

HIT-RE 500 V4

Safety information for 2-Component-products

Issue date: 17/04/2025 Revision date: 17/04/2025 Supersedes: 11/11/2022 Version: 3.0

SECTION 1: Kit identification

1.1 Product identifier

Product name HIT-RE 500 V4
Product code BU Anchor



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

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunsfield Tower, No. 2, Jalan PJU 1A/7A
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1800 880 985 toll free - F +60 3 7848 7399
myhilti@hilti.com

SECTION 2: General information

Restrictions on use Restricted to professional users 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 Industry Code of Practice on chemicals classification and hazard communication (2014)

 Skin Corr. 1B
 H314

 Eye Dam. 1
 H318

 Skin Sens. 1
 H317

 Repr. 1B
 H360

 STOT SE 3
 H335

 Aquatic Chronic 2
 H411

Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2014)

Hazard pictograms (GHS MY)







GHS08



GHS09

Signal word (GHS MY)

Danger

anger



HIT-RE 500 V4

Kit Safety Information Sheet (SIS)

Hazard statements (GHS MY) H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

H360 - May damage fertility or the unborn child H411 - Toxic to aquatic life with long lasting effects

P280 - Wear eye protection, protective clothing, protective gloves Precautionary statements (GHS MY)

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

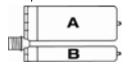
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P302+P352 - IF ON SKIN: Wash with plenty of soap and water

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 Industry Code of Practice on chemicals classification and hazard communication (2014)
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 500 V4, B		1	pcs (pieces)	Acute Tox. 5 (Oral), H303 Skin Corr. 1B, H314 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

SECTION 4: General advice

General advice For professional users only

SECTION 5: Safe handling advice

General measures Spilled material may present a slipping hazard Environmental precautions

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

Full or only partially emptied cartridges must be disposed of as special waste in accordance

with official regulations.

After curing, the product can be disposed of with household waste

Storage conditions Protect from sunlight. Store in a well-ventilated place.

Technical measures Comply with applicable regulations Precautions for safe handling Wear personal protective equipment Avoid contact with skin and eyes

Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work

Avoid contact during pregnancy/while nursing

This material and its container must be disposed of in a safe way, and as per local legislation Methods for cleaning up

Mechanically recover the product

04/06/2025 MY - en 2/30



HIT-RE 500 V4

Kit Safety Information Sheet (SIS)

On land, sweep or shovel into suitable containers

Store away from other materials.

For containment Collect spillage. Incompatible materials Sources of ignition Direct sunlight

> Strong bases Strong acids

SECTION 6: First aid measures

Incompatible products

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.

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

04/06/2025 MY - en 3/30



Safety Data Sheet

According to ICOP 2014

Issue date: 24/04/2025 Revision date: 24/4/2025 Supersedes: 13/06/2023 Version: 3.0

SECTION 1: Identification of the hazardous chemical and of the supplier

1.1. Product identifier

Name HIT-RE 500 V4, A

1.2. Other means of identification

Product code BU Anchor

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional use only
Restrictions on use Restricted to professional users

1.4. Supplier details

Supplier

Hilti (Malaysia) Sdn. Bhd.

F-5-A, Sime Darby Brunsfield Tower, No. 2, Jalan PJU 1A/7A

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Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH

Hiltistraße 6 86916 Kaufering Deutschland T +49 8191 906876

product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

Country	Organisation/Company	Address	Emergency number	Comment
Malaysia	Malaysia National Poison Centre (NPC) Universiti Sains Malaysia	11800 Penang	+60 (0)4 6536 999 (Mon-Fri 8am-10pm; Sat, Sun & Public Holiday 8am-5pm)	

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Skin corrosion or irritation, Category 2 H315
Serious eye damage or eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Reproductive toxicity, Category 1B H360
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

2.2. Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Hazard pictograms (GHS MY)







Signal word (GHS MY)

Danger

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Safety Data Sheet

According to ICOP 2014

Contains 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane;

Trimethylolethantriglycidylether; butanedioldiglycidyl ether; [3-(2,3-

epoxypropoxy)propyl]trimethoxysilane; Formaldehyde, oligomeric reaction products with 1-

chloro-2,3-epoxypropane and phenol

Hazard statements (GHS MY) H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H318 - Causes serious eye damage

H360 - May damage fertility or the unborn child H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS MY) P280 - Wear eye protection, protective clothing, protective gloves

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

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

2.3. Other hazards that do not result in classification

No additional information available

SECTION 3: Composition and information of the ingredients of the hazardous chemical

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3	25 – 40	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute Not classified Aquatic Chronic 2, H411
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS-No.: 9003-36-5	10 – 25	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Trimethylolethantriglycidylether	CAS-No.: 68460-21-9	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412

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Safety Data Sheet

According to ICOP 2014

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
butanedioldiglycidyl ether	CAS-No.: 2425-79-8	5 – 10	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360FD Repr. 1B, H360F Aquatic Acute Not classified Aquatic Chronic 3, H412 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 3, H412
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS-No.: 2530-83-8	2.5 – 5	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Eye Dam. 1, H318 Aquatic Acute Not classified Aquatic Chronic 3, H412

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing. 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.

