

HIT-RE 100

Safety information for 2-Component-products

Issue date: 30/03/2023

Revision date: 30/03/2023

Supersedes: 11/05/2020

Version: 4.1

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-RE 100



Product code

BU Anchor

1.2 Details of the supplier of the Safety information for 2-Component-products

Hilti Taiwan Co., Ltd.
24/F, No. 16, Xinzhan Road, Banqiao Dist.
220 New Taipei City - Taiwan
T +886 2 6630 0345;
0800 221 036 Toll Free - F +886 2 2950 6132
twcs@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

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 the United Nations GHS (Rev. 4, 2011)

Health hazards

Acute toxicity (Oral), Category 4
Skin corrosion, Category 1B
Serious eye damage/eye irritation, Category 1
Skin sensitization, Category 1
Germ cells mutagenicity, Category 2
Toxic to reproduction, Category 1B

Environmental hazards

Hazardous to the aquatic environment - Acute Hazard, Category 2
Hazardous to the aquatic environment - Chronic Hazard, Category 2

Other hazards not mentioned above are Not applicable or No data is available.

Label elements

HIT-RE 100

Safety information for 2-Component-products

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS TW)



Signal word (GHS TW)

Danger

Hazardous ingredients

Epoxy resin, Amines

Hazard statements (GHS TW)

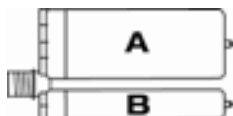
H314 - Causes severe skin burns and eye damage.
 H317 - May cause an allergic skin reaction.
 H341 - Suspected of causing genetic defects.
 H360F - May damage fertility.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS TW)

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.
 P302+P352 - IF ON SKIN: Wash with plenty of water.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-component-foilpack, contains:
 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 100, A		1	pcs (pieces)	Skin Corr. 1C, H314 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 100, B		1	pcs (pieces)	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

SECTION 4: General advice

General advice

For professional users only

SECTION 5: Safe handling advice

HIT-RE 100

Safety information for 2-Component-products

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
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	Do not induce vomiting Rinse mouth 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 skin contact	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
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HIT-RE 100

Safety information for 2-Component-products

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 fire

Thermal decomposition generates :
Carbon dioxide
Carbon monoxide

SECTION 8: Other information

No data available

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Issue date: 2023/03/30 Revision date: 2023/03/30 Supersedes: 2020/05/11 Version: 2.1

1. Identification of the chemical and of the business entity

Chemical name	HIT-RE 100, B
Product code	BU Anchor
Other Names	-
Recommended use	Composite mortar component for fasteners in the construction industry
Restrictions on use	For professional use only
Names, addresses, and phone numbers of manufacturer, importer or supplier	Supplier Hilti Taiwan Co., Ltd. 220 Taiwan New Taipei City 24/F, No. 16, Xinzhan Road, Banqiao Dist. T +886 2 6630 0345; 0800 221 036 Toll Free - F +886 2 2950 6132 twcs@hilti.com Department issuing data specification sheet Hilti Entwicklungsgesellschaft mbH 86916 Deutschland Kaufering Hiltistraße 6 T +49 8191 906876 anchor.hse@hilti.com
Emergency number	Schweizerisches Toxikologisches Informationszentrum - 24h Service +41 44 251 51 51 (international) +886 2 2357 9090 0800 221 036 Toll Free

2. Hazard(s) identification

GHS classification (Taiwan)

Health hazards	Acute toxicity (Oral), Category 4 Skin corrosion, Category 1B Skin sensitization, Category 1
Environmental hazards	Hazardous to the aquatic environment - Acute Hazard, Category 3 Hazardous to the aquatic environment - Chronic Hazard, Category 3

Label content

Hazard pictograms (GHS TW)



GHS05, GHS07

Signal word (GHS TW)

Danger

Hazard statements (GHS TW)

(H314) Causes severe skin burns and eye damage
(H317) May cause an allergic skin reaction
(H412) Harmful to aquatic life with long lasting effects

Precautionary statements

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Prevention precautionary statements

(P280) Wear eye protection, protective clothing, protective gloves.
(P262) Do not get in eyes, on skin, or on clothing.

