

# HVU-TZ M10-M20

## Safety Data Sheet

Compiled according to GB/T 16483, GB/T 17519

Version:15.0

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Supersedes: 2019/04/04

## SECTION 1 Chemical product and company identification

### Product identifier

Product form Mixture  
Generic name HVU-TZ M10-M20  
Product code BU Anchor  
Chemical Chinese name 锚固嵌缝剂 HVU-TZ  
Chemical English name Adhesive Capsule HVU-TZ



Recommended use of the chemical For professional use only  
Adhesive anchor capsule for anchor fastening in concrete

### Details of the supplier of the safety data sheet

**Supplier**  
Hilti (China) Ltd.  
8F, Tower 2, No.58 Yao Yuan Rd.  
Pudong District  
200126 Shanghai - China  
T +86 21 6016 7316

**Department issuing data specification sheet**  
Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

### Emergency telephone number

Emergency number Schweizerisches Toxikologisches Informationszentrum -  
24h Service  
+41 44 251 51 51 (international)

Country	Organisation/Company	Address	Emergency number
China	中国境内化学事故应急咨询电话 / chemical accident emergency consultation service hotline (24/7)		+86 532 83889090

## SECTION 2 Hazards identification

### Emergency overview

foil capsule. resin: yellowish liquid  
hardener: white powder. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Use personal protective equipment as required. Equip cleanup crew with proper protection

### GHS hazard classification

Health hazards Skin sensitization, Category 1  
Reproductive toxicity, Category 1B



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Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	5 - 10	2082-81-7
dicyclohexyl phthalate	1 - 2.5	84-61-7
dibenzoyl peroxide	0.5 - <1.5	94-36-0
1,1'-(p-tolylimino)dipropan-2-ol	0.1 - 1	38668-48-3

## SECTION 4 First-aid measures

### Description of necessary first-aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest
First-aid measures after skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists
First-aid measures after ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention

### Most important symptoms/effects

Symptoms/effects after eye contact	May cause severe irritation
Symptoms/effects after skin contact	May cause an allergic skin reaction.

### Advices for first aid responders

No additional information available

### Notes for the doctor

Other medical advice or treatment	Treat symptomatically
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## SECTION 5 Fire-fighting measures

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### Extinguishing media

Suitable extinguishing media	Water spray Carbon dioxide Dry powder Foam Sand
Unsuitable extinguishing media	Do not use a heavy water stream

### Specific hazards

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide
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### Advice for firefighters and protective measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Heat and ignition sources	Keep away from heat and direct sunlight
General measures	Spilled material may present a slipping hazard
Personal Precautions, Protective Equipment and Emergency Procedures	No additional information available

### For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel
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### For emergency responders

Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection
Emergency procedures	Ventilate area

### Environmental precautions

Prevent entry to sewers and public waters
Notify authorities if liquid enters sewers or public waters

### Methods and material for containment and cleaning up

Methods for cleaning	No additional information available
For containment	Collect spillage.

### Prevention measures for secondary accidents

Prevention Measures for Secondary Accidents	No additional information available
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Other information

Dispose of materials or solid residues at an authorized site

### SECTION 7 Handling and storage

#### Handling

Precautions for safe handling	<p>Wear personal protective equipment</p> <p>Avoid contact with skin and eyes</p> <p>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work</p> <p>Provide good ventilation in process area to prevent formation of vapour</p>
Hygiene measures	<p>Do not eat, drink or smoke when using this product.</p> <p>Always wash hands after handling the product</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <p>Wash contaminated clothing before reuse.</p>
Local and general ventilation	<p>No additional information available</p>

#### Storage

Storage conditions	<p>Keep cool. Protect from sunlight.</p> <p>Expiry date: See date printed on box and capsule. Do not use if expiry date has been exceeded!</p>
Material used in packaging/containers	No additional information available
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 ° C
Heat and ignition sources	Keep away from heat and direct sunlight

### SECTION 8 Exposure controls / Personal protection equipment

#### Occupational exposure limits

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China - Occupational Exposure Limits	
OEL PC-TWA	5 mg/m <sup>3</sup>
Regulatory reference	GBZ 2.1-2019

dibenzoyl peroxide (94-36-0)	
China - Occupational Exposure Limits	
Local name	过氧化苯甲酰 # Benzoyl peroxide
OEL PC-TWA	5 mg/m <sup>3</sup>
Regulatory reference	GBZ 2.1-2019