4.2. Most important symptoms/effects, acute and delayed

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

Symptoms/effects after eye contact Causes serious eye irritation.

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

No additional information available

SECTION 5: Fire-fighting measures

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5 1 Suitable	extinguishing	media
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Suitable extinguishing media Water spray. Carbon dioxide. Dry powder. Foam. Sand.

Unsuitable extinguishing media Do not use a heavy water stream.

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Safety Data Sheet

According to ICOP 2014

5.2. Physicochemical hazards arising from the chemical

Hazardous decomposition products in case of fire Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire fighters

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.

EAC code

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.

Emergency procedures Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and materials 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.

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.

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 conditionsProtect from sunlight.Incompatible productsStrong bases. Strong acids.Incompatible materialsSources of ignition. Direct sunlight.Heat and ignition sourcesKeep away from heat and direct sunlight.

Storage temperature $5-25^{\circ}$ C

SECTION 8: Exposure controls and personal protection

8.1. Control parameters

No additional information available

Exposure limit values for the other components

No additional information available

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Safety Data Sheet

According to ICOP 2014

8.1.1 Biological monitoring

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls No specific measures identified.

8.3. Individual protection measures, such as PPE

Materials for protective clothing:

Long sleeved protective clothing

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. Immediately change contaminated gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	4 (> 120 minutes)	> 0,2		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

Personal protective equipment symbol(s):







Environmental exposure controls

Consumer exposure controls

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

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

Physical state Solid

Appearance Thixotropic paste. Colour Light grey Odour characteristic Odour threshold No data available

No data available Melting point Freezing point No data available Boiling point No data available Flash point Not applicable No data available Evaporation rate Flammability (solid, gas) Non flammable No data available **Explosive limits** Vapour pressure No data available Relative vapour density at 20°C No data available Relative density No data available Solubility insoluble in water.

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Safety Data Sheet

According to ICOP 2014

Partition coefficient n-octanol/water (Log Pow)

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

No data available

Decomposition temperature

No data available

Viscosity, kinematic 31034.483 – 40689.655 mm²/s

Viscosity, dynamic $45 - 59 \text{ Pa} \cdot \text{s } 23 \text{ °C}$ Density 1.45 g/cm^3

SECTION 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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin sensitization

Carcinogenicity

Germ cell mutagenicity

Acute toxicity (oral)

Acute toxicity (dermal)

Acute toxicity (inhalation)

Not classified

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)			
butanedioldiglycidyl ether (2425-79-8)				
LD50 oral rat	2980 mg/kg (Rat)			
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)			
LD50 dermal rat	> 2150 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 7 day(s))			
LD50 dermal rabbit	1130 mg/kg (Rabbit)			
[3-(2,3-epoxypropoxy)propyl]trimethoxysilar	ne (2530-83-8)			
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)			
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)			
Formaldehyde, oligomeric reaction products	s 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)			
Skin corrosion or irritation	Causes skin irritation. pH: 6.6			
Serious eye damage or eye irritation Causes serious eye damage.				
Respiratory sensitization Not classified				

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May cause an allergic skin reaction.

Not classified

Not classified



Safety Data Sheet

According to ICOP 2014

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)				
IARC group	3 - Not classifiable			
Reproductive toxicity	May damage fertility or the unborn child.			
Specific target organ toxicity (STOT) – single exposure	Not classified			
Specific target organ toxicity (STOT) – repeated exposure	Not classified			
Aspiration hazard	Not classified			
HIT-RE 500 V4, A				
Viscosity, kinematic	31034.483 – 40689.655 mm²/s			
Potential adverse human health effects and symptoms	No additional information available.			

SECTION 12: Ecological information

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12.1	-	•	TO	VI	CITV
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Ecology - water

Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

Not classified

(acute)

Hazardous to the aquatic environment, long-term

Toxic to aquatic life with long lasting effects.

(chronic)

Other information Avoid release to the environment.