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Response Precautionary Statements	(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.
Storage precautionary statements	-
Disposal precautionary statements	-
Other hazards which do not result in classification	-

3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical properties Refer to Section 9

Name	CAS-No.	Concentration
m-Xylylenediamine (間二甲苯二胺)	1477-55-0	25 - 40
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (甲醛與1,3-苯二甲胺、1,3-間苯二酚和的調聚物)	710292-85-6	10 - 25
resorcinol (間-苯二酚)	108-46-3	0,1 - 1

4. First-aid measures

First aid measures for different exposure routes

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.
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	Do not induce vomiting - Rinse mouth - Immediately call a POISON CENTER/doctor.

Most Important Symptoms/Effects

Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

Protection for the first aid staff

Personal Protection in First Aid and Measures	Avoid all unnecessary exposure
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Notes to physician

Other medical advice or treatment	Treat symptomatically
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HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

5. Firefighting measures

Extinguishing media

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

Specific hazards arising from firefighting measures

Fire hazard	-
Explosion hazard	-
General measures	Spilled material may present a slipping hazard
Reactivity in case of fire	-
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

Specific firefighting methods

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
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Special protective equipment and precautions for fire-fighters

Protection during firefighting	Self-contained breathing apparatus - Do not enter fire area without proper protective equipment, including respiratory protection
Personal protection (Emergency response)	-

6. Accidental release measures

Personal precautions

General measures	Spilled material may present a slipping hazard
For non-emergency personnel	
Emergency procedures	Evacuate unnecessary personnel
For emergency responders	
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection
Emergency procedures	Ventilate area

Environmental precautions

Environmental precautions	Prevent entry to sewers and public waters Notify authorities if liquid enters sewers or public waters Avoid release to the environment
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Methods and material for containment and cleaning up

For containment	Collect spillage.
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HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

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. Handling and storage

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.

Storage

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

8. Exposure controls/personal protection

Appropriate engineering controls	Ensure good ventilation of the work station
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Control parameters

HIT-RE 100, B	
Taiwan - Occupational Exposure Limits	
Local name	間苯二酚 (雷瑣辛) # Resorcinol
OEL TWA	45 mg/m ³
OEL TWA [ppm]	10 ppm
Regulatory reference	勞工作業場所容許暴露標準 (2018.03.14 修正) # Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace (2018.03.14 Modified)
Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Personal protective equipment

General:

Personal protective equipment:

Safety glasses. Gloves. Avoid all unnecessary exposure. Protective clothing.

Respiratory protection:

-

Hand protection:

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.

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

Eye protection:

Eye protection

Wear security glasses which protect from splashes

Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection:

Skin and body protection

Long sleeved protective clothing

Personal protective equipment symbol(s):



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.

9. Physical and chemical properties

Appearance	Thixotropic paste
Physical state	Solid
Colour	Red-brown to black
Odour	Amine-like
Odour threshold [ppm]	No data available
pH	11.5
Evaporation rate	No data available
Melting 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)	Non flammable.
Vapour pressure	No data available

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Relative vapour density at 20° C	No data available
Density	1.41 g/cm ³ DIN EN ISO 1183-3
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	43 - 57 Pa • s HN-0333
Explosive limits (vol %)	No data available

10. Stability and reactivity

Reactivity	Corrosive vapours
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	Under normal conditions of storage and use, hazardous decomposition products should not be produced Thermal decomposition generates : fume Carbon monoxide Carbon dioxide Corrosive vapours

11. Toxicological information

Routes of exposure

No additional information available

Symptoms

Potential adverse human health effects and No additional information available

Acute toxicity

Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

HIT-RE 100, B	
ATE TW (oral)	1706.229 mg/kg bodyweight
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
resorcinol (108-46-3)	
LD50 oral	301 mg/kg
LD50 dermal	2830 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5.3 mg/l/4h
m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
LD50 dermal	> 3100 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.34 mg/l/4h

Skin corrosion/irritation

Skin corrosion/irritation Causes severe skin burns.
pH: 11.5

Serious eye damage/irritation

Serious eye damage/irritation Assumed to cause serious eye damage

Respiratory or skin sensitisation

Respiratory or skin sensitisation May cause an allergic skin reaction.

