

# HIT-RE 500 V4

<b>en</b>	This safety data sheet file is issued for the following production lots: 1. Version 1.X is valid for HIT-RE 500 V4 with a maximum expiration date of 02/2024 (see foil pack manifold) 2. Version 2.0 is valid for HIT-RE 500 V4 with a minimum expiration date of 03/2024 (see the foil pack manifold)
<b>de</b>	Diese Sicherheitsdatenblatt-Datei betrifft die folgenden Fertigungslose: 1. Version 1.X ist gültig für HIT-RE 500 V4 mit einem Haltbarkeitsdatum bis 02/2024 (siehe Verbindungsteil) 2. Version 2.0 ist gültig für HIT-RE 500 V4 mit einem Haltbarkeitsdatum ab 03/2024 (siehe Verbindungsteil)
<b>nl</b>	Dit veiligheidsinformatiebladbestand wordt afgegeven voor de volgende productie-lots: 1. Versie 1.X is geldig voor HIT-RE 500 V4 met een maximale houdbaarheidsdatum tot 02/2024 (zie foliepak verdeler) 2. Versie 2.0 is geldig voor HIT-RE 500 V4 met een minimale houdbaarheidsdatum tot 03/2024 (zie foliepak verdeler)
<b>fr</b>	Ce fichier de données de sécurité est délivré pour les lots de production suivants : 1. La version 1.X est valide pour HIT-RE 500 V4 avec une date d'expiration maximale de 02/2024 (voir le raccord de cartouche souple) 2. La version 2.0 est valide pour HIT-RE 500 V4 avec une date d'expiration maximale de 03/2024 (voir le raccord de cartouche souple)
<b>da</b>	Denne sikkerhedsdatabladfil er udgivet for følgende produktions lots: 1. Version 1.X er gældende for HIT-RE 500 V4 med en maksimal udløbsdato d. 02/2024 (se foliepakkens manifold) 2. Version 2.0 er gældende for HIT-RE 500 V4 med en mindste udløbsdato d. 03/2024 (se foliepakkens manifold)
<b>sv</b>	Denna säkerhetsdatabladfil har utfärdats för följande tillverkningspartier: 1. Version 1.X är giltig för HIT-RE 500 V4 med ett sista giltighetsdatum den 02/2024 (se folieförpackningens grenrör) 2. Version 2.0 är giltig för HIT-RE 500 V4 med ett första giltighetsdatum den 03/2024 (se folieförpackningens grenrör)
<b>fi</b>	Tämä käyttöturvallisuustiedote koskee seuraavia tuotantoeriä: 1. Versio 1.X koskee HIT-RE 500 V4 -tuotetta, jonka viimeinen käyttöpäivämäärä on 02/2024 tai sitä ennen (ks. foliopakkauksen taite) 2. Versio 2.0 koskee HIT-RE 500 V4 -tuotetta, jonka viimeinen käyttöpäivämäärä on 03/2024 tai sen jälkeen (ks. foliopakkauksen taite)
<b>hu</b>	Ezt a biztonsági adatlapot a következő gyártási tételéhez bocsátják ki: 1. Az 1.X változat legfeljebb 2024/02 lejáratú dátummal érvényes a HIT-RE 500 V4-re (lásd a fóliacsomag sokszorosított iratát) 2. Az 2.0 változat legalább 2024/03 lejáratú dátummal érvényes a HIT-RE 500 V4-re (lásd a fóliacsomag sokszorosított iratát)
<b>es</b>	Este archivo de hoja de datos de seguridad se emite para los siguientes lotes de producción: 1. Versión 1.X válida para HIT-RE 500 V4 con una fecha de caducidad máxima de 02/2024 (consulte el colector de láminas) 2. Versión 2.0 válida para HIT-RE 500 V4 con una fecha de caducidad mínima de 03/2024 (consulte el colector de láminas)
<b>pt</b>	Este ficheiro com ficha de dados de segurança é emitido para os seguintes lotes de produção: 1. A versão 1.X é válida para a HIT-RE 500 V4 com um prazo máximo de validade até 02/2024 (ver as diversas embalagens) 2. A versão 2.0 é válida para a HIT-RE 500 V4 com um prazo mínimo de validade até 03/2024 (ver as diversas embalagens)