	Avoid release to the environment.				
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)				
EC50 72h - Algae [1]	9.4 mg/l (EPA 660/3 - 75/009, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)				
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)				
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)				
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)				
butanedioldiglycidyl ether (2425-79-8)					
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA				
LC50 - Other aquatic organisms [1]	> 160 mg/l				
NOEC (acute)	40 mg/l				
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)				
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (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)				
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)				
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (253	0-83-8)				
LC50 - Fish [1]	55 mg/l (96 h; Cyprinus carpio; Young)				
LC50 - Fish [2]	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)				
EC50 - Crustacea [1]	473 – 710 mg/l (48 h; Daphnia magna)				
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)				

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Safety Data Sheet

According to ICOP 2014

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (253	0-83-8)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)
12.2. Persistence and degradability	
HIT-RE 500 V4, A	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymet	hylene)]bisoxirane (1675-54-3)
Not rapidly degradable	
butanedioldiglycidyl ether (2425-79-8)	
Biochemical oxygen demand (BOD)	0.01982 g O ₂ /g substance
12.3. Bioaccumulative potential	
HIT-RE 500 V4, A	
Bioaccumulative potential	Not established.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymet	hylene)]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).
butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (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)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (253	0-83-8)
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)
12.4. Mobility in soil	
HIT-RE 500 V4, A	
Mobility in soil	No additional information available
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymet	hylene)]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.
butanedioldiglycidyl ether (2425-79-8)	
Surface tension	44.4 mN/m (20 °C, 90 %, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (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.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (253	0-83-8)
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

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Safety Data Sheet

According to ICOP 2014

12.5. Other adverse effects

Not classified Ozone

Other adverse effects No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

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.

Ecological waste information Avoid release to the environment.

SECTION 14: Transportation information

n accordance with ADR / IMDG / IATA / RID							
ADR	IMDG	IATA	RID				
Special provision(s) applied : 375	Special provision(s) applied : 375 Special provision(s) applied : 969 Special provision(s) applied : A197 Special provision(s) applied :						
or having a net mass per single or in	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 the transport regulations provided the packagings meet the general provisions.						
14.1. UN number or ID number							
UN 3077 UN 3077 UN 3077 UN 3077							
14.2. UN proper shipping name	14.2. UN proper shipping name						

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol)

Environmentally hazardous substance, solid, n.o.s. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol)

Transport document description

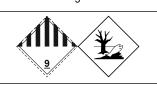
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol), 9, III, (-

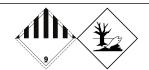
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol), 9, III

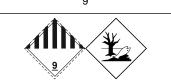
UN 3077 Environmentally hazardous substance, solid, n.o.s. (2,2'-[(1-methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol), 9, III

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxiran e; Formaldehyde, oligomeric reaction products with 1-chloro-2,3epoxypropane and phenol), 9, III

14.3. Transport hazard class(es)







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ADR	IMDG	IATA	RID				
4.4. Packing group							
111 111 111							
14.5. Environmental hazards							
Dangerous for the environment: Yes Dangerous for the environment: Yes Marine pollutant: Yes Dangerous for the environment: Yes Yes 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)

Orange plates 90 3077

Tunnel restriction code (ADR) - EAC code 2Z

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
MFAG-No 171

Air transport

PCA packing instructions (IATA) 956
PCA max net quantity (IATA) 400kg
CAO packing instructions (IATA) 956

Special provisions (IATA) A97, A158, A179, A197, A215

Rail transport

Special provisions (RID) 274, 335, 375, 601

Limited quantities (RID) 5kg

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

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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According to ICOP 2014

SECTION 15: Regulatory information

15.1. Safety, health, and environmental regulations specific for the hazardous chemical in question

Regulation		Component/ Mixture
EHS Notification and Registration Scheme		
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993	Not applicable	HIT-RE 500 V4, A
Environmental Quality (Industrial Efflluent) Regulations 2009		HIT-RE 500 V4, A
Environmental Quality (Scheduled Wastes) Regulations 2007		HIT-RE 500 V4, A
Control of Industrial Major Accident Hazards Regulations 1996		HIT-RE 500 V4, A
Prohibition of Use of Substance Order 1999		HIT-RE 500 V4, A
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000	Chemicals requiring medical surveillance	HIT-RE 500 V4, A
Chemical Weapons Convention Act	Not applicable	HIT-RE 500 V4, A
Corrosive and Explosive Substances and Offensive Weapons Act		HIT-RE 500 V4, A
Dangerous Drugs Act		HIT-RE 500 V4, A
Pesticides Act		HIT-RE 500 V4, A
Petroleum (Safety Measures) Act		HIT-RE 500 V4, A
Poisons Act 1952		HIT-RE 500 V4, A
Poisons (Psychotropic Substances) Regulations 1989		HIT-RE 500 V4, A

15.2. International agreements

No additional information available

SECTION 16: Other information

 Version
 3.0

 Issue date
 24/4/2025

 Revision date
 24/04/2025

 Supersedes
 13/06/2023

Indication of changes			
Section	Changed item	Change	Comments
2.1	Classification (GHS MY)	Modified	
2.2	Hazard pictograms (GHS MY)	Modified	
2.2	Hazard statements (GHS MY)	Modified	

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According to ICOP 2014

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

IATA - International Air Transport Association

EC50 - Median effective concentration

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

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

 $\label{eq:REACH-Registration} \textbf{REACH-Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation}$

