

# HIT-HY 200-R V3

## Safety information for 2-Component-products

Issue date: 30/01/2025

Revision date: 30/01/2025

Supersedes: 13/01/2021

Version: 2.0

### SECTION 1: Kit identification

#### 1.1 Product identifier

Product name

HIT-HY 200-R V3



Product code

BU Anchor

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

Hilti Far East Private Ltd.  
80 Pasir Panjang Road,  
#16-83/84 Mapletree Business City  
117372 Singapore - Singapur  
T +65 6777 7887 - F +65 6777 3057  
[sg-customerservice@hilti.com](mailto:sg-customerservice@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

##### GHS SG classification

Health hazards

Serious eye damage/eye irritation, Category 2

Skin sensitisation, Category 1

Environmental hazards

Hazardous to the aquatic environment – Acute Hazard, Category 1

Hazardous to the aquatic environment – Chronic Hazard, Category 1

#### Label elements

##### GHS SG labelling

Hazard pictograms (GHS SG)



GHS07



GHS09

Signal word (GHS SG)

Warning

Hazardous ingredients

methacrylates, dibenzoyl peroxide

Hazard statements (GHS SG)

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS SG)

P280 - Wear eye protection, protective clothing, protective gloves.

P262 - Do not get in eyes, on skin, or on clothing.

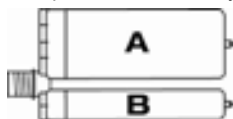
# HIT-HY 200-R V3

## Safety information for 2-Component-products

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: Urethane methacrylate resin, inorganic filler  
Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	GHS SG classification
HIT-HY 200-R V3, B		1	pcs (pieces)	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HIT-HY 200-R V3, A		1	pcs (pieces)	Skin Sens. 1, H317

### 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
Storage conditions	Keep cool. Protect from sunlight.
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 Provide good ventilation in process area to prevent formation of vapour
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 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	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

# HIT-HY 200-R V3

## Safety information for 2-Component-products

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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 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)
Symptoms/effects after eye contact	May cause severe irritation
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
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-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

Issue date: 30.01.2025

Revision date: 30.01.2025

Supersedes: 13.01.2021

Version: 2.0

### SECTION 1: Identification

#### 1.1. Product identifier

Name	HIT-HY 200-R V3, B
Product code	BU Anchor
Chemical name	Injection Mortar HIT-HY 200-R V3

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions	For professional use only
Restrictions on use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti Far East Private Ltd.  
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore  
Singapur 117372  
T +65 6777 7887 - F +65 6777 3057  
[sg-customerservice@hilti.com](mailto:sg-customerservice@hilti.com)

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6 Kaufering Deutschland 86916  
T +49 8191 906876  
[product.compliance-anchors@hilti.com](mailto:product.compliance-anchors@hilti.com)

#### 1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Health hazards	Serious eye damage/eye irritation, Category 2 Skin sensitisation, Category 1
Environmental hazards	Hazardous to the aquatic environment – Acute Hazard, Category 1 Hazardous to the aquatic environment – Chronic Hazard, Category 1

#### 2.2. GHS label elements, including precautionary statements

##### Hazard pictograms (GHS SG)



##### Signal word (GHS SG)

Warning

##### Hazard statements (GHS SG)

H317 : May cause an allergic skin reaction  
H319 : Causes serious eye irritation  
H410 : Very toxic to aquatic life with long lasting effects

##### Precautionary statements

##### Prevention

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

##### Response

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 soap and water.

# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the applicable regulations

## SECTION 4: First-aid measures

### 4.1. 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).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention.
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.
Ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms/effects, acute and delayed

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

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

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

### 5.1. Suitable 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. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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### 5.3. Special protective actions for fire fighters

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.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### 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.

### 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. 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. Provide good ventilation in process area to prevent formation of vapour.  
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

Storage conditions Keep cool. 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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters/Occupational exposure limits

HIT-HY 200-R V3, B	
Singapore - Occupational Exposure Limits	
Local name	Benzoyl peroxide
PEL (OEL TWA)	5 mg/m <sup>3</sup>
Regulatory reference	WSH (General Provision) Regulation 2014

### 8.2. Appropriate engineering control measures

Appropriate engineering controls Ensure good ventilation of the work station.

### 8.3. Personal protection – individual protection measures, such as personal protective equipment (PPE)

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. Change contaminated gloves after 30 min. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	0,12		EN ISO 374

Eye protection Wear security glasses which protect from splashes

# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

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

### Personal protective equipment symbol(s)



Environmental exposure controls

No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.

