

Safety information for 2-Component-products

Date of issue: 05/07/2018

Revision date: 05/07/2018

Supersedes: 07/02/2018

Version: 1.1

SECTION 1: Kit identification

1.1 Product identifier	
Product name	HIT-RE 10 580/1
Product code	BU Anchor
1.2 Details of the supplier of the Safety information for 2-Component-products	

Yongping Road, South Development Zone 524022 Zhanjiang, Guangdong Province - PRC

Supplier
Hilti (Thailand) Ltd.
No. 1858/107-108, 24th Floor, Interlink Tower,
Bangna-Trad Road, Km. 4.5
10260 Bangkok - Thailand
T +66 2 714 5300 - F +66 2 714 5399

Department issuing data specification sheet Hilti Entwicklungsgesellschaft mbH Hiltistraße 6 86916 Kaufering - Germany T +49 8191 906310 - F +49 8191 90176310 anchor.hse@hilti.com

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

A SDS for each of these components is included. Please do not separate any component SDS from this cover page

Manufacturer Hilti (China) Ltd.

T +86 759 3379241

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

SECTION 3: Kit contents

Classification of the Product

Classification according to MOI no	otification B.E. 2555 (2012)
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TH - en

Skin corrosion/irritation, Category 1	H314
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 1B	H360F
Hazardous to the aquatic environment — Acute Hazard, Category 2	H401
Hazardous to the aquatic environment — Chronic Hazard, Category	H411



Safety information for 2-Component-products

2

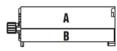
Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)		
Hazard pictograms (GHS-TH)	GHS05 GHS07 GHS08 GHS09	
Signal word (GHS-TH)	Danger	
Hazardous ingredients	Epoxy resin, Amines	
Hazard statements (GHS-TH)	H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H360 - May damage fertility H411 - Toxic to aquatic life with long lasting effects.	
Precautionary statements (GHS-TH)	 P280 - Wear eye protection, protective clothing, protective gloves. P262 - Do not get in eyes, on skin, or on clothing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P302+P352 - IF ON SKIN: Wash with plenty of water. 	

Additional information

Component A: Epoxy resin, Reactive diluent, inorganic filler

Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	Classification according to the United Nations GHS (Rev. 4, 2011)
HIT-RE 10, A		1	pcs	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 10, B		1	pcs	Acute Tox. 5 (Oral), H303 Skin Corr. 1A, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412



Safety information for 2-Component-products

SECTION 4: General advice

General advice

For professional users only

SECTION 5: Safe handling advice

General measures	Spilled material may present a slipping hazard
Environmental precautions	Prevent entry to sewers and public waters
	Notify authorities if liquid enters sewers or public waters
	Avoid release to the environment.
	Full or only partially emptied cartridges must be disposed of as special waste in accordance
	with official regulations.
	After curing, the product can be disposed of with household waste.
Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Technical measures	Comply with applicable regulations
Precautions for safe handling	Wear personal protective equipment
	Avoid contact with skin and eyes
	Wash hands and other exposed areas with mild soap and water before eating, drinking or
	smoking and when leaving work
	Avoid contact during pregnancy/while nursing
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation
	Mechanically recover the product
	On land, sweep or shovel into suitable containers
	Store away from other materials.
For containment	Collect spillage.
Incompatible materials	Sources of ignition
	Direct sunlight
Incompatible products	Strong bases
	Strong acids

SECTION 6: First aid measures

First-aid measures after eye contact	Get immediate medical advice/attention.
	Immediately rinse with water for a prolonged period while holding the eyelids wide open
	Remove contact lenses, if present and easy to do. Continue rinsing.
	Consult an eye specialist
First-aid measures after ingestion	Drink plenty of water
	Do not induce vomiting
	Rinse mouth.