#### Biological limit values

No additional information available

#### Monitoring methods

No additional information available



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Flash point	> 101 ° C (DIN EN ISO 1523)
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	0.1 hPa
Relative vapour density at 20 ° C	No data available
Density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	20 mm <sup>2</sup> /s (ISO 2431)
Lower explosive limit (LEL)	No data available
Upper explosive limit (UEL)	No data available
Radioactive	No

### SECTION 10 Stability and reactivity

Reactivity	No additional information available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Direct sunlight. Extremely high or low temperatures
Incompatible materials	Strong acids Strong bases
Hazardous decomposition products	fume Carbon monoxide Carbon dioxide Under normal conditions of storage and use, hazardous decomposition products should not be produced
Other properties	No additional information available

### SECTION 11 Toxicological information

#### Acute toxicity

Acute toxicity (oral)	No data available
Acute toxicity (dermal)	No data available
Acute toxicity (inhalation)	No data available

#### 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol

LD50 oral rat	> 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	≥ 5000 mg/kg bodyweight (Rabbit; Experimental value)

#### 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester

LD50 oral rat	10066 mg/kg
LD50 dermal rat	> 3000 mg/kg
ATE CN (oral)	10066 mg/kg bodyweight

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1,1'-(p-tolylimino)dipropan-2-ol	
LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CN (oral)	25 mg/kg bodyweight

dicyclohexyl phthalate	
LD50 oral rat	41400 mg/kg (Rat)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
ATE CN (oral)	41400 mg/kg bodyweight

### Skin corrosion/irritation

Skin corrosion/irritation No data available

### Serious eye damage/eye irritation

Serious eye damage/irritation No data available

### Respiratory or skin sensitisation

Respiratory or skin sensitisation May cause an allergic skin reaction.

### Germ cell mutagenicity

Germ cell mutagenicity No data available

### Carcinogenicity

Carcinogenicity No data available

dibenzoyl peroxide	
IARC group	3 - Not classifiable

### Reproductive toxicity

Reproductive toxicity May damage the unborn child.

### STOT - single exposure

STOT-single exposure No data available

### STOT - repeated exposure

STOT-repeated exposure No data available

### Aspiration hazard

Aspiration hazard : No data available

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Viscosity, kinematic	20 mm <sup>2</sup> /s (ISO 2431)

## SECTION 12 Ecological information

### Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) Toxic to aquatic life.



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Hazardous to the aquatic environment,  
long-term (chronic)

Toxic to aquatic life with long lasting effects.

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	
LC50 - Fish [1]	493 mg/l (48 h; <i>Leuciscus idus</i> ; GLP)
EC50 - Crustacea [1]	> 143 mg/l (48 h; <i>Daphnia magna</i> ; GLP)
ErC50 algae	97.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	≤ 100
BCF - Fish [2]	3.2 Quantitative structure-activity relationship (QSAR)

1,1'-(p-tolylimino)dipropan-2-ol	
LC50 - Fish [1]	≈ 17 mg/l
EC50 - Crustacea [1]	28.8 mg/l
Partition coefficient n-octanol/water (Log Kow)	2.1

dibenzoyl peroxide	
LC50 - Fish [2]	0.0602 mg/l (96h; <i>Oncorhynchus mykiss</i> ; ECHA)
EC50 - Crustacea [1]	0.11 mg/l (OECD 202: <i>Daphnia sp.</i> Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, GLP)
ErC50 algae	0.0711 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	0.001 mg/l

dicyclohexyl phthalate	
LC50 - Fish [1]	> 10000 mg/l (96 h; <i>Brachydanio rerio</i> ; Static system)
NOEC chronic crustacea	0.181 mg/l
BCF - Fish [1]	640 (Pisces)

### Persistence and degradability

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	
Not rapidly degradable	Yes
Persistence and degradability	Readily biodegradable in water

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	
Not rapidly degradable	Yes
Biodegradation	84 %

dibenzoyl peroxide	
Persistence and degradability	Readily biodegradable in water Not established May cause long-term adverse effects in the environment

dicyclohexyl phthalate	
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Persistence and degradability	Readily biodegradable in water Forming sediments in water
ThOD	2.376 g O <sub>2</sub> /g substance