Consumer exposure controls

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.
Colour	white
Odour	characteristic
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Evaporation rate	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	Not self-igniting
Decomposition temperature	No data available
Flammability	Flammable solid.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.9 g/ml AW 4.3.23
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, kinematic	21052.632 mm²/s
Viscosity, dynamic	40 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available
Particle size	No data available
Particle size distribution	No data available
Particle shape	No data available
Particle aspect ratio	No data available
Particle specific surface area	No data available

### 9.2. Other information

SADT	65 °C
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Acute toxicity

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
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
Aspiration hazard	Not classified

HIT-HY 200-R V3, B	
Viscosity, kinematic	21052.632 mm <sup>2</sup> /s
Density	1.9 g/ml AW 4.3.23

Potential adverse human health effects and symptoms No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	Very toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

### 12.2. Persistence and degradability

HIT-HY 200-R V3, B	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

HIT-HY 200-R V3, B	
Bioaccumulative potential	Not established.



# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### 12.4. Mobility in soil

HIT-HY 200-R V3, B	
Mobility in soil	No additional information available

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

## SECTION 13: Disposal considerations

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.
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## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.			
<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)
<b>Transport document description</b>			
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	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

# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

ADR	IMDG	IATA	RID
<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
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.			
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	<div>90</div> <div>3077</div>

Tunnel restriction code (ADR)

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### Transport by sea

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

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

### 15.2. International regulations

No additional information available

# HIT-HY 200-R V3, B

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### 15.3 Chemical inventory status

No additional information available

## SECTION 16: Other information

Issue date	30/01/2025
Revision date	30/01/2025
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.

SDS\_SG\_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.

# HIT-HY 200-R V3, A

## Safety Data Sheet

According to SS 586 Part 3 (2022)  
Issue date: 30.01.2025

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Supersedes: 13.01.2021

Version: 2.0

### SECTION 1: Identification

#### 1.1. Product identifier

Name	HIT-HY 200-R V3, A
Product code	BU Anchor
Chemical name	Injection Mortar HIT-HY 200-R V3

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions	For professional use only
Restrictions on use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti Far East Private Ltd.  
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore  
Singapur 117372  
T +65 6777 7887 - F +65 6777 3057  
[sg-customerservice@hilti.com](mailto:sg-customerservice@hilti.com)

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6 Kaufering Deutschland 86916  
T +49 8191 906876  
[product.compliance-anchors@hilti.com](mailto:product.compliance-anchors@hilti.com)

#### 1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Health hazards	Skin sensitisation, Category 1
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#### 2.2. GHS label elements, including precautionary statements

##### Hazard pictograms (GHS SG)



##### Signal word (GHS SG)

Warning

##### Hazard statements (GHS SG)

H317 : May cause an allergic skin reaction

##### Precautionary statements

##### Prevention

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

##### Response

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 soap and water.

#### 2.3. Other hazards which do not result in classification

No additional information available

# HIT-HY 200-R V3, A

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	BDDMA	10 – 25	C12H18O4	CAS-No.: 2082-81-7 EC-No.: 218-218-1
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	1,2-propanediol, 2-methyl, monomethacrylate / 2-propenoic acid, 2-methyl-, 2-hydroxymethylethyl ester / hydroxypropyl methacrylate (HPMA)	5 – 10	C7H12O3	CAS-No.: 27813-02-1 EC-No.: 248-666-3 EC Index-No.: 607-125-00-5
1,1'-(p-tolylimino)dipropan-2-ol	DiPpT	0.1 – 1	C13H21NO2	CAS-No.: 38668-48-3 EC-No.: 254-075-1
2,2'-(m-tolylimino)diethanol	-	0.1 – 1	-	CAS-No.: 91-99-6 EC-No.: 202-114-8

### SECTION 4: First-aid measures

#### 4.1. 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).

Inhalation

Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

#### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact

May cause an allergic skin reaction.

Symptoms/effects after eye contact

May cause severe irritation.

#### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable 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. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

#### 5.3. Special protective actions for fire fighters

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.

# HIT-HY 200-R V3, A

## Safety Data Sheet

According to SS 586 Part 3 (2022)

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	Spilled material may present a slipping hazard.
<b>6.1.1. For non-emergency personnel</b>	
Emergency procedures	Evacuate unnecessary personnel.
<b>6.1.2. For emergency responders</b>	
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.