Safety information for 2-Component-products

	Immediately call a POISON CENTER/doctor
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash with plenty of water/ Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting 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
Hazardous decomposition products in case of	Thermal decomposition generates :
fire	Carbon dioxide
	Carbon monoxide

SECTION 8: Other information

No data available



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012) Date of issue: 05/07/2018 Revision date: 05/07/2018 Supersedes: 07/02/2018 Version: 1.1

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

1.1. Product identifier	
Product form	Mixture
Product name	HIT-RE 10, B
Product code	BU Anchor
1.2. Relevant identified uses of the substance or mixture and uses advised against	

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier	Manufacturer
Hilti (Thailand) Ltd.	Hilti (China) Ltd.
No. 1858/107-108, 24th Floor, Interlink Tower,	Yongping Road, South Development Zone
Bangna-Trad Road, Km. 4.5	524022 Zhanjiang, Guangdong Province - PRC
10260 Bangkok - Thailand	T +86 759 3379241
T +66 2 714 5300 - F +66 2 714 5399	
Department issuing data specification sheet	
Hilti Entwicklungsgesellschaft mbH	
Hiltistraße 6	
86916 Kaufering - Germany	
T +49 8191 906310 - F +49 8191 90176310	
anchor.hse@hilti.com	

1.4. Emergency telephone number	
Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service
	+41 44 251 51 51 (international)
	+66 2 714 5300

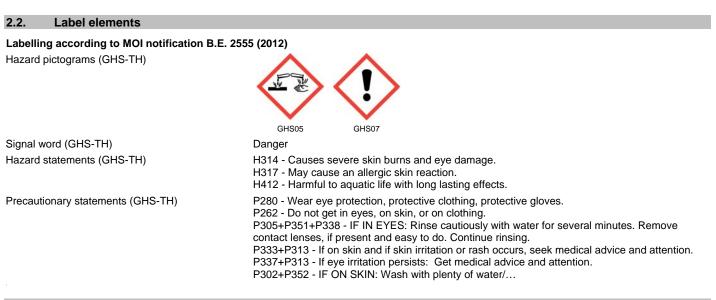
SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical	
Classification according to MOI notification B.E. 2555 (2012)	
Acute toxicity (oral), Category 5	H303
Skin corrosion/irritation, Category 1	H314
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Acute Hazard, Category 3	H402
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)



2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to MOI notification B.E. 2555 (2012)
Quartz (SiO2)	(CAS-No.) 14808-60-7	60 - 80	Not classified
m-Xylylenediamine	(CAS-No.) 1477-55-0	10 - 25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3- benzenediol and ethenylbenzene	(CAS-No.) 710292-85-6	10 - 25	Skin Sens. 1B, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	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.



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

First-aid measures after skin contact	Wash with plenty of water/ Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures after eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
First-aid measures after ingestion	Drink plenty of water. Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed	
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

Treat symptomatically.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment

SECTION 5: Firefighting measures	5			
5.1. Extinguishing media				
Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.			
Unsuitable extinguishing media	Do not use a heavy water stream.			
5.2. Special hazards arising from the substance or mixture				
General measures	Spilled material may present a slipping hazard.			
5.3. Advice for firefighters				
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

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Spilled material may present a slipping hazard.



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

6.1.1.For non-emergency personnel	
Emergency procedures	Evacuate unnecessary personnel.
6.1.2.For emergency responders	
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. After curing, the product can be disposed of with household waste.

6.3. Methods and material for containment and cleaning up			
For containment	Collect spillage.		
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation.		
	Mechanically recover the product. On land, sweep or shovel into suitable containers. Store		
away from other materials.			
Other information	Dispose of materials or solid residues at an authorized site.		

SECTION 7: Handling and storage

7.1. Precautions for safe handling	
Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving
	work. Avoid contact during pregnancy/while nursing.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash
	contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Comply with applicable regulations.
Storage conditions	Protect from sunlight. Store in a well-ventilated place.
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.



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information

The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

No additional information available

8.4. Personal protective equipment

Hand protection

Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0,4		EN 374
Eye protection Wear security glasses which protect from splashes					

Туре	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection



Wear suitable protective clothing

Environmental exposure controls

Consumer exposure controls

Avoid release to the environment.

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state Solid Appearance Thixotropic paste.