Chronic toxicity or long-term toxicity

Germ cell mutagenicity

Germ cell mutagenicity Not classified

Carcinogenicity

Carcinogenicity Not classified

Reproductive toxicity

Reproductive toxicity Not classified

STOT-single exposure

STOT-single exposure Not classified

resorcinol (108-46-3)

STOT-single exposure	Causes damage to organs (central nervous system, blood) (oral). May cause damage to organs (respiratory system) (oral).
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STOT-repeated exposure

STOT-repeated exposure Not classified

Aspiration hazard

Aspiration hazard Not classified

Viscosity, kinematic

No data available

12. Ecological information

Ecotoxicity

Ecology - water Harmful to aquatic life with long lasting effects.

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

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

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
LC50 - Fish [1]	≥ 50 mg/l
LC50 - Other aquatic organisms [1]	≥ 31.8 mg/l
EC50 - Crustacea [1]	2.4 mg/l
resorcinol (108-46-3)	
EC50 - Crustacea [1]	1.28 mg/l
m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
LC50 - Other aquatic organisms [1]	20.3 ppb
EC50 - Crustacea [1]	15 mg/l

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

Hazardous to the aquatic environment, long-term (chronic) Harmful to aquatic life with long lasting effects.

m-Xylylenediamine (1477-55-0)	
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l

Additional ecotoxicological information

m-Xylylenediamine (1477-55-0)	
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg

Persistence and degradability

HIT-RE 100, B	
Persistence and degradability	May cause long-term adverse effects in the environment

Bioaccumulative potential

HIT-RE 100, 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
Partition coefficient n-octanol/water (Log Pow)	5.14

Mobility in soil

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
Partition coefficient n-octanol/water (Log Pow)	5.14

Other adverse effects

Ozone Not classified
 Other information Avoid release to the environment.

13. Disposal considerations

Waste treatment methods	-
Ecology - waste materials	Avoid release to the environment.
Sewage disposal recommendations	-
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

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II
14.3. Transport hazard class(es)			
8	8	8	8
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: 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
Transport category (ADR)	2
Orange plates	

Tunnel restriction code (ADR) E

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

HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Stowage category (IMDG)	A
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
Packing instructions (RID)	P002, IBC08

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

15. Regulatory information

Applicable regulations

1. Occupational Safety and Health Act
2. Ordinance on Prevention of Organic Solvent Poisoning
3. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
4. Traffic Safety Rule
5. National regulations RS

16. Other information

Literature references

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Version	2.1
Issue date	2023/03/30
Revision date	2023/03/30
Supersedes	2020/05/11
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, 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



HIT-RE 100, B

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

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.

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Issue date: 2023/03/30 Revision date: 2023/03/30 Supersedes: 2020/05/11 Version: 4.1

1. Identification of the chemical and of the business entity

Chemical name	HIT-RE 100, A
Product code	BU Anchor
Other Names	-
Recommended use	Composite mortar component for fasteners in the construction industry
Restrictions on use	For professional use only
Names, addresses, and phone numbers of manufacturer, importer or supplier	Supplier Hilti Taiwan Co., Ltd. 220 Taiwan New Taipei City 24/F, No. 16, Xinzhan Road, Banqiao Dist. T +886 2 6630 0345; 0800 221 036 Toll Free - F +886 2 2950 6132 twcs@hilti.com Department issuing data specification sheet Hilti Entwicklungsgesellschaft mbH 86916 Deutschland Kaufering Hiltistraße 6 T +49 8191 906876 anchor.hse@hilti.com
Emergency number	Schweizerisches Toxikologisches Informationszentrum - 24h Service +41 44 251 51 51 (international) +886 2 2357 9090 0800 221 036 Toll Free

