

HIT-HY 270

Safety information for 2-Component-products

Issue date: 05/02/2025 Revision date: 05/02/2025 Supersedes: 30/08/2024 Version: 3.1

SECTION 1: Kit identification

1.1 Product identifier

Trade name HIT-HY 270



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

SECTION 2: General information

Restrictions on use For professional use only
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

Signal word (GHS SG)

Hazardous ingredients Hazard statements (GHS SG) Warning

methacrylates, dibenzoyl peroxide, boric acid H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

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

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Safety information for 2-Component-products

Precautionary statements (GHS SG) 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.

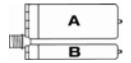
P337+P313 - If eye irritation persists: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-Component-foilpack, contains:

Component A. Urethane methacrylate resin, inorganic filler

Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	GHS SG classification
HIT-HY 270, B		1	pcs (pieces)	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HIT-HY 270, A		1	pcs (pieces)	Eye Irrit. 2, H319 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

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Safety information for 2-Component-products

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.

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

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According to SS 586 Part 3 (2022) Issue date: 05.02.2025 Revision date: 05.02.2025

Issue date: 05.02.2025 Revision date: 05.02.2025 Supersedes: 30.08.2024 Version: 2.4

SECTION 1: Identification

1.1. Product identifier

Name HIT-HY 270, B Product code BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional users 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

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Department issuing data specification sheet

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product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number

GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Health hazards 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)

Hazard statements (GHS SG)

H317: May cause an allergic skin reaction

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.

2.3. Other hazards which do not result in classification

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration (%)	Formula	Product identifier
dibenzoyl peroxide	5 – 10	C14H10O4	CAS-No.: 94-36-0
			EC-No.: 202-327-6
			EC Index-No.: 617-
			008-00-0

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.

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

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.

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.

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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

Hygiene measures

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.

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 $5-25\,^{\circ}\text{C}$

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 270, B		
Singapore - Occupational Exposure Limits		
Local name	Benzoyl peroxide	
PEL (OEL TWA)	5 mg/m³	
Regulatory reference WSH (General Provision) Regulation 2014		
dibenzoyl peroxide (94-36-0)		
Singapore - Occupational Exposure Limits		
Local name	Benzoyl peroxide	
PEL (OEL TWA)	5 mg/m³	
Regulatory reference	WSH Regulations 2014	

8.2. Appropriate engineering control measures

Appropriate engineering controls Ensure adequate ventilation.

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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. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

-	Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
[Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12		EN ISO 374

Eye protection Wear security glasses which protect from splashes

Туре	Field of application	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.

ColourwhiteOdourcharacteristicOdour thresholdNot determined

pH ≈ 6

Relative evaporation rate (butylacetate=1) No data available Evaporation rate No data available Melting point No data available Freezing point No data available No data available Boiling point Flash point No data available Auto-ignition temperature Not self-igniting No data available Decomposition temperature Flammability Flammable No data available Vapour pressure Relative vapour density at 20°C No data available Relative density No data available 1.7 g/cm3 DIN 51757 Density 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 52941.176 mm²/s Viscosity, dynamic 90 Pa·s HN-0333 Explosive properties Product is not explosive. Oxidising properties No data available No data available Explosive limits No data available Particle size Particle size distribution No data available No data available Particle shape

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Particle aspect ratio

No data available
Particle specific surface area

No data available

9.2. Other information

SADT 65 °C

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 classifiedAcute toxicity (dermal)Not classifiedAcute toxicity (inhalation)Not classifiedSkin corrosion/irritationNot classifiedpH: ≈ 6 Serious eye damage/irritationNot classified

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Carcinogenicity

Not classified

Reproductive toxicity

Not classified

STOT-single exposure

STOT-repeated exposure

Aspiration hazard

Not classified

Not classified

Not classified

HIT-HY 270, B	
Viscosity, kinematic	52941.176 mm²/s
Density	1.7 g/cm³ DIN 51757

Potential adverse human health effects and

symptoms

No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

(acute)

Hazardous to the aquatic environment, long-term

Very toxic to aquatic life with long lasting effects.