05/07/2018



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Colour	Black.
Odour	Amine-like.
Odour threshold	No data available
рН	11.5
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.75 g/cm³
Solubility	insoluble in water.
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity	1
Chemical stability	Stable under normal conditions
Conditions to avoid	Direct sunlight, Extremely high or low temperatures
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be
	produced,Thermal decomposition generates :fume,Carbon monoxide,Carbon dioxide,Corrosive
	vapours



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Incompatible materials	Strong acids,Strong bases
Possibility of hazardous reactions	No additional information available
Reactivity	Corrosive vapours

SECTION 11: Toxicological information

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)		
LD50 oral rat	> 2000 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
m-Xylylenediamine (1477-55-0)		
LD50 oral rat	1090 mg/kg	
LD50 oral	660 mg/kg	
LD50 dermal rat	> 3100 mg/kg	
LD50 dermal	2000 mg/kg	
LC50 inhalation rat (Dust/Mist - mg/l/4h)	1.34 mg/l/4h	
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
	pH: 11.5	
Serious eye damage/irritation	Serious eye damage, category 1, implicit	
Respiratory or skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Not classified	
Carcinogenicity	Not classified	
Reproductive toxicity	Not classified	
STOT-single exposure	Not classified	
STOT-repeated exposure	Not classified	

Not classified

Potential adverse human health effects and

Based on available data, the classification criteria are not met.

symptoms

Aspiration hazard

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Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 12: Ecological information		
12.1. Toxicity		
Ecology - water	Harmful to aquatic life with long lasting effects.	
Acute aquatic toxicity	Not classified	
Chronic aquatic toxicity	Not classified	
Other information	Avoid release to the environment.	
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)		
LC50 fish 1	>= 50 mg/l	

LC50 fish 1	>= 50 mg/l
LC50 other aquatic organisms 1	>= 31.8 mg/l
EC50 Daphnia 1	2.4 mg/l
NOEC chronic algae	6.25 mg/l
m-Xylylenediamine (1477-55-0)	
LC50 fish 1	75 mg/l
LC50 other aquatic organisms 1	20.3 ppb
EC50 Daphnia 1	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l

12.2. Persistence and degradability

HIT-RE 10, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

HIT-RE 10, B		
Bioaccumulative potential Not established.		
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)		
Bioconcentration factor (BCF REACH)	>= 12.9	
Log Pow	5.14	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects Not classified Ozone No known effects from this product.

GWPmix comment



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Regional legislation (waste)	Disposal must be done according to official regulations.
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.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	ΙΑΤΑ	RID
14.1. UN number			
3259	3259	3259	3259
14.2. UN proper shipping nar	me		
AMINES, SOLID, CORROSIVE,	AMINES, SOLID, CORROSIVE,	Amines, solid, corrosive, n.o.s. (m-	AMINES, SOLID, CORROSIVE,
N.O.S. (m-Xylylenediamine)	N.O.S. (m-Xylylenediamine)	Xylylenediamine)	N.O.S. (m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID,	UN 3259 AMINES, SOLID,	UN 3259 Amines, solid, corrosive,	UN 3259 AMINES, SOLID,
CORROSIVE, N.O.S. (m-	CORROSIVE, N.O.S. (m-	n.o.s. (m-Xylylenediamine), 8, II	CORROSIVE, N.O.S. (m-
Xylylenediamine), 8, II, (E)	Xylylenediamine), 8, II		Xylylenediamine), 8, II
14.3. Transport hazard class	(es)		
8	8	8	8
8	8	8	8
14.4. Packing group			
		11	11
14.5. Environmental hazards			
Dangerous for the environment :	Dangerous for the environment :	Dangerous for the environment :	Dangerous for the environment :



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

ADR	IMDG	ΙΑΤΑ	RID
No	No Marine pollutant : No	No	No
No supplementary information available			

14.6. Special precautions for user

- Overland transport	
Classification code (ADR)	C8
Special provisions (ADR)	274
Limited quantities (ADR)	1kg
Packing instructions (ADR)	P002, IBC08
Mixed packing provisions (ADR)	MP10
Orange plates	80 3259
Tunnel restriction code (ADR)	E
EAC code	2X
- Transport by sea	
Special provisions (IMDG)	274
Limited quantities (IMDG)	1 kg
Packing instructions (IMDG)	P002
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-B
Stowage category (IMDG)	A
Stowage and segregation (IMDG)	Separated from' acids.
MFAG-No	154
- Air transport	
PCA packing instructions (IATA)	859
PCA max net quantity (IATA)	15kg
CAO packing instructions (IATA)	863
Special provisions (IATA)	A3
- Rail transport	
Special provisions (RID)	274
Limited quantities (RID)	1kg



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Packing instructions (RID)	P002, IBC08
Carriage prohibited (RID)	No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No additional information available