<b>it</b>	Questo file della scheda tecnica di sicurezza è rilasciato per i seguenti lotti di produzione: 1. La versione 1.X è valida per HIT-RE 500 V4 con data di scadenza massima 02/2024 (vedere la giunzione della confezione) 2. La versione 2.0 è valida per HIT-RE 500 V4 con data di scadenza minima 03/2024 (vedere la giunzione della confezione)
<b>pl</b>	Ten plik arkusza danych bezpieczeństwa jest wydany dla następujących części produkcyjnych: 1. Wersja 1.X obowiązuje w przypadku HIT-RE 500 V4 z maksymalnym dniem rozpoczęcia pracy 02/2024 (patrz opakowanie foliowe) 2. Wersja 2.0 obowiązuje w przypadku HIT-RE 500 V4 z minimalnym dniem rozpoczęcia pracy 03/2024 (patrz opakowanie foliowe)
<b>ru</b>	Этот файл сертификата безопасности предоставлен для следующих партий продукции: 1. Версия 1.X действительна для HIT-RE 500 V4 с максимальным сроком годности до 02.2024 г. (см. присоединительную часть на капсуле) 2. Версия 2.0 действительна для HIT-RE 500 V4 с минимальным сроком годности до 03.2024 г. (см. присоединительную часть на капсуле)
<b>el</b>	Το παρόν δελτίο δεδομένων ασφαλείας εκδίδεται για τις ακόλουθες παρτίδες παραγωγής: 1. Η έκδοση 1.X ισχύει για το HIT-RE 500 V4 με μέγιστη ημερομηνία λήξης τον 02/2024 (βλέπε διανομέα συσκευασίας μεμβράνης) 2. Η έκδοση 2.0 ισχύει για το HIT-RE 500 V4 με ελάχιστη ημερομηνία λήξης τον 03/2024 (βλέπε τον διανομέα της συσκευασίας μεμβράνης)
<b>cs</b>	Tento soubor s bezpečnostním listem je vystaven pro tyto výrobní závody 1. Verze 1.X je platná pro HIT-RE 500 V4 s maximálním datem expirace 02/2024 (viz fólie balení) 2. Verze 2.0 je platná pro HIT-RE 500 V4 s minimálním datem expirace 03/2024 (viz fólie balení)
<b>bg</b>	Този информационен лист за безопасност се публикува за следните производствени партии: 1. Версия 1.X е валидна за HIT-RE 500 V4 с максимален срок на валидност до 02.2024 г. (вж. фолийна опаковка за колектор) 2. Версия 2.0 е валидна за HIT-RE 500 V4 с минимален срок на изтичане 03.2024 г. (вж. фолийна опаковка за колектор)
<b>lv</b>	Šo drošības datu lapa ir izsniegta šādām ražojumu partijām: 1. Versija 1.X ir derīga izstrādājumam HIT-RE 500 V4, kura maksimālais derīguma termiņš ir 2024. gada februāris (skatīt folija iepakojuma kolektoru) 2. Versija 2.0 ir derīga izstrādājumam HIT-RE 500 V4, kura minimālais derīguma termiņš ir 2024. gada marts (skatīt folija iepakojuma kolektoru)
<b>lt</b>	Šis saugos duomenų lapo failas išduodamas šioms gamybos partijoms: 1. 1.X versija galioja HIT-RE 500 V4, kurios maksimali galiojimo data – 2024-02 (žr. folinių pakuočių rinkinį) 2. 2.0 versija galioja HIT-RE 500 V4, kurios minimali galiojimo data – 2024-03 (žr. folinių pakuočių rinkinį)
<b>sk</b>	Tento súbor bezpečnostných údajov sa vydáva pre tieto výrobné šarže: 1. Verzia 1.X je platná pre HIT-RE 500 V4 s maximálnym dátumom expirácie 02/2024 (pozrite si údaj na fólii balenia) 2. Verzia 2.0 je platná pre HIT-RE 500 V4 s minimálnym dátumom expirácie 03/2024 (pozrite si údaj na fólii balenia)
<b>sl</b>	Datoteka z varnostnim listom je izdana za naslednje proizvodne serije: 1. Različica 1.X je veljavna za izdelek HIT-RE 500 V4 z maksimalnim datumom poteka veljavnosti: 02/2024 (glejte pakiranje) 2. Različica 2.0 je veljavna za izdelek HIT-RE 500 V4 z minimalnim datumom poteka veljavnosti: 03/2024 (glejte pakiranje)

