

Safety information for 2-Component-products

Issue date: 19/03/2025 Revision date: 19/03/2025 Supersedes: 08/12/2022 Version: 4.0

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-RE 500 V3



Product code

BU Anchor

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

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SECTION 2: General information

Storage

Storage temperature : 5 - 25 ° C

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

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

SECTION 3: Kit contents

Classification of the Product

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

Health hazards Acute toxicity (Oral), Category 5

Skin corrosion, Category 1B

Serious eye damage/eye irritation, Category 1

Skin sensitization, Category 1 Toxic to reproduction, Category 1B

Specific target organ toxicity - Single exposure, Category

3, Respiratory tract irritation

Environmental hazards Hazardous to the aquatic environment - Acute Hazard,

Category 2

Hazardous to the aquatic environment - Chronic Hazard,

Category 2

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

Label elements

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Safety information for 2-Component-products

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

Hazard pictograms (GHS TW)









Signal word (GHS TW)

Hazardous ingredients

Hazard statements (GHS TW)

Danger

Epoxy resin, Amines

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.

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

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for

several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P302+P352 - IF ON SKIN: Wash with plenty of water. P337+P313 - If eye irritation persists: Get medical

advice/attention.

P333+P313 - If skin irritation or rash occurs: Get medical

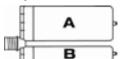
advice/attention.

Additional information

2-component-foilpack, contains:

Component A: Epoxy resin, Reactive diluent, inorganic filler

Component B: Amine hardener, inorganic filler



| Name | General description | Quantity | Unit | Classification according to the United Nations GHS (Rev. 4, 2011) |
|------------------|------------------------|----------|-----------------|---|
| HIT-RE 500 V3, 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 |
| HIT-RE 500 V3, 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 |

SECTION 4: General advice

General advice

For professional users only

SECTION 5: Safe handling advice

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Safety information for 2-Component-products

General measures Spilled material may present a slipping hazard

Environmental precautions Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

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

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

Storage conditions 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, Methods for cleaning up

> and as per local legislation Mechanically recover the product

On land, sweep or shovel into suitable containers

Store away from other materials.

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

Incompatible products Strong bases Strong acids

SECTION 6: First aid measures

First-aid measures after eye Get immediate medical advice/attention.

Immediately rinse with water for a prolonged period while holding contact

the eyelids wide open

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

Consult an eye specialist

Do not induce vomiting First-aid measures after ingestion

Rinse mouth

Immediately call a POISON CENTER/doctor.

First-aid measures after

inhalation

Remove person to fresh air and keep comfortable for breathing.

Wash with plenty of water/...

First-aid measures after skin

contact

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

Symptoms/effects after skin

Causes serious eye damage.

May cause an allergic skin reaction.

contact

SECTION 7: Fire fighting measures

Firefighting instructions Use water spray or fog for cooling exposed containers

Exercise caution when fighting any chemical fire

Prevent fire fighting water from entering the environment

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Safety information for 2-Component-products

Protection during firefighting Self-contained breathing apparatus

Do not enter fire area without proper protective equipment,

 $including\ respiratory\ protection$

Thermal decomposition generates :

Carbon dioxide Carbon monoxide

SECTION 8: Other information

Hazardous decomposition products

No data available

in case of fire

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according to MoL regulation (10702052242)

Issue date: 2025/04/29 Revision date: 2025/04/29 Supersedes: 2023/12/13 Version: 1.6

1. Identification of the chemical and of the business entity

Chemical name HIT-RE 500 V3, B
Product code BU Anchor

Other Names -

Recommended use Composite mortar component for fasteners in the construction industry

Restrictions on use

Names, addresses, and phone numbers of manufacturer, importer or supplier

Supplier

喜利得股份有限公司

220 台湾 台北 - 臺灣 新北市板橋區新站路16號24樓

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Department issuing data specification sheet

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2. Hazard(s) identification

GHS classification (Taiwan)

Health hazards Acute toxicity (Oral), Category 5

Skin corrosion, Category 1B Skin sensitization, Category 1

Specific target organ toxicity - Single exposure, Category 3, Respiratory tract

irritation

Environmental hazards Hazardous to the aquatic environment - Acute Hazard, Category 2

