*** mg/m³ * fume (as Fe),**total respirable,***respirable

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

- RCP-TWA Long-term value: 1200 mg/m³
- VME Long-term value: 1200 mg/m³

100-41-4 ethylbenzene

WEL Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk

1305-62-0 calcium dihydroxide

WEL Long-term value: 5 mg/m³

1333-86-4 carbon black

WEL Short-term value: 7 mg/m³ Long-term value: 3.5 mg/m³

101-68-8 4,4'-methylenediphenyl diisocyanate

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

· Ingredients with biological limit values:

1330-20-7 xylene, mixture of isomers

BMGV 650 mmol/mol creatinine Medium: urine Sampling time: post shift

Parameter: methyl hippuric acid

• Additional information: The lists that were valid during the creation were used as basis.

(Contd. of page 4)



- 8.2 Exposure controls
- · Personal protective equipment
- General protective and hygienic measures Wash hands before breaks and at the end of work. Avoid close or long term contact with the skin.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation: Short term filter device: Filter AB
- Protection of hands:
- PVA gloves of superior quality.

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.

· Eye protection: Not required.

SECTION 9: Physical and chemical properties

•	
 9.1 Information on basic physical and c General Information Appearance: 	chemical properties
Form:	Deetu
	Pasty
Colour:	Various colours
• ·	cherry
· Odour:	Light
 Change in condition Melting point/freezing point: Initial boiling point and boiling range. 	undetermined : 137 °C
Flash point:	40-55 °C
· Flammability (solid)	The product is not subject to classification because its speed of combustion is lower than the limit of the regulation.
Self-ignition temperature:	> 200 °C
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible
• Explosion limits:	
Lower:	0.6 Vol %
Upper:	8 Vol %
	0 101 /0
· Density at 20 °C:	1.16
 Solubility in / Miscibility with Water: 9.2 Other information Volatile organic compounds (VOC) : 	Insoluble No further relevant information available. <9%

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.



(Contd. of page 5)

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with alcohols, amines, aqueous acids and alkalis. Reacts with water forming carbon dioxide.Danger of receptacles bursting because of vapour overpressure.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values that are relevant for classification:

1330-20-7 xylene, mixture of isomers

Oral	LD50	8,700 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rbt)
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 (rbt)

- · Primary irritant effect:
- · Skin corrosion/irritation May be slightly irritant.
- · Serious eye damage/irritation May be slightly irritant.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information: Non-irritating to rabbit's eye (method : OECD guideline 405)
- · 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 Based on available data, the classification criteria are not met.
- · 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.

SECTION 12: Ecological information

· 12.1 Toxicity

- · Aquatic toxicity: No further relevant information available.
- 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:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water course or sewage system.

- 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.

· vPvB: Not applicable.



SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation
- Must be disposed of in an incinerator for hazardous waste according to official regulations.
- · Waste disposal key: 08 04 09*
- · Uncleaned packaging :
- · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information	
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
 14.2 UN proper shipping name ADR, ADN, IMDG IATA 	Void Not regulated
 14.3 Transport hazard class(es) 	
· ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
 14.6 Special precautions for user Stowage Category 	Not applicable. B
 14.7 Transport in bulk according to Annex II o Marpol and the IBC Code 	f Not applicable.
• Transport/Additional information:	Not classified as hazardous for transport as specified in paragraphs 2.2.41.1.5 of the ADR code, 2.4.2.2.2.1 of the IMDG code and 3.4.1.1.2.1 of the IATA code as the product is a solid and as its combustion speed is lower than 2.2 mm/s
· UN "Model Regulation":	Void

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.

- · French VOC regulation (decree n° 2011-321) : Class A+
- · Biocides regulation (UE/2012/528)
- None of the ingredients is listed.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

[·] National regulations



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. This data sheet is particularly in accordance with the european regulations 1907/2006/EC, 1272/2008/ EC and their amendments; it is written according to annex II of the european regulation 830/2015/EC.

· 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.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to the hearing organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

· Department issuing SDS: Laboratory

- · Contact: cf. § 1
- · Review :

An asterisk in the margin of a paragraph means amendments in comparison to the former version. • Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) 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 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Carc. 2: Carcinogenicity - 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 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3



Annex: Exposure scenario

- · Name xylene, mixture of isomers
- · Short title of the exposure scenario

Industrial use for rigid foam, coatings and adhesives and sealants

Professional end use in rigid foam, coatings, adhesives and sealants and other composite material Consumer end use in rigid foam, coatings and adhesives and sealants

Sector of Use

SU3 Industrial uses: uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) SU3 Industrial uses: uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU21 Consumer uses: Private households / general public / consumers

· Product category

PC1 Adhesives, sealants

PC32 Polymer preparations and compounds

· Process category

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including

weighing)

PROC15 Use as laboratory reagent

· Environmental release category

ERC2 Formulation into mixture

ERC5 Use at industrial site leading to inclusion into/onto article

ERC8c Widespread use leading to inclusion into/onto article (indoor)

ERC8f Widespread use leading to inclusion into/onto article (outdoor)

· Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

· Conditions of use

Customary application according to section 1. According to directions for use.