# HIT-RE 500 V4

<b>et</b>	See ohutuskaardi fail on välja antud järgmistele tootepartiidele: 1. Versioon 1.X kehtib tootele HIT-RE 500 V4 viimase säilimiskuupäevaga 02/2024 (vt fooliumpakendi hargnemiskohta) 2. Versioon 2.0 kehtib tootele HIT-RE 500 V4 esimese säilimiskuupäevaga 03/2024 (vt fooliumpakendi hargnemiskohta)
<b>ro</b>	Acest fișier cu date tehnice de securitate este emis pentru următoarele locuri de producție: 1. Versiunea 1.X este valabilă pentru HIT-RE 500 V4 cu data maximă de expirare 02/2024 (a se vedea racordul pentru cartușe din folie) 2. Versiunea 2.0 este valabilă pentru HIT-RE 500 V4 cu data minimă de expirare 03/2024 (a se vedea racordul pentru cartușe din folie)
<b>hr</b>	Ovaj sigurnosno-tehnički list izdaje se za sljedeće proizvodne serije: 1. Verzija 1.X vrijedi za HIT-RE 500 V4 s maksimalnim rokom trajanja do 02/2024 (vidjeti razvodnik iz folije) 2. Verzija 2.0 vrijedi za HIT-RE 500 V4 s minimalnim rokom trajanja do 03/2024 (vidjeti razvodnik iz folije)
<b>tr</b>	Bu güvenlik bilgi formu dosyası aşağıdaki üretim partileri için hazırlanmıştır: 1. Versiyon 1.X, maksimum son kullanma tarihi 02/2024 olan HIT-RE 500 V4 için geçerlidir (bkz. folyo paketi manifoldu) 2. Versiyon 2.0, inimumm son kullanma tarihi 03/2024 olan HIT-RE 500 V4 için geçerlidir (bkz. folyo paketi manifoldu)
<b>uk</b>	Цей файл сертифіката безпеки надано для наступних партій продукції: 1. Версія 1.X дійсна для HIT-RE 500 V4 з максимальним терміном придатності до 02.2024 р. (див. приєднувальну частину на капсулі) 2. Версія 2.0 дійсна для HIT-RE 500 V4 з мінімальним терміном придатності до 03.2024 р. (див. приєднувальну частину на капсулі)
<b>zh</b>	本安全数据表文件针对以下生产批次发布： 1. 版本 1.X 对 HIT-RE 500 V4 有效，最长失效日期为 2024 年 02 月（参见箔包装歧管） 2. 版本 2.0 对 HIT-RE 500 V4 有效，最短失效日期为 2024 年 03 月（参见箔包装歧管）
<b>ar</b>	يتم إصدار ملف صحيفة بيانات السلامة لتشغيلات الإنتاج التالية: 1. الإصدار 1.X صالح لـ HIT-RE 500 V4 بحد أقصى لتاريخ انتهاء الصلاحية هو 2024/02 (انظر العبوة المصنوعة من رقائق الألومنيوم) 2. الإصدار 2.0 صالح لـ HIT-RE 500 V4 على الأقل لتاريخ انتهاء الصلاحية هو 2024/03 (انظر العبوة المصنوعة من رقائق الألومنيوم)
<b>ja</b>	この安全性データシートファイルは、次の生産ロット用に発行されています： 1. バージョン 1.X は、有効期限が最大 2024 年 02 月までの HIT-RE 500 V4 に対して有効です (フویلパック連結部に表示) 2. バージョン 2.0 は、有効期限が 2024 年 03 月以降の HIT-RE 500 V4 に対して有効です (フویلパック連結部に表示)
<b>sr</b>	Datoteka bezbednosnog lista se izdaje za sledeće proizvodne serije: 1. Verzija 1.X je dostupna za HIT-RE 500 V4 sa maksimalnim datumom isteka 02/2024 (pogledajte ivicu pakovanja od folije) 2. Verzija 2.0 je dostupna za HIT-RE 500 V4 sa minimalnim datumom isteka 03/2024 (pogledajte ivicu pakovanja od folije)
<b>ms</b>	Fail helaian data keselamatan ini dikeluarkan untuk lot pengeluaran yang berikut: 1. Versi 1.X adalah sah untuk HIT-RE 500 V4 dengan tarikh tamat tempoh maksimum pada 02/2024 (lihat manifold pek kerajang) 2. Versi 2.0 adalah sah untuk HIT-RE 500 V4 dengan tarikh tamat tempoh minimum pada 03/2024 (lihat manifold pek kerajang)
<b>ko</b>	본 안전보건자료는 다음 제품 로트에 대해 발급되었습니다. 1. 버전 1.X(은)는 HIT-RE 500 V4에 대해 유효하며, 최대 만료 기한은 2024년 02월입니다(호일 팩 매니폴드 참조) 2. 버전 2.0(은)는 HIT-RE 500 V4에 대해 유효하며, 최소 만료 기한은 2024년 03월입니다(호일 팩 매니폴드 참조)
<b>id</b>	File lembar data keselamatan ini diterbitkan untuk lot produksi berikut: 1. Versi 1.X berlaku untuk HIT-RE 500 V4 dengan tanggal kedaluwarsa maksimum 02/2024 (lihat foil pack manifold) 2. Versi 2.0 berlaku untuk HIT-RE 500 V4 dengan tanggal kedaluwarsa minimum 03/2024 (lihat foil pack manifold)
<b>he</b>	קובץ גיליון נתוני בטיחות זה מופק עבור מגרשי הייצור הבאים: 1. גרסה 1.X תקפה ל-HIT-RE 500 V4 עם תאריך תפוגה מקסימלי של 02/2024 (ראה יריעת foil pack) 2. גרסה 2.0 תקפה ל-HIT-RE 500 V4 עם תאריך תפוגה מינימלי של 03/2024 (ראה יריעת foil pack)
<b>th</b>	แผนข้อมูลด้านความปลอดภัยนี้จัดทำสำหรับล็อตการผลิตดังต่อไปนี้: 1. เวอร์ชัน 1.X ใช้ได้กับ HIT-RE 500 V4 ที่มีวันหมดอายุไม่เกิน 02/2024 (โปรดดูแผนพับห่อฟอยล์) 2. เวอร์ชัน 2.0 ใช้ได้กับ HIT-RE 500 V4 ที่มีวันหมดอายุขั้นต่ำ 03/2024 (โปรดดูแผนพับห่อฟอยล์)
<b>vi</b>	Tệp bảng dữ liệu an toàn này được phát hành cho các lô sản xuất sau: 1. Phiên bản 1.X hợp lệ cho HIT-RE 500 V4 với ngày hết hạn tối đa là 02/2024 (xem ống keo cấy thép) 2. Phiên bản 2.0 hợp lệ cho HIT-RE 500 V4 với ngày hết hạn tối thiểu là 03/2024 (xem ống keo cấy thép)
<b>zh tw</b>	下列生產批次將獲核發本安全資料表檔案： 1. 1.X 版適用於 HIT-RE 500 V4，最長到期日 02/2024 (請見鋁箔包打字紙) 2. 2.0 版適用於 HIT-RE 500 V4，最短到期日 03/2024 (請見鋁箔包打字紙)
<b>kk</b>	Бұл қауіпсіздік паспорты мына өндірістік партиялар үшін шығарылады: 1. 1.X нұсқасы жарамдылық мерзімі көп уақытты (02/2024) қамтитын HIT-RE 500 V4 үшін жарамды (жұқалтыр қаптаманы қараңыз) 2. 2.0 нұсқасы жарамдылық мерзімі аз уақытты (03/2024) қамтитын HIT-RE 500 V4 үшін жарамды (жұқалтыр қаптаманы қараңыз)

# HIT-RE 500 V4

## Safety information for 2-Component-products

Issue date: 11/11/2022

Revision date: 11/11/2022

Supersedes: 01/09/2022

Version: 2.0

### 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 (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct  
Corner Bridal Veil Road and R101  
2090 Midrand - South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

### SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

### SECTION 3:

#### Classification of the Product

##### Classification according to the United Nations GHS

Acute Tox. 5 (Oral)	H303
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

#### Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



GHS05

GHS07

GHS09

Signal word (GHS UN)

Danger

Hazardous ingredients

Epoxy resin, Amines

Hazard statements (GHS UN)

H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.  
H411 - Toxic to aquatic life with long lasting effects.