(chronic)

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Other information

Avoid release to the environment.

dibenzoyl peroxide (94-36-0)		
LC50 - Fish [2]	0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)	
EC50 - Crustacea [1]	0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)	
ErC50 algae	0.0711 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)	
NOEC (acute)	0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)	
NOEC chronic fish	0.001 mg/l	
Partition coefficient n-octanol/water (Log Pow)	3.71	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)	

12.2. Persistence and degradability

HIT-HY 270, B		
Persistence and degradability Not established.		
dibenzoyl peroxide (94-36-0)		
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.	

12.3. Bioaccumulative potential

HIT-HY 270, B			
Bioaccumulative potential	Not established.		
dibenzoyl peroxide (94-36-0)			
Partition coefficient n-octanol/water (Log Pow)	3.71		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)		
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).		

12.4. Mobility in soil

HIT-HY 270, B		
Mobility in soil No additional information available		
dibenzoyl peroxide (94-36-0)		
Surface tension	No data available (test not performed)	
Partition coefficient n-octanol/water (Log Pow)	3.71	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)	
Ecology - soil	Low potential for mobility in soil.	

12.5. Other adverse effects

Ozone Not classified

Other adverse effects No additional information available

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SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations

Dispose of contents/container in accordance with licensed collector's sorting instructions. 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.

Additional information

Clean up even minor leaks or spills if possible without unnecessary risk.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID n	umber		
UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shippin	g name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide
Transport document descr	iption		
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III
14.3. Transport hazard o	class(es)		
9	9	9	9
**************************************	<u>*************************************</u>		**************************************
14.4. Packing group			
III	III	III	III
14.5. Environmental haz	ards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
not restricted according ADR		A-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)

Packing instructions (ADR) P002, IBC08, LP02, R001

Mixed packing provisions (ADR) MP10

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Transport category (ADR)

Orange plates

90 3077

Tunnel restriction code (ADR)

Transport by sea

Special provisions (IMDG) 274, 335, 966, 967, 969

Limited quantities (IMDG) 5 kg

Packing instructions (IMDG) LP02, P002

EmS-No. (Fire)F-AEmS-No. (Spillage)S-FStowage category (IMDG)AStowage 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

Regulation		Component / Mixture
Environmental Protection and Management Act (Hazardous Substances)	Not applicable	
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations		
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	Maritime and Port Authority-Dangerous Goods	Organic peroxide type B, solid
Poisons Act	Not applicable	
Hazardous waste (Control of export, import and transit) Act		
Strategic goods (Control) Act		

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

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Issue date Revision date

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

None.

Other information

Indication of changes					
Section	Changed item Change Comments				
	Regulations Singapore	Modified	According to SS 586 Part 3 (2022)		

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.

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SECTION 1: Identification

1.1. Product identifier

HIT-HY 270, A Name Product code **BU** Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional users 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

Department issuing data specification sheet

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product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number

GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

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

2.2. GHS label elements, including precautionary statements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

Hazard statements (GHS SG)

H317: May cause an allergic skin reaction H319: Causes serious eye irritation

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

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

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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	Concentration (%)	Formula	Product identifier
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	10 – 25	C7H12O3	CAS-No.: 27813-02-1 EC-No.: 248-666-3 EC Index-No.: 607- 125-00-5
Tricyclodecane dimethanol dimethacrylate	2.5 - 5	C20H28O4	CAS-No.: 43048-08-4 EC-No.: 256-062-6
1,1,1-Trimethylolpropane trimethacrylate	2.5 - 5	C18H26O6	CAS-No.: 3290-92-4 EC-No.: 221-950-4
1,1'-(p-tolylimino)dipropan-2-ol	0.1 - 1	C13H21NO2	CAS-No.: 38668-48-3 EC-No.: 254-075-1
boric acid	0.1 - <0.3	BH3O3	CAS-No.: 10043-35-3 EC-No.: 233-139-2 EC Index-No.: 005- 007-00-2
4-tert-butylpyrocatechol	0.1 - 1	C10H14O2	CAS-No.: 98-29-3 EC-No.: 202-653-9

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

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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According to SS 586 Part 3 (2022)

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.