(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

Full text of H-statements		
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified	
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Eye Dam. 1	Serious eye damage or eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage or eye irritation, Category 2	
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A	
Flam. Liq. Not classified	Flammable liquids Not classified	
Repr. 1B	Reproductive toxicity, Category 1B	
Repr. 1B	Reproductive toxicity, Category 1B	
Repr. 1B	Reproductive toxicity, Category 1B	
Skin Irrit. 2	Skin corrosion or irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
H302	Harmful if swallowed	
H312	Harmful if in contact with skin	

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According to ICOP 2014

Full text of H-statements		
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	
H318	Causes serious eye damage	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H360	May damage fertility or the unborn child	
H360F	May damage fertility	
H360FD	May damage fertility. May damage the unborn child	
H411 Toxic to aquatic life with long lasting effects H412 Harmful to aquatic life with long lasting effects		

SDS_MY_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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According to ICOP 2014

Issue date: 23/04/2025 Revision date: 23/4/2025 Supersedes: 11/11/2022 Version: 1.2

SECTION 1: Identification of the hazardous chemical and of the supplier

1.1. Product identifier

Name HIT-RE 500 V4, B

1.2. Other means of identification

Product code BU Anchor

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional use only

1.4. Supplier details

Supplier

Hilti (Malaysia) Sdn. Bhd.

F-5-A, Sime Darby Brunsfield Tower, No. 2, Jalan PJU 1A/7A

Oasis Square, Oasis Damansara 47301 Petaling Jaya, Selangor

Malaysia

T +60 3 5628 7222

1800 880 985 toll free - F +60 3 7848 7399

myhilti@hilti.com

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH

Hiltistraße 6 86916 Kaufering Deutschland T +49 8191 906876

product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

Country	Organisation/Company	Address	Emergency number	Comment
Malaysia	Malaysia National Poison Centre (NPC)	11800 Penang	+60 (0)4 6536 999 (Mon-Fri 8am-10pm;	
	Universiti Sains Malaysia		Sat, Sun & Public	
			Holiday 8am-5pm)	

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Skin corrosion or irritation, Category 1B H314
Serious eye damage or eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Specific target organ toxicity – Single exposure, Category 3, H335

Respiratory tract irritation

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H41

2.2. Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Hazard pictograms (GHS MY)



Signal word (GHS MY)

biglial word (GHS WT)

Contains 2-methyl-1,5-pentanediamine; Phenol, styrenated; m-Xylylenediamine; 3-

Aminopropyltriethoxysilan

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According to ICOP 2014

Hazard statements (GHS MY)

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS MY) P280 - Wear eye protection, protective clothing, protective gloves

P262 - Do not get in eyes, on skin, or on clothing P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

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

2.3. Other hazards that do not result in classification

No additional information available

SECTION 3: Composition and information of the ingredients of the hazardous chemical

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2	25 – 35	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute Not classified Aquatic Chronic Not classified
Phenol, styrenated	CAS-No.: 61788-44-1	5 – 10	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
m-Xylylenediamine	CAS-No.: 1477-55-0	4 – <8	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute Not classified Aquatic Chronic 3, H412 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Aquatic Chronic 3, H412

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According to ICOP 2014

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 3	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute Not classified Aquatic Chronic Not classified
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2	1 – 3	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute Not classified Aquatic Chronic Not classified

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.

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.

4.2. Most important symptoms/effects, acute and delayed

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.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Physicochemical hazards arising from the chemical

Hazardous decomposition products in case of fire Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire fighters

chemical fire. Prevent fire fighting water from entering the environment.

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Protection during firefighting Self-contained breathing apparatus. Do not enter fire area without proper protective

equipment, including respiratory protection.

EAC code 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.

Emergency procedures Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and materials 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and

other exposed areas with mild soap and water before eating, drinking or smoking and when

leaving work. Avoid contact during pregnancy/while nursing.

Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures Comply with applicable regulations.

Storage conditions Protect from sunlight. Store in a well-ventilated place.

Incompatible productsStrong bases. Strong acids.Incompatible materialsSources of ignition. Direct sunlight.Heat and ignition sourcesKeep away from heat and direct sunlight.

Storage temperature 5 – 25 °C

SECTION 8: Exposure controls and personal protection

8.1. Control parameters

HIT-RE 500 V4, B		
Malaysia - Occupational Exposure Limits		
Local name m-Xilena α,α'-diamina # m-Xylene α,α'-diamine		
PEL (OEL C)	0.1 ppm	
Remark (MY)	(kulit # skin)	

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m-Xylylenediamine (1477-55-0)		
Malaysia - Occupational Exposure Limits		
Local name	m-Xilena α,α'-diamina # m-Xylene α,α'-diamine	
PEL (OEL C)	0.1 ppm	
Remark (MY)	(kulit # skin)	

Exposure limit values for the other components

Additional information

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

8.1.1 Biological monitoring

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station.