# HIT-RE 500 V4

## Safety information for 2-Component-products

### Precautionary statements (GHS UN)

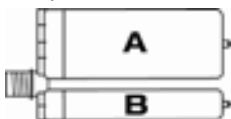
P280 - Wear eye protection, protective clothing, protective gloves.  
 P262 - Do not get in eyes, on skin, or on clothing.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352 - IF ON SKIN: Wash 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
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 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

Methods for cleaning up

This material and its container must be disposed of in a safe way, and as per local legislation  
 Mechanically recover the product  
 On land, sweep or shovel into suitable containers  
 Store away from other materials.

For containment

Collect spillage.

Incompatible materials

Sources of ignition  
 Direct sunlight

Incompatible products

Strong bases  
 Strong acids

# HIT-RE 500 V4

## Safety information for 2-Component-products

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### SECTION 6: First aid measures

First-aid measures after eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist
First-aid measures after ingestion	Do not induce vomiting Rinse mouth Immediately call a POISON CENTER/doctor.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash with plenty of water/... Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

### SECTION 7: Fire fighting measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide

### SECTION 8: Other information

No data available

# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 11/11/2022 Revision date: 11/11/2022

Supersedes: 29/09/2022

Version: 1.2

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Product name	HIT-RE 500 V4, B
UN-No. (ADR)	3259
Product code	BU Anchor

#### 1.2. Other means of identification

No additional information available

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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct Corner Bridal Veil Road and R101  
ZA- 2090 Midrand  
South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

##### Department issuing data specification sheet

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

#### 1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +2711 237300
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### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Acute toxicity (oral), Category 5	H303	Calculation method
Skin corrosion/irritation, Category 1B	H314	Expert judgment
Skin sensitisation, Category 1	H317	Calculation method
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412	Calculation method

Full text of H-statements: see section 16

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

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

Hazardous ingredients

2-methyl-1,5-pentanediamine, Phenol, styrenated, m-Xylylenediamine, 2,4,6-tris(dimethylaminomethyl)phenol, 3-Aminopropyltriethoxysilan



# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Hazard statements (GHS UN)	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 (GHS UN)	P262 - Do not get in eyes, on skin, or on clothing. P280 - Wear eye protection, protective clothing, protective gloves. 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, medical attention. P337+P313 - If eye irritation persists: Get medical advice, medical attention. P302+P352 - IF ON SKIN: Wash with plenty of water.

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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2	25 – 35	Flammable liquids, Category 4, H227 Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1A, H314 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335
Phenol, styrenated	CAS-No.: 61788-44-1	5 – 10	Flammable liquids Not classified Acute toxicity (inhalation:dust,mist) Not classified Skin corrosion/irritation, Category 2, H315 Skin sensitisation, 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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Name	Product identifier	%	Classification according to the United Nations GHS
m-Xylylenediamine	CAS-No.: 1477-55-0	4 – <8	Acute toxicity (oral), Category 4, H302 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1B, H314 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 3	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2	1 – 3	Flammable liquids, Category 4, H227 Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 5, H313 Skin corrosion/irritation, Category 1B, H314 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard Not classified

Full text of H-statements: see section 16

## 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.



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

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

Treat symptomatically.

## 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. Specific hazards arising from the chemical

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

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures	Spilled material may present a slipping hazard.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
----------------------	---------------------------------

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

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according to the United Nations GHS (Rev. 9, 2021)

### 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 products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight.

Heat and ignition sources

Keep away from heat and direct sunlight.

Storage temperature

5 – 25 °C

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station.

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.

Other information

Do not eat, drink or smoke during use.

#### 8.3. Individual protection measures, such as personal protective equipment (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.

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

Eye protection

Wear security glasses which protect from splashes

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

Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state

Solid

# HIT-RE 500 V4, B

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according to the United Nations GHS (Rev. 9, 2021)

Appearance	Thixotropic paste
Colour	red.
Odour	Amine-like.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Non flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1,31 g/cm <sup>3</sup>
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Solubility	insoluble in water.
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Particle size	Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Corrosive vapours.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	May be harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

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<b>HIT-RE 500 V4, B</b>	
ATE UN (oral)	2842,757 mg/kg bodyweight
<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 Inhalation - Rat	4,9 mg/l
<b>Phenol, styrenated (61788-44-1)</b>	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158,31 mg/l/4h
<b>m-Xylylenediamine (1477-55-0)</b>	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	> 3100 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1,34 mg/l/4h
<b>2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)</b>	
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)
<b>3-Aminopropyltriethoxysilan (919-30-2)</b>	
LD50 oral rat	1,57 – 2,83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	4,29 ml/kg (EPA OTS 798.1100, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	> 5 ppm (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/irritation	Assumed to cause serious eye damage
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	May cause respiratory irritation.
<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Toxic to aquatic life.