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.

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

No additional information available

8.2. Appropriate engineering control measures

Appropriate engineering controls Ensure adequate ventilation.

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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. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12		EN ISO 374

Eye protection Wear security glasses which protect from splashes

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

Skin and body protection

Wear suitable protective clothing

Personal protective equipment symbol(s)







Environmental exposure controls Consumer exposure controls

Particle size distribution

Particle shape

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. Colour light brown Odour characteristic Odour threshold Not determined 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 > 100 °C DIN EN ISO 1523

Auto-ignition temperature Not self-igniting Decomposition temperature No data available Flammability Flammable No data available Vapour pressure Relative vapour density at 20°C No data available Relative density No data available 1.66 g/cm3 DIN 51757 Density 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 48192.771 mm²/s Viscosity, dynamic 80 Pa·s HN-0333 Explosive properties Product is not explosive. Oxidising properties No data available No data available Explosive limits No data available Particle size

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No data available No data available



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Particle aspect ratio

No data available

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

SECTION 11. Toxicological informatio	SECTION 11: Toxicological information			
11.1. Acute toxicity				
Acute toxicity (oral)	Not classified.			
Acute toxicity (dermal)	Not classified.			
Acute toxicity (inhalation)	Not classified			
HIT-HY 270, A				
LD50 oral rat	> 2000 mg/kg			
LD50 dermal rat	> 2000 mg/kg			
LC50 Inhalation - Rat (Vapours)	> 20 mg/l/4h			
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)			
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)				
LD50 oral rat	> 5000 mg/kg			
LD50 dermal rat	> 3000 mg/kg			
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)				
LD50 oral rat	25 mg/kg			
LD50 dermal rat	> 2000 mg/kg			
boric acid (10043-35-3)				
LD50 oral rat	2660 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >2600 mg/kg bodyweight; Rat; Experimental value)			
LD50 oral	2660 mg/kg			

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boric acid (10043-35-3)			
LD50 dermal rabbit	> 2000 mg/kg Rabbit; Experimental value; FIFRA (40 CFR)		
LD50 dermal	2500 mg/kg		
4-tert-butylpyrocatechol (98-29-3)			
LD50 oral rat	815 mg/kg bodyweight (Rat; Lethal; ECHA)		
LD50 oral	2820 mg/kg		
LD50 dermal rat	1331 mg/kg bodyweight (Rat;Lethal; ECHA)		
LD50 dermal	630 mg/kg		
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 270, A			
Viscosity, kinematic	48192.771 mm²/s		
Density	1.66 g/cm³ DIN 51757		
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

is aqualis simismismi, silent ten

Not classified.

Hazardous to the aquatic environment, long-term

(chronic)

Not classified.

Other information Avoid release to the environment.

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)		
Tricyclodecane dimethanol dimethacrylate (43048-08-4)			

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1,1,1-Trimethylolpropane trimethacrylate	
LC50 - Fish [1]	2 mg/l
ErC50 algae	3.88 mg/l
NOEC chronic fish	0.138 mg/l
NOEC chronic crustacea	0.177 mg/l
BCF - Fish [2]	366 l/kg
Partition coefficient n-octanol/water (Log Kow)	4.39
Partition coefficient n-octanol/water (Log Pow)	3.53
1,1'-(p-tolylimino)dipropan-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
Partition coefficient n-octanol/water (Log Kow)	2.1
boric acid (10043-35-3)	
LC50 - Fish [1]	447 mg/l
LC50 - Fish [2]	79 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Hard water)
EC50 - Crustacea [1]	658 – 875 mg/l (48 h; Daphnia magna)
EC50 - Crustacea [2]	19.7 mg/l (336 h; Daphnia magna)
	Ten mg. (coon, papina magna)
ErC50 algae	290 mg/l
NOEC chronic fish	2.1 mg/l
BCF - Fish [2]	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)
4-tert-butylpyrocatechol (98-29-3)	
LC50 - Fish [1]	0.12 mg/l (96 h, Danio rerio, Lethal, ECHA)
ErC50 algae	10.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficien (Log Koc)	t 1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

12.2. Persistence and degradability

HIT-HY 270, A			
Persistence and degradability Not established.			
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)			
Not rapidly degradable			
Persistence and degradability Readily biodegradable in water.			