Hazardous to the aquatic environment - Chronic Hazard, Category 3

Label content

Hazard pictograms (GHS TW)

Hazard statements (GHS TW)



 ${\tt GHS05, GHS07}$

Signal word (GHS TW) Danger

(H314) Causes severe skin burns and eye damage

(H317) May cause an allergic skin reaction (H335) May cause respiratory irritation

(H401) Toxic to aquatic life

(H412) Harmful to aquatic life with long lasting effects

Precautionary statements

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according to MoL regulation (10702052242)

Prevention precautionary statements

 $\begin{tabular}{ll} \end{tabular} \begin{tabular}{ll} \end{tabular} \beg$

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

Response Precautionary Statements (P305+P351+P338) IF IN EYES: Rinse cautiously with water for several minutes.

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

(P333+P313) If skin irritation or rash occurs: Get medical advice/attention.

(P337+P313) If eye irritation persists: Get medical advice/attention.

(P302+P352) IF ON SKIN: Wash with plenty of Water.

Storage precautionary statements
Disposal precautionary statements
Other hazards which do not result in

-

classification

-

3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical properties

Refer to Section 9

| Name | CAS-No. | Concentrati on | Classification according to the United Nations GHS |
|---------------------------------------|------------|-------------------|---|
| 2-methyl-1,5-pentanediamine (2-甲基戊二胺) | 15520-10-2 | 25 - 35 | Flammable liquids, Category 4, H227 Acute toxicity (Oral), Category 4, H302 Acute toxicity (Inhalation:dust,mist), Category 4, H332 Skin corrosion, Category 1, H314 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335 |
| Phenol, styrenated (苯乙烯化苯酚) | 61788-44-1 | 5 - 10 | Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitization, Category 1, H317 Hazardous to the aquatic environment - Acute Hazard, Category 1, H400 Hazardous to the aquatic environment - Chronic Hazard, Category 2, H411 |

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according to MoL regulation (10702052242)

| Name | CAS-No. | Concentrati | Classification according to the United Nations GHS |
|---|-----------|-------------|---|
| m-Xylylenediamine (間二甲苯二胺) | 1477-55-0 | 5 - <8 | Acute toxicity (Oral), Category 4, H302 Acute toxicity (Oral), Category 4, H302 Acute toxicity (Inhalation:dust,mist), Category 4, H332 Acute toxicity (Inhalation:dust,mist), Category 4, H332 Skin corrosion, Category 1B, H314 Serious eye damage/eye irritation, Category 1, H318 Skin sensitization, Category 1B, H317 Hazardous to the aquatic environment - Acute Hazard, Category 3, H402 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 |
| 2,4,6-tris(dimethylaminomethyl)phenol (2,4,6- [(二甲胺基)甲基]苯酚) | 90-72-2 | 1 - 2.5 | Acute toxicity (Oral), Category 4, H302 Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment - Acute Hazard, Category 3, H402 |
| 3-Aminopropyltriethoxysilan (3-胺丙基三乙氧基矽烷) | 919-30-2 | 1 - 2.5 | Acute toxicity (Oral), Category 4, H302 Acute toxicity (Dermal), Category 5, H313 Skin corrosion, Category 1B, H314 Skin sensitization, Category 1, H317 |

4. First-aid measures

First aid measures for different exposure routes

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

medical advice (show the label where possible)

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

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according to MoL regulation (10702052242)

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

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

Most Important Symptoms/Effects

First-aid measures after ingestion

Symptoms/effects
Symptoms/effects after skin contact

Symptoms/effects after eye contact

Protection for the first aid staff

Personal Protection in First Aid and Measures

Notes to physician

No additional information available

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Causes serious eye damage.

Avoid all unnecessary exposure

5. Firefighting measures

Extinguishing media

Suitable extinguishing media Foa

Dry powder Carbon dioxide Water spray

Unsuitable extinguishing media Do not use a heavy water stream

Specific hazards arising from firefighting measures

Fire hazard Explosion hazard -

General measures Spilled material may present a slipping hazard

Reactivity in case of fire

 ${\it Hazardous}\ decomposition\ products\ in\ case\ of$

fire

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

Specific firefighting methods

fighting any chemical fire - Prevent fire fighting water from entering the

 ${\tt environment}$

Special protective equipment and precautions for fire-fighters

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

protective equipment, including respiratory protection

Personal protection (Emergency response)

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according to MoL regulation (10702052242)

6. Accidental release measures

Personal precautions

General measures Spilled material may present a slipping hazard

For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel

For emergency responders

Protective equipment Use personal protective equipment as required.