SECTION 16: Other information

Version	1.1	
Date of issue	7/5/2018	
Revision date	05/07/2018	
Supersedes	07/02/20180	
Indication of changes:		
2.1	Classification (GHS-	Modified
	TH)	
2.2	Hazard statements	Modified
	(GHS-TH)	
3	Composition/informati	Modified
	on on ingredients	

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H302	Harmful if swallowed.
H303	May be harmful if swallowed



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS_TH_Hilti

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



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012) Date of issue: 05/07/2018 Revision date: 05/07/2018 Supersedes: 07/02/2018 Version: 1.1

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

1.1. Product identifier		
Product form	Mixture	
Product name	HIT-RE 10, A	
Product code	BU Anchor	
1.2. Relevant identified uses of the substance or mixture and uses advised against		

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier	Manufacturer	
Hilti (Thailand) Ltd.	Hilti (China) Ltd.	
No. 1858/107-108, 24th Floor, Interlink Tower,	Yongping Road, South Development Zone	
Bangna-Trad Road, Km. 4.5	524022 Zhanjiang, Guangdong Province - PRC	
10260 Bangkok - Thailand	T +86 759 3379241	
T +66 2 714 5300 - F +66 2 714 5399		
Department issuing data specification sheet		
Hilti Entwicklungsgesellschaft mbH		
Hiltistraße 6		
86916 Kaufering - Germany		
T +49 8191 906310 - F +49 8191 90176310		
anchor.hse@hilti.com		

1.4. Emergency telephone number	
Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service
	+41 44 251 51 51 (international)
	+66 2 714 5300

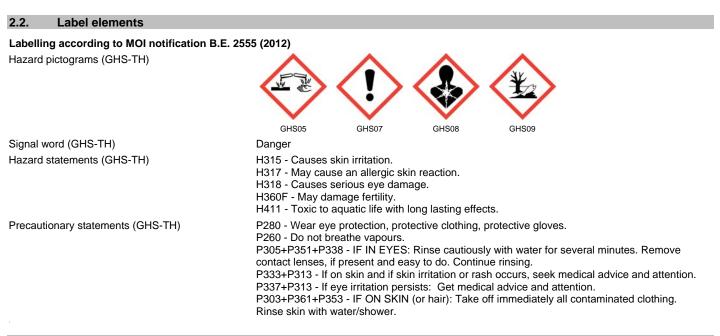
SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical	
Classification according to MOI notification B.E. 2555 (2012	2)
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 1B	H360F
Hazardous to the aquatic environment — Acute Hazard, Catego	ory 2 H401
Hazardous to the aquatic environment — Chronic Hazard, Cate 2	gory H411



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)



2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Name	Product identifier	%	Classification according to MOI notification B.E. 2555 (2012)
Quartz (SiO2)	(CAS-No.) 14808-60-7	25 - 40	Not classified
2,2'-[(1-methylethylidene)bis(4,1- phenyleneoxymethylene)]bisoxirane	(CAS-No.) 1675-54-3	25 - 40	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol	(CAS-No.) 9003-36-5	10 - 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Benzyl alcohol	(CAS-No.) 100-51-6	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:gas), H332 Eye Irrit. 2A, H319
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2- (chloromethyl)oxirane	(CAS-No.) 30499-70-8	2.5 - 5	Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 2, H411



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	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. Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate 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. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed		
Symptoms/effects after inhalation	May cause an allergic skin reaction.	
Symptoms/effects after skin contact	Causes skin irritation.	
Symptoms/effects after eye contact	Causes serious eye irritation.	

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media	Water spray. Carbon dioxide. Dry powder. Foam. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.
5.2. Special hazards arising from the substat	nce or mixture
General measures	Spilled material may present a slipping hazard.
5.3. Advice for firefighters	
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.



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipment and emergency procedures			
General measures	Spilled material may present a slipping hazard.		
6.1.1.For non-emergency personnel			
Emergency procedures	Evacuate unnecessary personnel.		
6.1.2.For emergency responders			
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.		
Emergency procedures	Ventilate area.		

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. After curing, the product can be disposed of with household waste.

6.3. Methods and material for containment and cleaning up		
For containment	Collect spillage.	
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation.	
	Mechanically recover the product. On land, sweep or shovel into suitable containers. Store	
	away from other materials.	
Other information	Dispose of materials or solid residues at an authorized site.	