8.3. Individual protection measures, such as PPE

Materials for protective clothing:

Long sleeved protective clothing

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. Immediately change contaminated gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	4 (> 120 minutes)	> 0,2		EN ISO 374

Eye protection:

Wear security glasses which protect from splashes

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

Physical state Solid

Appearance Thixotropic paste.

Colour red
Odour Amine-like
Odour threshold No data available
pH No data available
Melting point No data available
Freezing point No data available

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Viscosity, dynamic

Boiling point No data available Flash point Not applicable Evaporation rate No data available Non flammable. Flammability (solid, gas) **Explosive limits** No data available Vapour pressure No data available Relative vapour density at 20°C No data available Relative density No data available Solubility insoluble in water. Partition coefficient n-octanol/water (Log Pow) No data available Partition coefficient n-octanol/water (Log Kow) No data available Auto-ignition temperature No data available

Decomposition temperature

No data available

Viscosity, kinematic

No data available

38167.939 – 53435.115 mm²/s

Density 1.31 g/cm³

SECTION 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

50 - 70 Pa·s HN-0333

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

2-methyl-1,5-pentanediamine (15520-10-2)		
LD50 oral rat	1690 mg/kg (Rat)	
LD50 oral	1170 mg/kg (Rat)	
LC50 Inhalation - Rat	4.9 mg/l	
Phenol, styrenated (61788-44-1)		
LD50 oral rat	> 2500 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
LC50 Inhalation - Rat	158.31 mg/l/4h	
m-Xylylenediamine (1477-55-0)		
LD50 oral rat	930 mg/kg	
LD50 dermal rat	> 3100 mg/kg	
LD50 dermal	> 3100 mg/kg	
LC50 Inhalation - Rat (Dust/Mist)	1.34 mg/l/4h	

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2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	2169 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)
3-Aminopropyltriethoxysilan (919-30-2)	
LD50 oral rat	1.57 – 2.83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 oral	1570 mg/kg
LD50 dermal rabbit	4.29 ml/kg (EPA OTS 798.1100, 24 h, Rabbit, Male / female, Experimental value, Dermal
LD50 dermal	4290 mg/kg
LC50 Inhalation - Rat [ppm]	> 5 ppm (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat (Dust/Mist)	7.35 mg/l/4h
Skin corrosion or irritation	Causes severe skin burns.
Serious eye damage or eye irritation	Causes serious eye damage.
Respiratory sensitization	Not classified
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (STOT) – single	May cause respiratory irritation.
exposure	
2-methyl-1,5-pentanediamine (15520-10-2)	
Specific target organ toxicity (STOT) – single exposure	May cause respiratory irritation.
Specific target organ toxicity (STOT) – repeated exposure	Not classified
Aspiration hazard	Not classified
HIT-RE 500 V4, B	
Viscosity, kinematic	38167.939 – 53435.115 mm²/s
Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

Partition coefficient n-octanol/water (Log Pow)

12.1. Ecotoxicity	
Ecology - water	Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute)	Not classified
Hazardous to the aquatic environment, long–term (chronic)	Harmful to aquatic life with long lasting effects.
Other information	Avoid release to the environment.
2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l

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0.27 (Estimated value)



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Phenol, styrenated (61788-44-1)	
LC50 - Fish [1]	5.6 mg/l
LC50 - Other aquatic organisms [1]	9.7 mg/l
EC50 - Crustacea [1]	1.44 mg/l
NOEC (acute)	3.2 mg/l
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Threshold limit - Algae [1]	0.326 mg/l (72 h; Algae)
Threshold limit - Algae [2]	0.14 mg/l (72 h; Algae)
m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l
LC50 - Other aquatic organisms [1]	20.3 ppb
EC50 - Crustacea [1]	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LC50 - Fish [1]	> 100 mg/l (96 h; Pisces; Nominal concentration)
LC50 - Fish [2]	70.9 mg/l (96 h; Pisces)
EC50 - Other aquatic organisms [1]	84 mg/l (72 h; Desmodesmus subspicatus; growth rate; ECHA)
ErC50 algae	84 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA)
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Threshold limit - Algae [1]	10 - 100,Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
3-Aminopropyltriethoxysilan (919-30-2)	
LC50 - Fish [1]	> 934 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	331 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 1000 mg/l (EU Method C.3, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)