Equip cleanup crew with proper protection

Emergency procedures Ventilate area

Environmental precautions

Environmental precautions Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

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

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

 $\label{lem:mechanically recover the product} \ \ \text{Mechanically recover the product}$

On land, sweep or shovel into suitable containers

Store away from other materials.

Other information Dispose of materials or solid residues at an authorized site

7. Handling and storage

Handling

 $\label{thm:precautions} \mbox{Precautions for safe handling} \qquad \qquad \mbox{Wear personal protective equipment}$

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

Do not eat drink or smoke when using this produce.

Hygiene measures Do not eat, drink or smoke when using this product.

Always wash hands after handling the product

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

Wash contaminated clothing before reuse.

Storage

Technical measures Comply with applicable regulations

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

Incompatible products Strong bases

Strong acids

Incompatible materials Sources of ignition

Direct sunlight

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according to MoL regulation (10702052242)

Storage temperature 5 - 25 ° C

Heat and ignition sources Keep away from heat and direct sunlight

8. Exposure controls/personal protection

Appropriate engineering controls

Ensure good ventilation of the work station

Control parameters

No additional information available

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

Personal protective equipment

General:

Personal protective equipment:

Safety glasses. Protective clothing. Protective gloves.

Materials for protective clothing Long sleeved protective clothing

Respiratory protection:

_

Hand protection:

Hand protection

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:

Eye protection

Wear security glasses which protect from splashes

Skin and body protection:

_

Personal protective equipment symbol(s):







Hygiene measures:

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product

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

Wash contaminated clothing before reuse.

9. Physical and chemical properties

Appearance Thixotropic paste
Physical state Solid
Colour red

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according to MoL regulation (10702052242)

Odour Amine-like

Odour threshold [ppm] No data available

pH 11.5

Evaporation rate No data available No data available Melting point Boiling point No data available Flash point Not applicable Auto-ignition temperature No data available No data available Decomposition temperature Flammability (solid, gas) Non flammable. Vapour pressure No data available Relative vapour density at 20° C No data available

Density $1.31 \ \mathrm{g/cm^3}$ Solubility insoluble in water.

Partition coefficient n-octanol/water (Log

Kow)

Viscosity, dynamic 50 - 70 Pa • s HN-0333 Explosive limits (vol %) No data available

10. Stability and reactivity

Reactivity Corrosive vapours

Chemical stability Stable under normal conditions
Possibility of hazardous reactions No additional information available

Conditions to avoid Direct sunlight. Extremely high or low temperatures

Incompatible materials Strong acids
Strong bases

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products

No data available

Thermal decomposition generates :

fume

Carbon monoxide Carbon dioxide Corrosive vapours

11. Toxicological information

Routes of exposure

No additional information available

Symptoms

Potential adverse human health effects and No additional information available

Acute toxicity

Acute toxicity (oral) May be harmful if swallowed.

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

HIT-RE 500 V3, B

ATE TW (oral) 2356.632 mg/kg bodyweight

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according to MoL regulation (10702052242)

| 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 | |
| 2,4,6-tris(dimethylaminomethyl)phen | ol (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/irritation

Skin corrosion/irritation Causes severe skin burns.

pH: 11.5

Serious eye damage/irritation

Respiratory or skin sensitisation

Respiratory or skin sensitisation May cause an allergic skin reaction.