2. Hazard(s) identification

GHS classification (Taiwan)

Health hazards	Skin corrosion, Category 1C Skin sensitization, Category 1 Germ cells mutagenicity, Category 2 Toxic to reproduction, Category 1B
Environmental hazards	Hazardous to the aquatic environment - Acute Hazard, Category 2 Hazardous to the aquatic environment - Chronic Hazard, Category 2

Label content

Hazard pictograms (GHS TW)



GHS05, GHS07, GHS08, GHS09

Signal word (GHS TW)

Danger

Hazard statements (GHS TW)

(H314) Causes severe skin burns and eye damage
(H317) May cause an allergic skin reaction
(H341) Suspected of causing genetic defects
(H360) May damage fertility.
(H411) Toxic to aquatic life with long lasting effects

Precautionary statements

-

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Prevention precautionary statements	(P280) Wear eye protection, protective clothing, protective gloves. (P262) Do not get in eyes, on skin, or on clothing.
Response Precautionary Statements	(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.
Storage precautionary statements	-
Disposal precautionary statements	-
Other hazards which do not result in classification	-

3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical properties

Refer to Section 9

Name	CAS-No.	Concentration
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (2,2'-[(1-甲基亚乙基)双(4,1-亚苯氧基亚甲基)]双环氧乙烷)	1675-54-3	25 - 40
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (甲醛與環氧氯丙烷及苯酚的寡聚反應產物)	9003-36-5	10 - 25
Reaction products of hexane-1,6-diol with 2-(chloromethyl)	933999-84-9	10 - 25
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (三羥甲基丙烷三縮水甘油醚)	30499-70-8	5 - 10

4. First-aid measures

First aid measures for different exposure routes

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. - Allow affected person to breathe fresh air - 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 - Get medical advice/attention. - Do not induce vomiting - Obtain emergency medical attention

Most Important Symptoms/Effects

Symptoms/effects after skin contact	Causes skin irritation, May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye irritation.

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Protection for the first aid staff

Personal Protection in First Aid and Measures

Avoid all unnecessary exposure

Notes to physician

Other medical advice or treatment

Treat symptomatically

5. Firefighting measures

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 arising from firefighting measures

Fire hazard

-

Explosion hazard

-

General measures

Spilled material may present a slipping hazard

Reactivity in case of fire

-

Hazardous decomposition products in case of fire

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

Specific firefighting methods

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

Special protective equipment and precautions for fire-fighters

Protection during firefighting

Self-contained breathing apparatus - Do not enter fire area without proper protective equipment, including respiratory protection

Personal protection (Emergency response)

-

6. Accidental release measures

Personal precautions

General measures

Spilled material may present a slipping hazard

For non-emergency personnel

Emergency procedures

Evacuate unnecessary personnel

For emergency responders

Protective equipment

Use personal protective equipment as required.

Equip cleanup crew with proper protection

Emergency procedures

Ventilate area

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Environmental precautions

Environmental precautions	Prevent entry to sewers and public waters Notify authorities if liquid enters sewers or public waters Avoid release to the environment
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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. Handling and storage

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
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

Storage conditions	Protect from sunlight.
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

8. Exposure controls/personal protection

Appropriate engineering controls	Ensure good ventilation of the work station
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Control parameters

No additional information available

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.
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HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Personal protective equipment

General:

Personal protective equipment:

Safety glasses. Gloves. Avoid all unnecessary exposure. Protective clothing.

Respiratory protection:

-

Hand protection:

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.

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

Eye protection:

Eye protection

Wear security glasses which protect from splashes

Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection:

Skin and body protection

Long sleeved protective clothing

Personal protective equipment symbol(s):



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.