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Safety Data Sheet

According to ICOP 2014

HIT-RE 500 V4, B Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). Phenol, styrenated (61788-44-1) BCF - Fish [1] 3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] 3246 mg/l Partition coefficient n-octanol/water (Log Pow) 6.24 - 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) Organic Carbon Normalized Adsorption Coefficient 3.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Studge using High Performance Liquid Chromatography (HPLC), Experimental value) Bioaccumulative potential Bioaccumulative potential. 2.4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) 0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).	12.2. Persistence and degradability		
Pienoli, styronated (61788-44-1) Blochemical oxygen demand (COD) 0.000231 g O ₂ /g substance	HIT-RE 500 V4, B		
Biochemical oxygen demand (BOD) 0.004827 g O₂/g substance 3-Aminopropytriethoxysilan (919-30-2) Not rapidly degradable Persistence and degradability Not readily biodegradable in water. 72.3. Bioaccumulative potential HIT-RE 500 VA, B Bioaccumulative potential Not established. 2-methyl-1,5-pentaneodiamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). Phenol, styrenated (61788-44-1) BCF - Fish [1] S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) Bioaccumulative potential S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [1] S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) S246 likg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) S247 - 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water). Slow-String Method) Organic Carbon Normalized Adsorption Coefficient S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Chromatography (HPLC), Experimental value) S248 likg using High Performance Liquid Ch	Persistence and degradability	May cause long-term adverse effects in the environment.	
Chemical oxygen demand (COD) 3-Aminopropytritethoxysilan (919-30-2) Not rapidly degradable Persistence and degradability Not readily biodegradable in water. 12.3. Bioaccumulative potential HIT-RE 500 V4, B Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (1552-10-2) Partition coefficient n-octanol/water (Log Pow) BCF - Fish [1] BCF - Fish [2] Partition coefficient n-octanol/water (Log Pow) Cryanic Carbon Normalized Adsorption Coefficient (Log Koc) Subsequential Silvage Silvage using High Performance Liquid Chromatography (HPLC), Experimental value) Bioaccumulative potential Bioaccumulative potential Bioaccumulative potential Cryanic Carbon Normalized Adsorption Coefficient (Log Row) Cryanic Carbon Normalized Adsorption Coefficient (Lo	Phenol, styrenated (61788-44-1)		
3-Aminopropytricithoxysiian (919-30-2) Not rapidly degradable Persistence and degradability 12.3. Bioaccumulative potential HIT-RE 500 V4, B Bioaccumulative potential 12.4. Bioaccumulative potential 12. Mobility in soil 12. Partition coefficient n-octanol/water (Log Pow) 12. Stimated value) 12. Stimated value 12. Stimated value 13. Bioaccumulative potential 14. Stimated value 15. Postanediamine (15520-10-2) 15. Partition coefficient n-octanol/water (Log Pow) 16. Stimated value) 17. (Experimental value, OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) 18. Stirring Method 18. Stirring Method 18. Stirring Method 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 18. Organic Carbon Normalized Adsorption Coefficient 18. (Log Koc, OECD 123: Partition Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value) 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. Organic Carbon Normalized Adsorption Coefficient 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. Organic Carbon Normalized Adsorption Coefficient 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. Organic Carbon Normalized Adsorption Coefficient 19. Stirring Method 19. Stirring Method 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. Organic Carbon Normalized Adsorption Coefficient 19. Stirring Method 19. Stirring Method 19. Stirring Method 19. Stirring Method 19. O77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. O79 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) 19. O79 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °	Biochemical oxygen demand (BOD)	0.000231 g O ₂ /g substance	
Not rapidly degradable Persistence and degradability Not readily biodegradable in water. 12.3. Bioaccumulative potential HIT-RE 500 V4, B Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Depending styrenated (61788-44-1) BCF - Fish [1] S246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] Partition coefficient n-octanol/water (Log Pow) Stirring Method) Organic Carbon Normalized Adsorption Coefficient Sewage Situdge using High Performance Liquid Chromatography (HPLC), Experimental value) Bioaccumulative potential Bioaccumulative potential 2.4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient 1.32 (log Koc, Calculated value) Bioaccumulative potential 2.4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) O.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient Low bioaccumulative potential Low bioaccumulative potential Low bioaccumulative potential (Log Kov < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] S4 (OCCD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-Through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) O.27 (Estimated value) Phenol, styrenated (61788-44-1)	Chemical oxygen demand (COD)	0.004827 g O ₂ /g substance	
Persistence and degradability Not readily biodegradable in water. 12.3. Bioaccumulative potential HIT-RE 500 V4, B Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Low bioaccumulative potential (Log Kow < 4). Phenol, styrenated (61788-44-1) BCF - Fish [1] S246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] Partition coefficient n-octanol/water (Log Pow) Granic Carbon Normalized Adsorption Coefficient Clug Koo) Organic Carbon Normalized Adsorption Coefficient Value) Bioaccumulative potential Cay First (dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient 1.32 (log Koc, CECD 121: Estimation of the Adsorption Coefficient (Koc) on Sewage Studge using High Performance Liquid Chromatography (HPLC), Experimental value) Bioaccumulative potential 2.4,5-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient 1.32 (log Koc, Calculated value) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carplo, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	3-Aminopropyltriethoxysilan (919-30-2)		
HIT-RE 500 V4, B	Not rapidly degradable		