· Duration and frequency

SU3 and SU22 :

Up to 8 h per day, 300 days per year

SU21, PC1 (adhesives, sealants) :

Up to 1 times per day, 365 days per year

Concentrations up to 25 %

Exposed skin surface (hands) up to 35.73 cm²

Amounts used/applied per event : 75 g

```
Room volume : > 20 m^3
```

Exposition up to 1 hour(s) per event

- · Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Other operational conditions
- · Other operational conditions affecting environmental exposure Local fresh water dilution factor: 10 Local marine water dilution factor : 100



 Other operational conditions affecting worker exposure Indoor application.

Outdoor application. Do not breathe gas/vapour/aerosol. Avoid contact with the skin, eyes and clothing. Avoid contact with the skin.

- · Other operational conditions affecting consumer exposure Keep out of the reach of children.
- Other operational conditions affecting consumer exposure during the use of the product Application temperature : room temperature
- · Risk management measures
- · Worker protection

<u>SU3 :</u>

Avoid direct contact with skin. Identify potential areas for indirect contact with the skin. Wear gloves (EN 374) if there is a risk of contact of the substance with the skin. Remove impurities / quantities immediately after spilling. Wash skin immediately after handling. Complete basic training of personnel, so that exposure is minimized and eventually the skin problems are reported. Other measures of skin protection are required, such as waterproof clothing and a protective mask during activities with high spread, leading to the likely significant release of aerosols (e.g. spraying).

Mixing operations (closed systems) : provide adequate general ventilation (not less than 3 to 5 air changes per hour).

Preparation of material for application / blending operations (open systems) : provide adequate controlled ventilation (10 to 15 air changes per hour).

Spray (automatic / robotic) : carry out in ventilated booth with laminar air flow.

Spray : ensure an adequate controlled ventilation (10 to 15 air changes per hour). Wear a respiratory protection (standard EN 140 with Type A filter or better).

Roller coating, spraying and flow coating : provide additional ventilation where emissions occur. Storage with occasional controlled exposure : store substance in a closed system.

Cleaning : ensure an adequate controlled ventilation (10 to 15 air changes per hour) SU 22 :

Avoid direct contact with skin. Identify potential areas for indirect contact with the skin. Wear gloves (EN 374) if there is a risk of contact of the substance with the skin. Remove impurities / quantities

immediately after spilling. Wash skin immediately after handling. Complete basic training of personnel, so that exposure is minimized and eventually the skin problems are reported. Other measures of skin protection are required, such as waterproof clothing and a protective mask during activities with high spread, leading to the likely significant release of aerosols (e.g. spraying).

Preparation of material for indoor application : provide adequate controlled ventilation (10 to 15 air changes per hour); avoid activities with more than 1 hour exposure.

Preparation of material for outdoor application : ensure that exploitation takes place outdoors ; avoid activities with more than 1 hour exposure.

Indoor roller coating, spraying and flow coating : ensure adequate controlled ventilation (10 to 15 air changes per hour) ; wear respiratory protection (standard EN 140 with Type A filter or better).

Outdoor roller coating, spray and flow coating : ensure that the operation takes place outdoors, wear respiratory protection (standard EN 140 with Type A filter or better).

Indoor spraying : carry out in ventilated booth with laminar air flow.

Outdoor spraying : ensure that the operation takes place outdoors ; avoid activities with more than 4 hours exposure ; wear a full face respirator according to standard EN136 with Type A filter or better. Cleaning and maintenance of equipment : extinguish systems before opening and maintenance of equipment ; avoid activities with more than 4 hours exposure.

Storage with occasional controlled exposure : store substance in a closed system ; ensure an adequate controlled ventilation (10 to 15 air changes per hour).

Do not eat, drink, smoke while working.

· Organisational protective measures

SU3 and SU 22 :

Do not apply industrial sludge to natural soils. Sewage sludge has to be incinerated, stored or treated.



(Contd. of page 10)

Ensure that activities are executed by specialists or authorised personnel only.

- **Technical protective measures** Ensure good ventilation/exhaustion at the workplace. Ensure that suitable extractors are available on processing machines Take note of emission threshold.
- **Personal protective measures** Avoid contact with the eyes and skin. Wear approved protective gloves (EN 374) ; if contamination of hands is likely, wash skin contamination immediately.

Do not inhale gases / fumes / aerosols.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air. Wear a respiratory protection (standard EN 140 with Type A filter or better).

Avoid contact with the skin.

Protective work clothing.

· Measures for consumer protection

Ensure adequate labelling. Protective gloves Tightly sealed goggles.

Keep out of reach of children.

Keep locked up and out of the reach of children.

- · Environmental protection measures
- · Air No special measures required.
- · Water
- Do not allow to reach sewage system.

On-site wastewater treatment (before release into the water) to achieve the required level of cleaning : 93.6 %

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

· Soil Prevent contamination of soil.

· Disposal measures

Do not apply industrial sludge to natural soils. Ensure that waste is collected and contained.

· Disposal procedures

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

· Guidance for downstream users

For the risk assessment, the tools recommended by ECHA can be used.

Delta Adhesives Limited, Units 39-40 Claycliffe Business Park, Cannon Way, Barugh Green, Barnsley, South Yorkshire, S75 1JU, Tel: +44 (0) 1226 381 571 email: sales@delta-adhesives.co.uk