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Mobility in soil

(Log Koc)

Ecology - soil

Partition coefficient n-octanol/water (Log Pow)

Organic Carbon Normalized Adsorption Coefficient

HIT-HY 270, A

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1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)				
Not rapidly degradable				
4-tert-butylpyrocatechol (98-29-3)				
Not rapidly degradable				
Persistence and degradability	Not readily biodegradable in water.			
ThOD	2.4 g O ₂ /g substance			
12.3. Bioaccumulative potential				
HIT-HY 270, A				
Bioaccumulative potential	Not established.			
2-Propenoic acid, 2-methyl-, monoester with	1,2-propanediol (27813-02-1)			
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).			
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)				
BCF - Fish [2]	366 l/kg			
Partition coefficient n-octanol/water (Log Pow)	3.53			
Partition coefficient n-octanol/water (Log Kow)	4.39			
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)				
Partition coefficient n-octanol/water (Log Kow)	2.1			
boric acid (10043-35-3)				
BCF - Fish [2]	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)			
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)			
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).			
4-tert-butylpyrocatechol (98-29-3)				
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)			
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)			
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).			
12.4. Mobility in soil				
HIT-HY 270, A				

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No additional information available

0.97 (OECD 102 method)

Highly mobile in soil.

1.9 (log Koc, Calculated value)

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



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1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)			
Partition coefficient n-octanol/water (Log Pow)	3.53		
Partition coefficient n-octanol/water (Log Kow)	4.39		
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)			
Partition coefficient n-octanol/water (Log Kow)	2.1		
boric acid (10043-35-3)			
Surface tension	No data available in the literature		
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)		
Ecology - soil	No (test)data on mobility of the substance available. May be harmful to plant growth, blooming and fruit formation.		
4-tert-butylpyrocatechol (98-29-3)			
Surface tension	No data available (test not performed)		
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)		
Ecology - soil	Highly mobile in soil.		

12.5. Other adverse effects

Ozone Not classified

Other adverse effects No additional information available

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations

Dispose of contents/container in accordance with licensed collector's sorting instructions. 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.

Additional information

Clean up even minor leaks or spills if possible without unnecessary risk.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID		
14.1. UN number or ID r	14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable		
14.2. UN proper shippin	g name				
Not applicable	Not applicable	Not applicable	Not applicable		
14.3. Transport hazard class(es)					
Not applicable	Not applicable	Not applicable	Not applicable		
14.4. Packing group					
Not applicable	Not applicable	Not applicable	Not applicable		

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ADR	IMDG	IATA	RID			
14.5. Environmental hazards						
Not applicable	Not applicable	Not applicable	Not applicable			
No supplementary information available						

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

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

Regulation	Component / Mixture	
Environmental Protection and Management Act (Hazardous Substances)	List of Hazardous Substances	Boric acid
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	Not applicable	
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations		
Poisons Act	Poisons List	Boric acid
Hazardous waste (Control of export, import and transit) Act	Not applicable	
Strategic goods (Control) Act		

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

 Issue date
 05/02/2025

 Revision date
 05/02/2025

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

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BCF - Bioconcentration factor

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DMEL - Derived Minimal Effect level

DNEL - Derived-No Effect Level

EC50 - Median effective concentration

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods

LC50 - Median lethal concentration

LD50 - Median lethal dose

LOAEL - Lowest Observed Adverse Effect Level

NOAEC - No-Observed Adverse Effect Concentration

NOAEL - No-Observed Adverse Effect Level

NOEC - No-Observed Effect Concentration

OECD - Organisation for Economic Co-operation and Development

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

(EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety Data Sheet

vPvB - Very Persistent and Very Bioaccumulative

None.

Other information

Indication of changes						
Section	Changed item	Change	Comments			
	Regulations Singapore	Modified	According to SS 586 Part 3 (2022)			

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

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