Chronic toxicity or long-term toxicity

Germ cell mutagenicity

Germ cell mutagenicity Not classified

Carcinogenicity

Carcinogenicity Not classified

Reproductive toxicity

Reproductive toxicity Not classified

 ${\tt STOT-single\ exposure}$

STOT-single exposure May cause respiratory irritation.

| 2-methyl-1,5-pentanediamine (15520-10-2) | |
|--|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |

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according to MoL regulation (10702052242)

STOT-repeated exposure

STOT-repeated exposure Not classified

Aspiration hazard

Aspiration hazard Not classified
Viscosity, kinematic No data available

12. Ecological information

Ecotoxicity

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

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

Hazardous to the aquatic environment, Toxic to aquatic life.

short - term (acute)

| 2-methyl-1,5-pentanediamine (15520-10-2) | | |
|---|--|--|
| LC50 - Fish [1] | 130 mg/l (LC50; 48 h) | |
| 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 | |
| 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 | |
| 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) | |
| 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) | |

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

Hazardous to the aquatic environment, long- Harmful to aquatic life with long lasting effects.

term (chronic)

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

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according to MoL regulation (10702052242)

| m-Xylylenediamine (1477-55-0) | | |
|--|--|--|
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | | |
| NOEC (chronic) 2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA) | | |

Additional ecotoxicological information

| 2-methyl-1,5-pentanediamine (15520-10-2) | | |
|---|--|--|
| LOEC (acute) | 1800 mg/l | |
| NOEC (acute) | 1000 mg/l | |
| Phenol, styrenated (61788-44-1) | | |
| NOEC (acute) | 3.2 mg/l | |
| 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) | | |
| LOEC (chronic) | 15 mg/l | |
| NOEC (acute) | 10.5 mg/kg | |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-72-2) | | |
| Threshold limit - Algae [1] | 10 - 100,Algae | |
| Threshold limit - Algae [2] | 84 mg/l (72 h; Scenedesmus subspicatus; Growth rate) | |

Persistence and degradability

| HIT-RE 500 V3, B | | |
|---|--|--|
| Persistence and degradability | May cause long-term adverse effects in the environment | |
| Phenol, styrenated (61788-44-1) | | |
| Biochemical oxygen demand (BOD) | 0.000231 g O ₂ /g substance | |
| Chemical oxygen demand (COD) | 0.004827 g O ₂ /g substance | |
| 3-Aminopropyltriethoxysilan (919-30-2) | | |
| Persistence and degradability Not readily biodegradable in water | | |

Bioaccumulative potential

| HIT-RE 500 V3, 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 (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) | | |

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according to MoL regulation (10702052242)

| 2-methyl-1,5-pentanediamine (15520-10-2) | | | |
|--|--|--|--|
| Bioaccumulative potential | Bioaccumulative potential | | |
| 2,4,6-tris(dimethylaminomethyl)phenol (90-7 | 2-2) | | |
| 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 | 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) | |
| Surface tension | 48.45 mN/m (20 ° C, 90 %, OECD 115: Surface Tension of Aqueous Solutions) |
| 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 (90-7 | 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. |

Other adverse effects

Ozone Not classified

Other information Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Ecological information Avoid release to the environment.

Sewage disposal recommendations

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according to MoL regulation (10702052242)

Product/Packaging disposal recommendations

After curing, the product can be disposed of with household waste, Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations, Packaging contaminated by the product: Dispose in a safe manner in accordance with local/national regulations

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

| ADR | IMDG | IATA | RID |
|--|--|--|--|
| 14.1. UN number or ID n | umber | | |
| UN 3259 | UN 3259 | UN 3259 | UN 3259 |
| 14.2. UN proper shippin | g 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 descr | iption | | |
| 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 |
| 14.3. Transport hazard of | class(es) | | |
| 8 | 8 | 8 | 8 |
| 8 | 8 | B | 8 |
| 14.4. Packing group | | | |
| II | II | II | II |
| 14.5. Environmental haz | ards | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary informatio | n available | | |

14.6. Special precautions for user

| Overland transport | | |
|--------------------------------|-------------|--|
| Classification code (ADR) | C8 | |
| Special provisions (ADR) | 274 | |
| Limited quantities (ADR) | 1kg | |
| Packing instructions (ADR) | P002, IBC08 | |
| Mixed packing provisions (ADR) | MP10 | |
| Transport category (ADR) | 2 | |