HIT-RE 500 V4, B Bioaccumulative potential Not established. 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) D.27 (Estimated value) Bioaccumulative potential BCF - Fish [1] 3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] 3246 mg/l Partition coefficient n-octanol/water (Log Pow) String Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Surging Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Surging Method) Bioaccumulative potential Bioaccumulative potential Bioaccumulative potential Bioaccumulative potential Bioaccumulative potential Bioaccumulative potential Carbon Normalized Adsorption Coefficient (Log Koc) 0.77 (Literature: 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 0.77 (Literature: 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 0.77 (Literature: 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 1.32 (log Koc, Calculated value) Bioaccumulative potential Low bioaccumulation potential (Log Koc < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carplo, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)	Persistence and degradability	Not readily biodegradable in water.	
Bioaccumulative potential Not established.	12.3. Bioaccumulative potential		
2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). Phenol, styrenated (61788-44-1) BCF - Fish [1] BCF - Fish [2] 3246 I/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] 3246 mg/l Partition coefficient n-octanol/water (Log Pow) Stirring Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc, OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) Organic Carbon Normalized Adsorption Coefficient (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 Bioaccumulative potential Bioaccumulative potential 2.4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc, Calculated value) (Log Koc) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropytriethoxysilan (919-30-2) BCF - Fish [1] S1.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)	HIT-RE 500 V4, B		
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Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4).	2-methyl-1,5-pentanediamine (15520-10-2)		
Phenol, styrenated (61788-44-1) BCF - Fish [1] 3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] 3246 mg/l Partition coefficient n-octanol/water (Log Pow) 6.24 - 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) Organic Carbon Normalized Adsorption Coefficient (1.00 pt.) 3.1 (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 Bioaccumulative potential. 2.4.6-tris(dimethylaminomethyl)phenol (30-72-2) Partition coefficient n-octanol/water (Log Pow) 0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc, Calculated value) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropyttriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)	
BCF - Fish [1] 3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight) BCF - Fish [2] 3246 mg/l Partition coefficient n-octanol/water (Log Pow) 6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 3.1 (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 Bioaccumulative potential. 2.4.6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) 0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 1.32 (log Koc, Calculated value) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Log Mow 4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).	
BCF - Fish [2] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Sitiring Method) 3.1 (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 Bioaccumulative potential Bioaccumulative potential 2.4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc, Calculated value) Low bioaccumulative potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	Phenol, styrenated (61788-44-1)		
Partition coefficient n-octanol/water (Log Pow) 6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value) Bioaccumulative potential Bioaccumulative potential. 2.4.6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) O.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C) Organic Carbon Normalized Adsorption Coefficient (Log Koc, Calculated value) Low bioaccumulative potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] S.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)	
Stirring Method) Organic Carbon Normalized Adsorption Coefficient (Log Koc) 3.1 (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 Bioaccumulative potential. 2.4.6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential Low bioaccumulative potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] S1.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carplo, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	BCF - Fish [2]	3246 mg/l	
Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value value	Partition coefficient n-octanol/water (Log Pow)		
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential Bioaccumulative potential Description coefficient n-octanol/water (Log Pow) Description coefficient n-octanol/water (Log Pow)		Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental	
Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential CF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)	Bioaccumulative potential	Bioaccumulative potential.	
Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4). 3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)	2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)		
CLog Koc) Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4).	Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)	
3-Aminopropyltriethoxysilan (919-30-2) BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)		1.32 (log Koc, Calculated value)	
BCF - Fish [1] 3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value)	Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).	
Flow-through system, Fresh water, Experimental value, Fresh weight) Partition coefficient n-octanol/water (Log Pow) 1.7 (QSAR, 20 °C) Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	3-Aminopropyltriethoxysilan (919-30-2)		
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500). 12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	BCF - Fish [1]		
12.4. Mobility in soil HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Description of the property of the	Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)	
HIT-RE 500 V4, B Mobility in soil No additional information available 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Mobility in soil 2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	12.4. Mobility in soil		
2-methyl-1,5-pentanediamine (15520-10-2) Partition coefficient n-octanol/water (Log Pow) Phenol, styrenated (61788-44-1)	HIT-RE 500 V4, B		
Partition coefficient n-octanol/water (Log Pow) 0.27 (Estimated value) Phenol, styrenated (61788-44-1)	Mobility in soil	No additional information available	
Phenol, styrenated (61788-44-1)	2-methyl-1,5-pentanediamine (15520-10-2)		
	Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)	
Surface tension 48.45 mN/m (20 °C, 90 %, OECD 115: Surface Tension of Aqueous Solutions)	Phenol, styrenated (61788-44-1)		
	Surface tension	48.45 mN/m (20 °C, 90 %, OECD 115: Surface Tension of Aqueous Solutions)	