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according to the United Nations GHS (Rev. 9, 2021)

Classification procedure (Hazardous to the aquatic environment, short-term (acute))	Calculation method
Hazardous to the aquatic environment, long-term (chronic)	Harmful to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
<b>Phenol, styrenated (61788-44-1)</b>	
LC50 - Fish [1]	5,6 mg/l
LC50 - Other aquatic organisms [1]	9,7 mg/l
EC50 - Crustacea [1]	1,44 mg/l
EC50 72h - Algae [1]	0,326 mg/l (Algae, Literature study)
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)
<b>m-Xylylenediamine (1477-55-0)</b>	
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
<b>2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)</b>	
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)
Threshold limit - Algae [1]	10 - 100, Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
<b>3-Aminopropyltriethoxysilan (919-30-2)</b>	
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)

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### 12.2. Persistence and degradability

HIT-RE 500 V4, 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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0,004827 g O <sub>2</sub> /g substance
m-Xylylenediamine (1477-55-0)	
Not rapidly degradable	
3-Aminopropyltriethoxysilan (919-30-2)	
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 Kow)	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 Kow)	6,24 – 7,77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Bioaccumulative potential	Bioaccumulative potential.
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Kow)	0,77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
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 Kow)	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
Phenol, styrenated (61788-44-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3,145 (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)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1,32 (log Koc, Calculated value)

# HIT-RE 500 V4, B

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according to the United Nations GHS (Rev. 9, 2021)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Ecology - soil	Highly mobile in soil.
3-Aminopropyltriethoxysilan (919-30-2)	
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
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
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.
Ecology - waste materials	Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
UN 3259	UN 3259	UN 3259	UN 3259
<b>14.2. UN proper shipping name</b>			
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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
8	8	8	8
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No

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ADR	IMDG	IATA	RID
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

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



Tunnel restriction code (ADR)	E
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#### 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
MFAG-No	154

#### Air transport

PCA packing instructions (IATA)	859
PCA max net quantity (IATA)	15kg
CAO packing instructions (IATA)	863
Special provisions (IATA)	A3

#### Rail transport

Special provisions (RID)	274
Limited quantities (RID)	1kg
Packing instructions (RID)	P002, IBC08

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

Not applicable

## SECTION 15: Regulatory information

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

No additional information available

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	11/11/2022
Revision date	11/11/2022
Supersedes	10/02/2021



# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Section	Changed item	Change	Comments
	SDS format	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  
 None.

### Other information

Full text of H-statements:	
H227	Combustible liquid
H302	Harmful if swallowed
H303	May be harmful if swallowed
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
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
H401	Toxic to aquatic life
H402	Harmful to aquatic life



# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Full text of H-statements:	
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS\_UN\_Hilti

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

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Issue date: 11/11/2022 Revision date: 11/11/2022

Supersedes: 29/09/2022

Version: 2.0

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Product name	HIT-RE 500 V4, A
UN-No. (ADR)	3077
Product code	BU Anchor

#### 1.2. Other means of identification

No additional information available

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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct Corner Bridal Veil Road and R101  
ZA- 2090 Midrand  
South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

##### Department issuing data specification sheet

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

#### 1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +2711 237300
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### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 1	H318	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411	Calculation method
Full text of H-statements: see section 16		

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

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

Hazardous ingredients

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane, Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, Trimethylol ethane triglycidyl ether Polymer, butanedioldiglycidyl ether, [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Hazard statements (GHS UN)	H315 - Causes skin irritation H317 - May cause an allergic skin reaction H318 - Causes serious eye damage H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (GHS UN)	P262 - Do not get in eyes, on skin, or on clothing. P280 - Wear eye protection, protective clothing, protective gloves. 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, medical attention. P337+P313 - If eye irritation persists: Get medical advice, medical attention. P302+P352 - IF ON SKIN: Wash with plenty of water.

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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3	25 – 40	Flammable liquids Not classified Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, 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	CAS-No.: 9003-36-5	10 – 25	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411
Trimethylol ethane triglycidyl ether Polymer	CAS-No.: 68460-21-9	5 – 10	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Name	Product identifier	%	Classification according to the United Nations GHS
butanedioldiglycidyl ether	CAS-No.: 2425-79-8	5 – 10	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Acute toxicity (inhal.), Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, Category 1, H317 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	CAS-No.: 2530-83-8	2,5 – 5	Flammable liquids Not classified Acute toxicity (oral) Not classified 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

Full text of H-statements: see section 16

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

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

### 5.2. Specific hazards arising from the chemical

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

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

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

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

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Heat and ignition sources	Keep away from heat and direct sunlight.

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Storage temperature 5 – 25 °C

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls	No specific measures identified.
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.
Other information	Do not eat, drink or smoke during use.

#### 8.3. Individual protection measures, such as personal protective equipment (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.

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

Eye protection Wear security glasses which protect from splashes

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

Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste
Colour	Light grey.
Odour	characteristic.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Non flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH	6,6
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1,45 g/cm <sup>3</sup>
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Solubility	insoluble in water.
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Particle size	Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

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

<b>2,2'-[[1-methylethylidene]bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rabbit	1130 mg/kg (Rabbit)



# HIT-RE 500 V4, A

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according to the United Nations GHS (Rev. 6, 2015)

<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
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	Causes skin irritation. pH: 6,6
Serious eye damage/irritation	Causes serious eye damage. pH: 6,6
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Toxic to aquatic life.
Classification procedure (Hazardous to the aquatic environment, short-term (acute))	Calculation method
Hazardous to the aquatic environment, long-term (chronic)	Toxic to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

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

<b>butanedioldiglycidyl ether (2425-79-8)</b>	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)

<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
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)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)

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<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)

### 12.2. Persistence and degradability

<b>HIT-RE 500 V4, A</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Not rapidly degradable	

<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)</b>	
Not rapidly degradable	

<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Biochemical oxygen demand (BOD)	0,01982 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>HIT-RE 500 V4, A</b>	
Bioaccumulative potential	Not established.

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	≥ 2,918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0,15

<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0,92 (Estimated value)

### 12.4. Mobility in soil

<b>HIT-RE 500 V4, A</b>	
Mobility in soil	No additional information available

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
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
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
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.
Ecology - waste materials	Avoid release to the environment.