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according to MoL regulation (10702052242)

| Orange plates | 80 | |
|-------------------------------|------|--|
| | 3259 | |
| Tunnel restriction code (ADR) | E | |

| Transport by sea | | |
|-----------------------------|-------------|--|
| Special provisions (IMDG) | 274 | |
| Limited quantities (IMDG) | 1 kg | |
| Packing instructions (IMDG) | P002 | |
| EmS-No. (Fire) | F-A | |
| EmS-No. (Spillage) | S-B | |
| Stowage category (IMDG) | A | |
| Segregation (IMDG) | SGG18, SG35 | |
| MFAG-No | 154 | |

| Air transport | | |
|---------------------------------|----------|--|
| PCA packing instructions (IATA) | 859 | |
| PCA max net quantity (IATA) | 15kg | |
| CAO packing instructions (IATA) | 863 | |
| Special provisions (IATA) | A3, A803 | |

| Rail transport | | |
|----------------------------|-------------|--|
| Special provisions (RID) | 274 | |
| Limited quantities (RID) | 1kg | |
| Packing instructions (RID) | P002, IBC08 | |

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

15. Regulatory information

Applicable regulations

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

16. Other information

Literature references

 Version
 1.6

 Issue date
 2025/04/29

 Revision date
 2025/04/29

 Supersedes
 2023/12/13

| Section | Changed item | Change | Comments |
|---------|-----------------------|----------|----------|
| 2 | GHS TW classification | Modified | |

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according to MoL regulation (10702052242)

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, REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006, RID - Regulations concerning the International Carriage of Dangerous Goods by Rail, SDS - Safety Data Sheet, vPvB - Very Persistent and Very Bioaccumulative

Other information

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 MoL regulation (10702052242)

Issue date: 2025/04/29 Revision date: 2025/04/29 Supersedes: 2023/12/13 Version: 3.0

1. Identification of the chemical and of the business entity

Chemical name HIT-RE 500 V3, A
Product code BU Anchor

Other Names -

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

Names, addresses, and phone numbers of manufacturer, importer or supplier

Supplier

喜利得股份有限公司

220 台湾 台北 - 臺灣 新北市板橋區新站路16號24樓

T +886 2 6630 0345;

0800 221 036 Toll Free - F +886 2 2950 6132

twcs@hilti.com

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH 86916 Deutschland Kaufering Hiltistraße 6

T +49 8191 906876

product.compliance-anchors@hilti.com

Emergency number GBK GmbH Global Regulatory Compliance

+49 (0) 6132-84463

2. Hazard(s) identification

GHS classification (Taiwan)

Health hazards Skin irritation, Category 2

Serious eye damage/eye irritation, Category $\mathbf{1}$

Skin sensitization, Category 1 Toxic to reproduction, Category 1B

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

Label content

Hazard pictograms (GHS TW)









 ${\tt GHS05, GHS07, GHS08, GHS09}$

Signal word (GHS TW) Danger

Hazard statements (GHS TW) (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

Prevention precautionary statements (P280) Wear eye protection, protective clothing, protective gloves.

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

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according to MoL regulation (10702052242)

Response Precautionary Statements

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

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

(P333+P313) If skin irritation or rash occurs: Get medical advice/attention.

(P337+P313) If eye irritation persists: Get medical advice/attention.

(P302+P352) IF ON SKIN: Wash with plenty of Water.

Storage precautionary statements Disposal precautionary statements Other hazards which do not result in

classification

3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical properties Refer to Section 9

| Name | CAS-No. | Concentrati on | Classification according to the United Nations GHS |
|---|------------|-------------------|---|
| 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (2,2'-[(1-甲基亚乙基)双(4,1-亚苯氧基亚甲基)]双环氧乙烷) | 1675-54-3 | 25 - 40 | Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitization, Category 1, H317 Hazardous to the aquatic environment - Acute Hazard, Category 2, H401 Hazardous to the aquatic environment - Chronic Hazard, Category 2, H411 |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (甲醛與環氧氯丙烷及苯酚的寡聚反應產物) | 9003-36-5 | 10 - 20 | Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2, H319 Skin sensitization, Category 1, H317 Hazardous to the aquatic environment - Chronic Hazard, Category 2, H411 |
| Trimethylolethantriglycidylether (甲基乙烷三縮水甘油醚) | 68460-21-9 | 5 - 10 | Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitization, Category 1, H317 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 |