### Bioaccumulative potential

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500)
BCF - Fish [1]	See section 12.1 on ecotoxicology
BCF - Fish [2]	See section 12.1 on ecotoxicology
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	
Partition coefficient n-octanol/water (Log Pow)	3.1

1,1'-(p-tolylimino)dipropan-2-ol	
Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology

dibenzoyl peroxide	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Pow)	3.71
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)

dicyclohexyl phthalate	
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5)
BCF - Fish [1]	See section 12.1 on ecotoxicology
Partition coefficient n-octanol/water (Log Pow)	3 - 6.2

### Mobility in soil

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	
Ecology - soil	Low bioaccumulation potential (BCF < 500)
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	
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Partition coefficient n-octanol/water (Log Pow)	3.1
<b>1,1'-(p-tolylimino)dipropan-2-ol</b>	
Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology
<b>dibenzoyl peroxide</b>	
Ecology - soil	Low bioaccumulation potential (Log Kow < 4)
Surface tension	No data available (test not performed)
Partition coefficient n-octanol/water (Log Pow)	3.71
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>dicyclohexyl phthalate</b>	
Ecology - soil	High potential for bioaccumulation (Log Kow > 5)
Partition coefficient n-octanol/water (Log Pow)	3 - 6.2

### Other adverse effects

Classification procedure (Ozone) No data available

### Results of PBT and vPvB assessment

PBT This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

vPvB This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 13 Disposal considerations

Waste treatment methods	No additional information available
Contaminated container and packaging	No additional information available
Additional information	No additional information available
Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations
Ecology - waste materials	Avoid release to the environment.
Regional legislation (waste)	Disposal must be done according to official regulations

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

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ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
UN 3077	UN 3077	UN 3077	UN 3077
<b>14.2. UN proper shipping name</b>			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
Transport document description			
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)	M7
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5kg
Packing instructions (ADR)	P002, IBC08, LP02, R001
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	3
Orange plates	

Tunnel restriction code (ADR) -

#### Transport by sea

Special provisions (IMDG)	274, 335, 966, 967, 969
Limited quantities (IMDG)	5 kg
Packing instructions (IMDG)	LP02, P002

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EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A
Stowage and handling (IMDG)	SW23

### Air transport

PCA packing instructions (IATA)	956
PCA max net quantity (IATA)	400kg
CAO packing instructions (IATA)	956
Special provisions (IATA)	A97, A158, A179, A197, A215

### Rail transport

Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5kg
Packing instructions (RID)	P002, IBC08, LP02, R001

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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### SECTION 15 Regulatory information

New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)

Inventory of Existing Chemical Substances in : Listed

China (IECSC)

Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)

Catalogue of Hazardous Chemicals (2015) : Listed

Identification of major hazard installations : Not listed

for dangerous chemicals (GB 18218)

Catalogue of Severely Restricted Toxic : Not listed

Chemicals

Catalogue of Explosive Precursor Dangerous : Not listed

Chemicals

Catalogue of Hazardous Chemicals Prohibited : Not listed

from Inland Waterway Transport

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Catalogue for Classification of Hazardous : Listed

Factors of Occupational Diseases

List of Highly Toxic Substances : Not listed

Regulations on Administration of Chemicals Subjected to Supervision and Control

Catalogue of Controlled Chemicals : Not listed

Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)

Catalogue of Precursor Chemicals : Not listed

Regulations on Administration of Ozone Depleting Substances (Decree 573 of the State Council)

List of Ozone-Depleting Substances under : Not listed

Control in China

Other domestic regulatory lists

Dangerous Goods List (GB 12268-2012) : Listed

List of Export Control of Chemical Agents and : Not listed

Related Equipment and Technologies

List of Goods Prohibited from Export (No. 3) : Not listed

or Import (No.6)

Inventory of Hazardous Chemicals under Key : Listed

Supervision

### SECTION 16 Other information

#### Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE Acute Toxicity Estimate

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BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

**Other information**

None

**Indication of changes**

Section	Changed item	Change	Comments
1.	Emergency number.	Modified.	
14.	Transportation information.	Added.	
3.	Composition/information on ingredients.	Modified.	

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*