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.			
<b>14.1. UN number or ID number</b>			
UN 3077	UN 3077	UN 3077	UN 3077
<b>14.2. UN proper shipping name</b>			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (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)]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)]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)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)
<b>Transport document description</b>			
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)]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)]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)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)

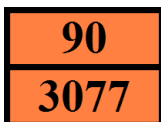
M7

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5kg
Packing instructions (ADR)	P002, IBC08, LP02, R001
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	3
Orange plates	



Tunnel restriction code (ADR) -

### Transport by sea

Special provisions (IMDG)	274, 335, 966, 967, 969
Limited quantities (IMDG)	5 kg
Packing instructions (IMDG)	LP02, P002
EmS-No. (Fire)	F-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

## SECTION 15: Regulatory information

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

No additional information available

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	11/11/2022
Revision date	11/11/2022
Supersedes	10/02/2021

Section	Changed item	Change	Comments
2.1	Classification (GHS UN)	Modified	
2.2	Hazard pictograms (GHS UN)	Modified	
2.2	Hazard statements (GHS UN)	Modified	
3	Composition/information on ingredients	Modified	

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 6, 2015)

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  
 None.

### Other information

Full text of H-statements:	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
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
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS\_UN\_Hilti

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

# HIT-RE 500 V4

## Safety information for 2-Component-products

Issue date: 01/09/2022

Revision date: 01/09/2022

Supersedes: 10/02/2021

Version: 1.1

### 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 (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct  
Corner Bridal Veil Road and R101  
2090 Midrand - South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

### SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

### SECTION 3:

#### Classification of the Product

##### Classification according to the United Nations GHS

Acute Tox. 5 (Oral)	H303
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Muta. 2	H341
Repr. 1B	H360
STOT SE 3	H335
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

#### Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



GHS05



GHS07



GHS08



GHS09

Signal word (GHS UN)

Danger

Hazardous ingredients

Epoxy resin, Amines

# HIT-RE 500 V4

## Safety information for 2-Component-products

### Hazard statements (GHS UN)

H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H335 - May cause respiratory irritation.  
 H341 - Suspected of causing genetic defects.  
 H360 - May damage fertility or the unborn child.  
 H411 - Toxic to aquatic life with long lasting effects.

### Precautionary statements (GHS UN)

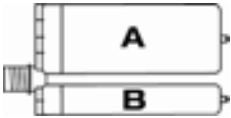
P280 - Wear eye protection, protective clothing, protective gloves.  
 P262 - Do not get in eyes, on skin, or on clothing.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352 - IF ON SKIN: Wash 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
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
HIT-RE 500 V4, A (GHS08)		1	pcs (pieces)	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 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

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

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

# HIT-RE 500 V4

## Safety information for 2-Component-products

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For containment	On land, sweep or shovel into suitable containers Store away from other materials.
Incompatible materials	Collect spillage. Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

### SECTION 6: First aid measures

First-aid measures after eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist
First-aid measures after ingestion	Do not induce vomiting Rinse mouth Immediately call a POISON CENTER/doctor.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash with plenty of water/... Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

### SECTION 7: Fire fighting measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide

### SECTION 8: Other information

No data available



# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 29/09/2022 Revision date: 29/09/2022

Supersedes: 10/02/2021

Version: 1.1

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Product name	HIT-RE 500 V4
UN-No. (ADR)	1759
Product code	BU Anchor

#### 1.2. Other means of identification

No additional information available

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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct Corner Bridal Veil Road and R101  
ZA- 2090 Midrand  
South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

##### Department issuing data specification sheet

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

#### 1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +2711 237300
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### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Skin corrosion/irritation, Category 1C	H314	Calculation method
Serious eye damage/eye irritation, Category 1	H318	Expert judgment
Skin sensitisation, Category 1	H317	Calculation method
Germ cell mutagenicity, Category 2	H341	Expert judgment
Reproductive toxicity, Category 1B	H360	Expert judgment
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411	Calculation method
Full text of H-statements: see section 16		

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

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

Hazardous ingredients

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane, butanedioldiglycidyl ether

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Hazard statements (GHS UN)	<p>H314 - Causes severe skin burns and eye damage</p> <p>H317 - May cause an allergic skin reaction</p> <p>H341 - Suspected of causing genetic defects</p> <p>H360 - May damage fertility or the unborn child</p> <p>H411 - Toxic to aquatic life with long lasting effects</p>
Precautionary statements (GHS UN)	<p>P262 - Do not get in eyes, on skin, or on clothing.</p> <p>P280 - Wear eye protection, protective clothing, protective gloves.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P313 - If skin irritation or rash occurs: Get medical advice, medical attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice, medical attention.</p> <p>P302+P352 - IF ON SKIN: Wash with plenty of water.</p>

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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3	25 – 40	<p>Flammable liquids Not classified</p> <p>Skin corrosion/irritation, Category 2, H315</p> <p>Serious eye damage/eye irritation, Category 2A, H319</p> <p>Skin sensitisation, Category 1, H317</p> <p>Hazardous to the aquatic environment – Acute Hazard, Category 2, H401</p> <p>Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411</p>
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS-No.: 9003-36-5	10 – 25	<p>Skin corrosion/irritation, Category 2, H315</p> <p>Serious eye damage/eye irritation, Category 2A, H319</p> <p>Skin sensitisation, Category 1, H317</p> <p>Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411</p>

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Name	Product identifier	%	Classification according to the United Nations GHS
butanedioldiglycidyl ether	CAS-No.: 2425-79-8	5 – 10	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Acute toxicity (inhal.), Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	CAS-No.: 30499-70-8	5 – 10	Skin corrosion/irritation, Category 1C, H314 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, category 1B, H317 Germ cell mutagenicity, Category 2, H341 Reproductive toxicity, Category 1B, H360 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS-No.: 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

Full text of H-statements: see section 16

## 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.

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

First-aid measures after ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.
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### 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.
Potential adverse human health effects and symptoms	No additional information available.