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| Name | CAS-No. | Concentrati on | Classification according to the United Nations GHS |
|--|-----------|-------------------|---|
| butanedioldiglycidyl ether (1,4-丁二醇二縮水甘油醚) | 2425-79-8 | 5 - 10 | Acute toxicity (Oral), Category 4, H302 Acute toxicity (Dermal), Category 4, H312 Acute toxicity (Inhalation), Category 4, H332 Skin irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Skin sensitization, Category 1, H317 Toxic to reproduction, Category 1B, H360 Hazardous to the aquatic environment - Acute Hazard, Category 3, H402 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane ([3-(2,3-環氧丙氧)-丙基]三甲氧基矽烷) | 2530-83-8 | 2.5 - 5 | Acute toxicity (Dermal), Category 5, H313 Serious eye damage/eye irritation, Category 1, H318 Hazardous to the aquatic environment - Acute Hazard, Category 3, H402 Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 |

4. First-aid measures

First aid measures for different exposure routes

| First-aid measures general | Never give anything by mouth to an unconscious person - If you feel unwell, seek |
|---------------------------------------|--|
| | medical advice (show the label where possible) |
| First-aid measures after inhalation | Remove person to fresh air and keep comfortable for breathing Allow affected |
| | person to breathe fresh air - Allow the victim to rest |
| First-aid measures after skin contact | Gently wash with plenty of soap and water Wash contaminated clothing before |
| | reuse If skin irritation occurs: Get immediate medical advice/attention. |
| First-aid measures after eye contact | Rinse immediately with plenty of water - Remove contact lenses, if present and |
| | easy to do. Continue rinsing Obtain medical attention if pain, blinking or |
| | redness persists |
| First-aid measures after ingestion | Rinse mouth - Get medical advice/attention Do not induce vomiting - Obtain |
| | emergency medical attention |
| Wost Important Symptoms/Efforts | |

Most Important Symptoms/Effects

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

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Protection for the first aid staff

Personal Protection in First Aid and

Measures

Avoid all unnecessary exposure

Notes to physician

No additional information available

5. Firefighting measures

Extinguishing media

Suitable extinguishing media Water spray

Carbon dioxide Dry powder Foam Sand

Unsuitable extinguishing media Do not use a heavy water stream

Specific hazards arising from firefighting measures

Fire hazard Explosion hazard -

General measures Spilled material may present a slipping hazard

Reactivity in case of fire

 ${\it Hazardous\ decomposition\ products\ in\ case\ of}$

fire

Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

Specific firefighting methods

fighting any chemical fire - Prevent fire fighting water from entering the

environment

Special protective equipment and precautions for fire-fighters

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

protective equipment, including respiratory protection

Personal protection (Emergency response)

6. Accidental release measures

Personal precautions

General measures Spilled material may present a slipping hazard

For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel

For emergency responders

Protective equipment Use personal protective equipment as required.

Equip cleanup crew with proper protection

Emergency procedures Ventilate area

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according to MoL regulation (10702052242)

Environmental precautions

Environmental precautions Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

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

Methods and material for containment and cleaning up

For containment Collect spillage.

Methods for cleaning up

This material and its container must be disposed of in a safe way, and as per

local legislation

Mechanically recover the product

On land, sweep or shovel into suitable containers

Store away from other materials.

Other information Dispose of materials or solid residues at an authorized site

7. Handling and storage

Handling

 $\label{thm:precautions} \mbox{Precautions for safe handling} \qquad \qquad \mbox{Wear personal protective equipment}$

Avoid contact with skin and eyes

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

drinking or smoking and when leaving work

Hygiene measures Do not eat, drink or smoke when using this product.

Always wash hands after handling the product

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

Wash contaminated clothing before reuse.

Storage

Storage conditions Protect from sunlight.

Incompatible products Strong bases

Strong acids

Incompatible materials Sources of ignition

Direct sunlight

Storage temperature 5 - 25 ° C

Heat and ignition sources Keep away from heat and direct sunlight

8. Exposure controls/personal protection

Appropriate engineering controls Ensure adequate ventilation

Control parameters

No additional information available

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

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Personal protective equipment

General:

Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure. Materials for protective clothing Long sleeved protective clothing

Respiratory protection:

Hand protection:

Hand protection 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:

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:

Personal protective equipment symbol(s):







Hygiene measures:

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product

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

Wash contaminated clothing before reuse.