7.1. Precautions for safe handling	
Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and othe
	exposed areas with mild soap and water before eating, drinking or smoking and when leaving
	work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the
	product. Contaminated work clothing should not be allowed out of the workplace. Wash
	contaminated clothing before reuse.

Storage conditions	Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Heat and ignition sources

Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information

The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

No additional information available

8.4. Personal protective equipment

Hand protection

Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0,4		EN 374

Eye protection

Wear security glasses	which	protect from	splashes
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Туре	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection



Wear suitable protective clothing

Environmental exposure controls

Consumer exposure controls

Avoid release to the environment.

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Appearance	Thixotropic paste.
Colour	Light grey.
Odour	Sweet.
Odour threshold	No data available
рH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.51 g/cm ³
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity		
Chemical stability	Stable under normal conditions	
Conditions to avoid	Direct sunlight, Extremely high or low temperatures	
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced, Thermal decomposition generates :fume, Carbon monoxide, Carbon dioxide	



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According to the MOI Notification B.E. 2555 (2012)

Incompatible materials Strong acids,Strong bases

Possibility of hazardous reactions

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified	
Acute toxicity (dermal)	Not classified	
Acute toxicity (inhalation)	Not classified	
Benzyl alcohol (100-51-6)		
LD50 oral rat	1620 mg/kg	
LC50 inhalation rat (mg/l)	> 4178 mg/m³	
Formaldehyde, oligomeric reaction products with	th 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)	
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)	
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxy	methylene)]bisoxirane (1675-54-3)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental	
	value)	
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)	
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/irritation	Causes serious eye damage.	
Respiratory or skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Not classified	
Carcinogenicity	Not classified	
Reproductive toxicity	May damage fertility.	
STOT-single exposure	Not classified	
STOT-repeated exposure	Not classified	
Aspiration hazard	Not classified	
Potential adverse human health effects and	Based on available data, the classification criteria are not met.	

symptoms



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 12: Ecological information

12.1. Toxicity		
Ecology - water	Toxic to aquatic life with long lasting effects.	
Acute aquatic toxicity	Not classified	
Chronic aquatic toxicity	Not classified	
Other information	Avoid release to the environment.	
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)		
LOED fish 1	1.2 mg// (06 b: Opeorthyrophyrophyrophyrophyrophyrophyrophyrop	

LC50 fish 1	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)	
EC50 Daphnia 1	1.7 mg/l	
LC50 fish 2	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)	
ErC50 (algae)	> 11 mg/l (EPA 660/3 - 75/009, 72 h, Scenedesmus sp., Static system, Fresh water,	
	Experimental value)	
Threshold limit algae 1	> 11 mg/l (72 h; Scenedesmus sp.)	
Threshold limit algae 2	4.2 mg/l (72 h; Scenedesmus sp.)	

12.2. Persistence and degradability

HIT-RE 10, A	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

HIT-RE 10, A		
Bioaccumulative potential Not established.		
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)		
BCF other aquatic organisms 1	31 (Estimated value, Fresh weight)	
Log Pow	>= 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)	
Bioaccumulative potential Low bioaccumulation potential (BCF < 500).		

12.4. Mobility in soil

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)		
Surface tension	58.7 - 58.9 mN/m (20 °C)	
Log Koc	2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR)	
Ecology - soil	Low potential for adsorption in soil.	

12.5. Other adverse effects		
Ozone	Not classified	
GWPmix comment	No known effects from this product.	
Other adverse effects	No additional information available	



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Regional legislation (waste)	Disposal must be done according to official regulations.	
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.	

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR		IMDG	IATA	RID
14.1.	UN number			
Not appl	licable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not appl	licable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not appl	licable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable Not applicable Not applicable Not applicable				
14.5. Environmental hazards				
Dangero	ous for the environment :	Dangerous for the environment :	Dangerous for the environment :	Dangerous for the environment :
Yes		Yes	Yes	Yes
		Marine pollutant : Yes		
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)				
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

Special provisions (ADR)

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Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No additional information available

SECTION 16: Other information

Version	1.1
Date of issue	7/5/2018
Revision date	05/07/2018
Supersedes	07/02/20180
Indication of changes:	
3	Composition/informati Modified
	on on ingredients

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1



Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
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.
H360F	May damage fertility.
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects.

SDS_TH_Hilti

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