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

### 5.2. Specific hazards arising from the chemical

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

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures	Spilled material may present a slipping hazard.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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#### 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.
Other information	Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
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# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Protect from sunlight.  
 Incompatible products Strong bases. Strong acids.  
 Incompatible materials Sources of ignition. Direct sunlight.  
 Heat and ignition sources Keep away from heat and direct sunlight.  
 Storage temperature 5 – 25 °C

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls No specific measures identified.  
 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.  
 Other information Do not eat, drink or smoke during use.

### 8.3. Individual protection measures, such as personal protective equipment (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.

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

Eye protection Wear security glasses which protect from splashes

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

Personal protective equipment symbol(s)



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state Solid  
 Appearance Thixotropic paste  
 Colour Light grey.  
 Odour characteristic.  
 Odour threshold Not available  
 Melting point Not available  
 Freezing point Not available  
 Boiling point Not available

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Flammability	Non flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50 °C	Not available
Density	1,45 g/cm <sup>3</sup>
Relative density	Not available
Relative vapour density at 20 °C	Not applicable
Solubility	insoluble in water.
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Particle size	Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

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

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)</b>	
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rabbit	1130 mg/kg (Rabbit)
<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
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	Causes severe skin burns.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Toxic to aquatic life.
Classification procedure (Hazardous to the aquatic environment, short-term (acute))	Calculation method
Hazardous to the aquatic environment, long-term (chronic)	Toxic to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
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)
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit - Algae [2]	4,2 mg/l (72 h; Scenedesmus sp.)
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
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)
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

<b>HIT-RE 500 V4, A</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Not rapidly degradable	
<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)</b>	
Not rapidly degradable	
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Biochemical oxygen demand (BOD)	0,01982 g O <sub>2</sub> /g substance
<b>1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (30499-70-8)</b>	
Not rapidly degradable	

### 12.3. Bioaccumulative potential

<b>HIT-RE 500 V4, A</b>	
Bioaccumulative potential	Not established.
<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	≥ 2,918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0,15
<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0,92 (Estimated value)

### 12.4. Mobility in soil

<b>HIT-RE 500 V4, A</b>	
Mobility in soil	No additional information available
<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
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
Other information	Avoid release to the environment.



# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
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.
Ecology - waste materials	Avoid release to the environment.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
UN 1759	UN 1759	UN 1759	UN 1759
<b>14.2. UN proper shipping name</b>			
CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)	CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)	Corrosive solid, n.o.s. (trimethylolpropane triglycidylether)	CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether)
<b>Transport document description</b>			
UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, MARINE POLLUTANT/ENVIRONMENTALL Y HAZARDOUS	UN 1759 Corrosive solid, n.o.s. (trimethylolpropane triglycidylether), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1759 CORROSIVE SOLID, N.O.S. (trimethylolpropane triglycidylether), 8, III, ENVIRONMENTALLY HAZARDOUS
<b>14.3. Transport hazard class(es)</b>			
8	8	8	8
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available			

#### 14.6. Special precautions for user

##### Overland transport

Classification code (ADR)	C10
Special provisions (ADR)	274
Limited quantities (ADR)	5kg
Packing instructions (ADR)	P002, IBC08, LP02, R001
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	3

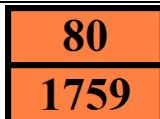


# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Orange plates



Tunnel restriction code (ADR)

E

### Transport by sea

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

### Air transport

PCA packing instructions (IATA)	860
PCA max net quantity (IATA)	25kg
CAO packing instructions (IATA)	864
Special provisions (IATA)	A3, A803

### Rail transport

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

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

Not applicable

## SECTION 15: Regulatory information

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

No additional information available

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	29/09/2022
Revision date	29/09/2022
Supersedes	10/02/2021

Section	Changed item	Change	Comments
	Legislation	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



# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

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  
None.

Other information

Full text of H-statements:	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
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
H341	Suspected of causing genetic defects
H360	May damage fertility or the unborn child
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS\_UN\_Hilti

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

# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 29/09/2022 Revision date: 29/09/2022

Supersedes: 10/02/2021

Version: 1.1

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Product name	HIT-RE 500 V4
UN-No. (ADR)	3259
Product code	BU Anchor

#### 1.2. Other means of identification

No additional information available

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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti (South Africa) (Pty) Ltd.  
2 Tugela Lane, Waterfall Logistics Precinct Corner Bridal Veil Road and R101  
ZA– 2090 Midrand  
South Africa  
T +2711 237300 - F +2711 2373111  
[Customercare.za@hilti.com](mailto:Customercare.za@hilti.com)

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
DE– 86916 Kaufering  
Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

#### 1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +2711 237300
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### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Acute toxicity (oral), Category 5	H303	Calculation method
Skin corrosion/irritation, Category 1B	H314	Expert judgment
Skin sensitisation, Category 1	H317	Calculation method
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412	Calculation method
Full text of H-statements: see section 16		

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

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

Hazardous ingredients

2-methyl-1,5-pentanediamine, Phenol, styrenated, m-Xylylenediamine, 2,4,6-tris(dimethylaminomethyl)phenol, 3-Aminopropyltriethoxysilan

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Hazard statements (GHS UN)	<p>H314 - Causes severe skin burns and eye damage</p> <p>H317 - May cause an allergic skin reaction</p> <p>H335 - May cause respiratory irritation</p> <p>H401 - Toxic to aquatic life</p> <p>H412 - Harmful to aquatic life with long lasting effects</p>
Precautionary statements (GHS UN)	<p>P262 - Do not get in eyes, on skin, or on clothing.</p> <p>P280 - Wear eye protection, protective clothing, protective gloves.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P313 - If skin irritation or rash occurs: Get medical advice, medical attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice, medical attention.</p> <p>P302+P352 - IF ON SKIN: Wash with plenty of water.</p>