9. Physical and chemical properties

Thixotropic paste Appearance

Physical state Solid Colour Light grey 0dour characteristic Odour threshold [ppm] No data available

6.6 Evaporation rate No data available Melting point No data available No data available Boiling point Flash point No data available No data available Auto-ignition temperature Decomposition temperature No data available

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Flammability (solid, gas)

Vapour pressure

Relative vapour density at 20° C

No data available

No data available

Density 1.45 g/cm^3

Solubility insoluble in water. Partition coefficient n-octanol/water (Log $$\operatorname{No}$$ data available

Kow)

Viscosity, dynamic 45 - 59 Pa • s 23 ° C Explosive limits (vol %) No data available

10. Stability and reactivity

Reactivity No data available

Chemical stability Stable under normal conditions
Possibility of hazardous reactions No additional information available

Conditions to avoid Direct sunlight. Extremely high or low temperatures

Incompatible materials Strong acids
Strong bases

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products

should not be produced

Thermal decomposition generates:

fume

Carbon monoxide Carbon dioxide

11. Toxicological information

Routes of exposure

No additional information available

Symptoms

Potential adverse human health effects and No additional information available

Acute toxicity

Acute toxicity (oral)

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) | |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5) | | |
| LD50 oral rat > 5000 mg/kg bodyweight (Rat; ECHA) | | |
| LD50 dermal rat | > 2000 mg/kg bodyweight (Rat; ECHA) | |
| butanedioldiglycidyl ether (2425-79-8) | | |
| LD50 oral rat | 2980 mg/kg (Rat) | |
| LD50 oral | 1163 mg/kg (Rat; Exp. Key study ECHA) | |

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

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

pH: 6.6

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation

Respiratory or skin sensitisation May cause an allergic skin reaction.

Chronic toxicity or long-term toxicity

Germ cell mutagenicity

Germ cell mutagenicity Not classified

Carcinogenicity

Not classified Carcinogenicity

Reproductive toxicity

Reproductive toxicity May damage fertility or the unborn child.

STOT-single exposure

STOT-single exposure Not classified

STOT-repeated exposure

STOT-repeated exposure Not classified

Aspiration hazard

Not classified Aspiration hazard Viscosity, kinematic No data available

12. Ecological information

Ecotoxicity

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

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

Hazardous to the aquatic environment, Toxic to aquatic life.

short - term (acute)

| 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) | | |
| butanedioldiglycidyl ether (2425-79-8) | | | |
| LC50 - Fish [1] | 24 mg/l (96 h; Pisces) ECHA | | |
| LC50 - Other aquatic organisms [1] | > 160 mg/l | | |

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| 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3) | | |
|---|--|--|
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8) | | |
| 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) | |

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

Hazardous to the aquatic environment, long-

Toxic to aquatic life with long lasting effects.

term (chronic)

Additional ecotoxicological information

| 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3) | | |
|---|--|--|
| Threshold limit - Algae [1] | > 11 mg/l (72 h; Scenedesmus sp.) | |
| Threshold limit - Algae [2] | 4.2 mg/l (72 h; Scenedesmus sp.) | |
| butanedioldiglycidyl ether (2425-79-8) | | |
| NOEC (acute) | 40 mg/l | |
| Threshold limit - Algae [1] | 88930 mg/l (96 h; Algae) | |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8) | | |
| Threshold limit - Algae [1] 119 mg/l (7 days; Anabaena flosaquae) | | |
| Threshold limit - Algae [2] | 250 mg/l (72 h; Selenastrum capricornutum) | |

Persistence and degradability

| HIT-RE 500 V3, A | | |
|---|--|--|
| Persistence and degradability | May cause long-term adverse effects in the environment | |
| butanedioldiglycidyl ether (2425-79-8) | | |
| Biochemical oxygen demand (BOD) 0.01982 g O ₂ /g substance | | |

Bioaccumulative potential

| HIT-RE 500 V3, A | | | |
|---|---|--|--|
| Bioaccumulative potential | Not established | | |
| 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3) | | | |
| Partition coefficient n-octanol/water (Log Pow) | ≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 ° C) | | |
| Bioaccumulative potential | Low bioaccumulation potential (BCF < 500) | | |
| 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 (2530-83-8) | | | |
| Partition coefficient n-octanol/water (Log Pow) | -0.92 (Estimated value) | | |

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Mobility in soil

| 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3) | | | |
|---|---|--|--|
| Surface tension | 59 mN/m (20 ° C, 0.09 g/l) | | |
| Partition coefficient n-octanol/water (Log Pow) | ≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 ° C) | | |
| Ecology - soil | No (test)data on mobility of the substance available. | | |
| 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 (2530-83-8) | | | |
| Partition coefficient n-octanol/water (Log Pow) | -0.92 (Estimated value) | | |

Other adverse effects

Ozone Not classified

Other information Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Ecological information Avoid release to the environment.