#### 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. 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. Provide good ventilation in process area to prevent formation of vapour.
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

Storage conditions	Keep cool. 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.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters/Occupational exposure limits

HIT-HY 200-R V3, A	
Singapore - Occupational Exposure Limits	
Local name	Aluminium oxide
PEL (OEL TWA)	10 mg/m <sup>3</sup>
Regulatory reference	WSH (General Provision) Regulation 2014

#### 8.2. Appropriate engineering control measures

Appropriate engineering controls	Ensure good ventilation of the work station.
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### 8.3. Personal protection – individual protection measures, such as personal protective equipment (PPE)

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. Change contaminated gloves after 30 min. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	0,12		EN ISO 374

Eye protection

Wear security glasses which protect from splashes

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

#### Personal protective equipment symbol(s)



Environmental exposure controls

Not applicable.

Consumer exposure controls

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.
Colour	Black
Odour	characteristic
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 109 °C DIN EN ISO 1523
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability	Flammable solid.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.8 g/ml AW 4.3.23
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, kinematic	27777.778 mm²/s
Viscosity, dynamic	50 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available
Particle size	No data available
Particle size distribution	No data available
Particle shape	No data available
Particle aspect ratio	No data available

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Particle specific surface area

No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Acute toxicity

Acute toxicity (oral) Not classified

Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Not classified

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
LD50 oral rat	10066 mg/kg
LD50 oral	10060 mg/kg
LD50 dermal rat	> 3000 mg/kg

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
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)

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg

2,2'-(m-tolylimino)diethanol (91-99-6)	
LD50 oral rat	300 – 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified



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STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Viscosity, kinematic	27777.778 mm <sup>2</sup> /s
Density	1.8 g/ml AW 4.3.23
Potential adverse human health effects and symptoms	No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified.
Hazardous to the aquatic environment, long-term (chronic)	Not classified.
Other information	Avoid release to the environment.

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
LC50 - Other aquatic organisms [1]	9.79 mg/l
ErC50 algae	9.79 mg/l
NOEC (acute)	7.51 mg/l
NOEC (chronic)	20 mg/l
NOEC chronic crustacea	5.09 mg/l
NOEC chronic algae	2.11 mg/l
Partition coefficient n-octanol/water (Log Pow)	3.1

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LC50 - Fish [1]	493 mg/l (48 h; Leuciscus idus; GLP)
EC50 - Crustacea [1]	> 143 mg/l (48 h; Daphnia magna; GLP)
ErC50 algae	97.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	≤ 100
BCF - Fish [2]	3.2 Quantitative structure-activity relationship (QSAR)
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)
Threshold limit - Algae [1]	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit - Algae [2]	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)

1,1'-(p-tolylimino)dipropen-2-ol (38668-48-3)	
LC50 - Fish [1]	≈ 17 mg/l
LC50 - Other aquatic organisms [1]	245 mg/l
EC50 - Crustacea [1]	28.8 mg/l
NOEC (acute)	57.8 mg/l

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<b>1,1'-(p-tolylimino)dipropen-2-ol (38668-48-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	2.1
<b>2,2'-(m-tolylimino)diethanol (91-99-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.9
<b>12.2. Persistence and degradability</b>	
<b>HIT-HY 200-R V3, A</b>	
Persistence and degradability	Not established.
<b>2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)</b>	
Biodegradation	84 %
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Not rapidly degradable	
Persistence and degradability	Readily biodegradable in water.
<b>12.3. Bioaccumulative potential</b>	
<b>HIT-HY 200-R V3, A</b>	
Bioaccumulative potential	Not established.
<b>2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.1
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
BCF - Fish [1]	≤ 100
BCF - Fish [2]	3.2 Quantitative structure-activity relationship (QSAR)
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)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
<b>1,1'-(p-tolylimino)dipropen-2-ol (38668-48-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	2.1
<b>2,2'-(m-tolylimino)diethanol (91-99-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.9
<b>12.4. Mobility in soil</b>	
<b>HIT-HY 200-R V3, A</b>	
Mobility in soil	No additional information available
<b>2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.1
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
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)
Ecology - soil	Highly mobile in soil.

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1,1'-(p-tolylimino)dipropen-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1
2,2'-(m-tolylimino)diethanol (91-99-6)	
Partition coefficient n-octanol/water (Log Pow)	1.9

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

## SECTION 13: Disposal considerations

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.
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## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Rail transport

Not regulated

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

Not applicable

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According to SS 586 Part 3 (2022)

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

#### 15.2. International regulations

No additional information available

#### 15.3 Chemical inventory status

No additional information available

### SECTION 16: Other information

Issue date	30/01/2025
Revision date	30/01/2025
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.

SDS\_SG\_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.