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Safety Data Sheet

According to ICOP 2014

Phenol, styrenated (61788-44-1)		
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.1 (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.	
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)		
Surface tension	No data available in the literature	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)	
Ecology - soil	Highly mobile in soil.	
3-Aminopropyltriethoxysilan (919-30-2)		
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)	
Ecology - soil	No (test)data on mobility of the substance available.	

12.5. Other adverse effects

Ozone Not classified

Other adverse effects No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

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.

Ecological waste information

Avoid release to the environment.

SECTION 14: Transportation 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. (2-methyl-1,5- pentanediamine, m- Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5- pentanediamine, m- Xylylenediamine)	Amines, solid, corrosive, n.o.s. (2- methyl-1,5-pentanediamine, m- Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5- pentanediamine, m- Xylylenediamine)
Transport document description	Transport document description		
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl- 1,5-pentanediamine, m- Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl- 1,5-pentanediamine, m- Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (2-methyl-1,5- pentanediamine, m- Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl- 1,5-pentanediamine, m- Xylylenediamine), 8, II

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ADR	IMDG	IATA	RID		
14.3. Transport hazard class(es)					
8	8	8	8		
8	8	8	8		
14.4. Packing group					
II	II II II II II				
14.5. Environmental hazards					
Dangerous for the environment: No Marine pollutant: No Dangerous for the environment: No Dangerous for the environment: No Dangerous for the environment: No					
No supplementary information availa	No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) C8 Special provisions (ADR) 274 Limited quantities (ADR) 1kg P002, IBC08 Packing instructions (ADR)

Mixed packing provisions (ADR) MP10

Transport category (ADR)

Orange plates 80 3259

Tunnel restriction code (ADR) EAC code 2X

Transport by sea

274 Special provisions (IMDG) Limited quantities (IMDG) 1 kg Packing instructions (IMDG) P002 EmS-No. (Fire) F-A S-B EmS-No. (Spillage) Stowage category (IMDG) Α MFAG-No 154

Air transport

PCA packing instructions (IATA) 859 PCA max net quantity (IATA) 15kg CAO packing instructions (IATA) 863 Special provisions (IATA) А3

Rail transport

Special provisions (RID) 274 1kg Limited quantities (RID) Packing instructions (RID)

P002, IBC08

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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Safety Data Sheet

According to ICOP 2014

SECTION 15: Regulatory information

15.1. Safety, health, and environmental regulations specific for the hazardous chemical in question

Regulation		Component/ Mixture
EHS Notification and Registration Scheme		
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993	Not applicable	HIT-RE 500 V4, B
Environmental Quality (Industrial Efflluent) Regulations 2009		HIT-RE 500 V4, B
Environmental Quality (Scheduled Wastes) Regulations 2007	-	HIT-RE 500 V4, B
Control of Industrial Major Accident Hazards Regulations 1996		HIT-RE 500 V4, B
Prohibition of Use of Substance Order 1999	-	HIT-RE 500 V4, B
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000	Chemicals requiring medical surveillance	HIT-RE 500 V4, B
Chemical Weapons Convention Act	Not applicable	HIT-RE 500 V4, B
Corrosive and Explosive Substances and Offensive Weapons Act	-	HIT-RE 500 V4, B
Dangerous Drugs Act		HIT-RE 500 V4, B
Pesticides Act		HIT-RE 500 V4, B
Petroleum (Safety Measures) Act		HIT-RE 500 V4, B
Poisons Act 1952		HIT-RE 500 V4, B
Poisons (Psychotropic Substances) Regulations 1989		HIT-RE 500 V4, B

15.2. International agreements

No additional information available

SECTION 16: Other information

 Version
 1.2

 Issue date
 23/4/2025

 Revision date
 23/04/2025

 Supersedes
 11/11/2022

Indication of changes			
Section	Changed item	Change	Comments
	Emergency number	Modified	

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Safety Data Sheet

According to ICOP 2014

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

IATA - International Air Transport Association

EC50 - Median effective concentration

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

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

 $\label{eq:REACH-Registration} \textbf{REACH-Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation}$

(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

Full text of H-statements		
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified	
Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified	
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Aquatic Chronic Not classified	Hazardous to the aquatic environment – Chronic Hazard Not classified	
Eye Dam. 1	Serious eye damage or eye irritation, Category 1	
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A	
Flam. Liq. Not classified	Flammable liquids Not classified	
Skin Corr. 1	Skin corrosion/irritation, Category 1	
Skin Corr. 1B	Skin corrosion or irritation, Category 1B	
Skin Irrit. 2	Skin corrosion or irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	
H302	Harmful if swallowed	

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Full text of H-statements	
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS_MY_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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