Sewage disposal recommendations

Product/Packaging disposal recommendations After curing, the product can be disposed of with household waste, Full or only

partially emptied cartridges must be disposed of as special waste in accordance with official regulations, Packaging contaminated by the product: Dispose in a

safe manner in accordance with local/national regulations

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

| ADR | IMDG | IATA | RID |
|------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| Special provision(s) applied : 375 | Special provision(s) applied : 969 | Special provision(s) applied : A197 | Special provision(s) applied : 375 |

These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.8.

14.1. UN number or ID number

| | UN 3077 | UN 3077 | UN 3077 | UN 3077 | |
|--|---------|---------|---------|---------|--|

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| ADR | DR IMDG IATA | | RID | |
|---|--|--|--|--|
| 14.2. UN proper shipping | g name | | | |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]bi soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]bi soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol) | Environmentally hazardous substance, solid, n.o.s. (2,2'- [(1-methylethylidene)bis(4,1- phenyleneoxymethylene)]bisoxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]b soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol) | |
| Transport document descri | iption | | | |
| UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]bi soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol), 9, III, (-) | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]bi soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol), 9, III | UN 3077 Environmentally hazardous substance, solid, n.o.s. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1- methylethylidene)bis(4,1- phenyleneoxymethylene)]bi soxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3- epoxypropane and phenol), 9, III | |
| 14.3. Transport hazard c | elass(es) | 9 | 9 | |
| 3 ¥2 | | | 3 | |
| 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 | |
| - | | (quantity of liquids \leq 5 litres or net mass of solids \leq 5 kg). Tated in the ADR regulation, section 5.2.1.8.1. | he environmentally | |
| not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7 | | | | |

14.6. Special precautions for user

| Overland transport | | |
|--------------------------------|-------------------------|--|
| Classification code (ADR) | M7 | |
| Special provisions (ADR) | 274, 335, 375, 601 | |
| Limited quantities (ADR) | 5kg | |
| Packing instructions (ADR) | P002, IBC08, LP02, R001 | |
| Mixed packing provisions (ADR) | MP10 | |
| Transport category (ADR) | 3 | |

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| Orange plates | 90 |
|-------------------------------|------|
| | 3077 |
| Tunnel restriction code (ADR) | - |

Transport by sea

Special provisions (IMDG) 274, 335, 375, 966, 967, 969

Limited quantities (IMDG) 5 kg
Packing instructions (IMDG) LP02, P002
EmS-No. (Fire) F-A
EmS-No. (Spillage) S-F
Stowage category (IMDG) A
Stowage and handling (IMDG) SW23

Air transport

MFAG-No

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

15. Regulatory information

Applicable regulations

- 1. Occupational Safety and Health Act
- 2. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste

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3. Traffic Safety Rule

16. Other information

Literature references

 Version
 3.0

 Issue date
 2025/04/29

 Revision date
 2025/04/29

 Supersedes
 2023/12/13

| Section | Changed item | Change | Comments |
|---------|--|----------|----------|
| 2 | GHS TW classification | Modified | |
| 2 | Hazard pictograms (GHS TW) | Modified | |
| 2 | Hazard statements (GHS TW) | Modified | |
| 3 | Composition/information on ingredients | Modified | |

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according to MoL regulation (10702052242)

| Section | Changed item | Change | Comments |
|---------|-----------------------|----------|----------|
| 14 | Transport Information | Modified | |

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, REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006, RID - Regulations concerning the International Carriage of Dangerous Goods by Rail, SDS - Safety Data Sheet, vPvB - Very Persistent and Very Bioaccumulative

Other information

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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