9. Physical and chemical properties

Appearance	Thixotropic paste
Physical state	Solid
Colour	Light grey
Odour	characteristic
Odour threshold [ppm]	No data available
pH	6.2
Evaporation rate	No data available
Melting 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)	Non flammable.
Vapour pressure	No data available

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Relative vapour density at 20° C	No data available
Density	1.46 g/ml DIN EN ISO 1183-3
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	36 - 53 Pa • s HN-0333
Explosive limits (vol %)	No data available
Explosive properties	Product is not explosive

10. Stability and reactivity

Reactivity	No data 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	Under normal conditions of storage and use, hazardous decomposition products should not be produced Thermal decomposition generates : fume Carbon monoxide Carbon dioxide

11. Toxicological information

Routes of exposure

No additional information available

Symptoms

Potential adverse human health effects and No additional information available

Acute toxicity

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

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)

LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity - Acute Toxic Class Method; Experimental value)
LD50 oral	11400 mg/kg
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)

LD50 oral rat	3010 mg/kg
LD50 dermal rat	> 2000 mg/kg

Formaldehyde, oligomeric reaction products with 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)

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

Skin corrosion/irritation

Skin corrosion/irritation Causes severe skin burns.
pH: 6.2

Serious eye damage/irritation

Serious eye damage/irritation Assumed to cause serious eye damage

Respiratory or skin sensitisation

Respiratory or skin sensitisation May cause an allergic skin reaction.

Chronic toxicity or long-term toxicity

Germ cell mutagenicity

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity

Carcinogenicity Not classified

Reproductive toxicity

Reproductive toxicity May damage fertility.

STOT-single exposure

STOT-single exposure Not classified

STOT-repeated exposure

STOT-repeated exposure Not classified

Aspiration hazard

Aspiration hazard Not classified

Viscosity, kinematic No data available

12. Ecological information

Ecotoxicity

Ecology - water Toxic to aquatic life with long lasting effects.

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

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

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LC50 - Fish [1]	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
LC50 - Fish [2]	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)

Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)

LC50 - Fish [1]	30 mg/l
LC50 - Other aquatic organisms [1]	23.1 mg/l
EC50 - Crustacea [1]	47 mg/l

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

Hazardous to the aquatic environment, long-term (chronic) Toxic to aquatic life with long lasting effects.

Additional ecotoxicological information

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)
Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)	
NOEC (acute)	18 mg/l

Persistence and degradability

HIT-RE 100, A	
Persistence and degradability	May cause long-term adverse effects in the environment

Bioaccumulative potential

HIT-RE 100, A	
Bioaccumulative potential	Not established

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 ° C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500)

Mobility in soil

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Surface tension	59 mN/m (20 ° C, 0.09 g/l)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 ° C)
Ecology - soil	No (test)data on mobility of the substance available.

Other adverse effects

Ozone	Not classified
Other information	Avoid release to the environment.

13. Disposal considerations

Waste treatment methods	-
Ecology - waste materials	Avoid release to the environment.
Sewage disposal recommendations	-
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

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 1759	UN 1759	UN 1759	UN 1759

HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

ADR	IMDG	IATA	RID
14.2. UN proper shipping name			
CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)	CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)	Corrosive solid, n.o.s. (trimethylolpropane triglycidylether)	CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)
Transport document description			
UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, MARINE POLLUTANT/ENVIRONMENTALL Y HAZARDOUS	UN 1759 Corrosive solid, n.o.s. (trimethylolpropane triglycidylether), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)			
8	8	8	8
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	C10
Special provisions (ADR)	274
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)

E

Transport by sea

Special provisions (IMDG)	223, 274
Packing instructions (IMDG)	P002, LP02
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-B
Stowage category (IMDG)	A

Air transport

PCA packing instructions (IATA)	860
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HIT-RE 100, A

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals"

PCA max net quantity (IATA)	25kg
CAO packing instructions (IATA)	864
Special provisions (IATA)	A3, A803

Rail transport

Special provisions (RID)	274
Packing instructions (RID)	P002, IBC08, LP02, R001

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

15. Regulatory information

Applicable regulations

1. Occupational Safety and Health Act
2. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
3. Traffic Safety Rule
4. National regulations RS

16. Other information

Literature references

Version 4.1

Issue date 2023/03/30

Revision date 2023/03/30

Supersedes 2020/05/11

Abbreviations and acronyms

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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, 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

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.