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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2	25 – 35	<p>Flammable liquids, Category 4, H227</p> <p>Acute toxicity (oral), Category 4, H302</p> <p>Acute toxicity (dermal), Category 4, H312</p> <p>Acute toxicity (inhalation:dust,mist) Category 4, H332</p> <p>Skin corrosion/irritation, Category 1A, H314</p> <p>Serious eye damage/eye irritation, Category 1, H318</p> <p>Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335</p>
Phenol, styrenated	CAS-No.: 61788-44-1	5 – 10	<p>Flammable liquids Not classified</p> <p>Acute toxicity (inhalation:dust,mist) Not classified</p> <p>Skin corrosion/irritation, Category 2, H315</p> <p>Skin sensitisation, Category 1, H317</p> <p>Hazardous to the aquatic environment – Acute Hazard, Category 1, H400</p> <p>Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411</p>

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Name	Product identifier	%	Classification according to the United Nations GHS
m-Xylylenediamine	CAS-No.: 1477-55-0	4 – <8	Acute toxicity (oral), Category 4, H302 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1B, H314 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 3	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2	1 – 3	Flammable liquids, Category 4, H227 Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 5, H313 Skin corrosion/irritation, Category 1B, H314 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard Not classified

Full text of H-statements: see section 16

## 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.

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

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

Treat symptomatically.

## 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. Specific hazards arising from the chemical

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

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures	Spilled material may present a slipping hazard.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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#### 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.
Other information	Dispose of materials or solid residues at an authorized site.

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### 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 products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight.

Heat and ignition sources

Keep away from heat and direct sunlight.

Storage temperature

5 – 25 °C

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station.

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.

Other information

Do not eat, drink or smoke during use.

#### 8.3. Individual protection measures, such as personal protective equipment (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.

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

Eye protection

Wear security glasses which protect from splashes

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

Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state

Solid



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Appearance	Thixotropic paste
Colour	red.
Odour	Amine-like.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Non flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50 °C	Not available
Density	1,31 g/cm <sup>3</sup>
Relative density	Not available
Relative vapour density at 20 °C	Not applicable
Solubility	insoluble in water.
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Particle size	Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Corrosive vapours.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	May be harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

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<b>HIT-RE 500 V4, B</b>	
ATE UN (oral)	2842,757 mg/kg bodyweight
<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 Inhalation - Rat	4,9 mg/l
<b>Phenol, styrenated (61788-44-1)</b>	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158,31 mg/l/4h
<b>m-Xylylenediamine (1477-55-0)</b>	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	> 3100 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1,34 mg/l/4h
<b>2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)</b>	
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)
<b>3-Aminopropyltriethoxysilan (919-30-2)</b>	
LD50 oral rat	1,57 – 2,83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	4,29 ml/kg (EPA OTS 798.1100, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	> 5 ppm (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/irritation	Assumed to cause serious eye damage
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	May cause respiratory irritation.
<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	No additional information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Toxic to aquatic life.

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Classification procedure (Hazardous to the aquatic environment, short-term (acute))	Calculation method
Hazardous to the aquatic environment, long-term (chronic)	Harmful to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
<b>Phenol, styrenated (61788-44-1)</b>	
LC50 - Fish [1]	5,6 mg/l
LC50 - Other aquatic organisms [1]	9,7 mg/l
EC50 - Crustacea [1]	1,44 mg/l
EC50 72h - Algae [1]	0,326 mg/l (Algae, Literature study)
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)
<b>m-Xylylenediamine (1477-55-0)</b>	
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
<b>2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)</b>	
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)
Threshold limit - Algae [1]	10 - 100,Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
<b>3-Aminopropyltriethoxysilan (919-30-2)</b>	
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)

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### 12.2. Persistence and degradability

HIT-RE 500 V4, 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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0,004827 g O <sub>2</sub> /g substance
m-Xylylenediamine (1477-55-0)	
Not rapidly degradable	
3-Aminopropyltriethoxysilan (919-30-2)	
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 Kow)	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 Kow)	6,24 – 7,77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Bioaccumulative potential	Bioaccumulative potential.
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Kow)	0,77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
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 Kow)	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
Phenol, styrenated (61788-44-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3,145 (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)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1,32 (log Koc, Calculated value)

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2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Ecology - soil	Highly mobile in soil.
3-Aminopropyltriethoxysilan (919-30-2)	
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
Other information	Avoid release to the environment.





## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
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.
Ecology - waste materials	Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
UN 3259	UN 3259	UN 3259	UN 3259
<b>14.2. UN proper shipping name</b>			
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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
8	8	8	8
			
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No

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ADR	IMDG	IATA	RID
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

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



Tunnel restriction code (ADR)	E
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#### 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
MFAG-No	154

#### Air transport

PCA packing instructions (IATA)	859
PCA max net quantity (IATA)	15kg
CAO packing instructions (IATA)	863
Special provisions (IATA)	A3

#### Rail transport

Special provisions (RID)	274
Limited quantities (RID)	1kg
Packing instructions (RID)	P002, IBC08

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

Not applicable

## SECTION 15: Regulatory information

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

No additional information available

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	29/09/2022
Revision date	29/09/2022
Supersedes	10/02/2021

# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Section	Changed item	Change	Comments
	Legislation	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  
 None.

### Other information

Full text of H-statements:	
H227	Combustible liquid
H302	Harmful if swallowed
H303	May be harmful if swallowed
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
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
H401	Toxic to aquatic life
H402	Harmful to aquatic life



# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Full text of H-statements:	
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS\_UN\_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.