

HIT-RE 500 V4

en	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)
de	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)
nl	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)
fr	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)
da	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)
sv	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)
fi	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)
hu	Ezt a biztonági 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)
es	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)
pt	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)
it	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)
pl	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)
ru	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 HIT-RE 500 V4 с минимальным сроком годности до 03.2024 г. (см. присоединительную часть на капсуле)
el	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)
cs	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)
bg	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)
lv	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)
lt	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)
sk	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)
sl	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

et	See ohutuskaardi fail on välja antud järgmistele tootepartidele: 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)
ro	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)
hr	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)
tr	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)
uk	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)
zh	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）
ar	يتم إصدار ملف صحيفة بيانات السلامة لتشغيلات الإنتاج التالية: 1. الإصدار 1.X صالح لـ HIT-RE 500 V4 بعد 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)
ja	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 (ファイルパック 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 (ファイルパック 連結部に表示)
sr	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)
ms	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)
ko	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)
id	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)
he	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)
th	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)
vi	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)
zh tw	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)
kk	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 (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor - Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

SECTION 2: General information

Storage Storage temperature : 5 - 25 °C

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

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

SECTION 3: Kit contents

Classification of the Product

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

Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Chronic 2	H411

Label elements

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

Hazard pictograms (GHS MY)



GHS05

GHS07

GHS09

Signal word (GHS MY)

Danger

Hazard statements (GHS MY)

H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction

HIT-RE 500 V4

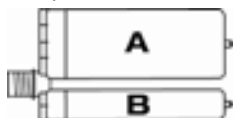
Kit Safety Information Sheet (SIS)

Precautionary statements (GHS MY)

H335 - May cause respiratory irritation
H411 - Toxic to aquatic life with long lasting effects
P280 - Wear eye protection, protective clothing, protective gloves
P262 - Do not get in eyes, on skin, or on clothing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P302+P352 - IF ON SKIN: Wash with plenty of soap and water

Additional information

2-component-foilpack, contains:
Component A: Epoxy resin, Reactive diluent, inorganic filler
Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2014)
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
HIT-RE 500 V4, B		1	pcs (pieces)	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 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

HIT-RE 500 V4

Kit Safety Information Sheet (SIS)

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, B

Safety Data Sheet

According to ICOP 2014

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

Supersedes: 01/09/2022

Version: 1.1

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

1.1. Product identifier

Name HIT-RE 500 V4, B

1.2. Other means of identification

Product code BU Anchor

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional use only
Composite mortar component for fasteners in the construction industry

1.4. Supplier details

Supplier

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunsfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor
Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering
Deutschland
T +49 8191 906876
anchor.hse@hilti.com

1.5. Emergency phone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+60 3 5628 7222
1800 880 985 toll free

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

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

Skin corrosion or irritation, Category 1B	H314
Serious eye damage or eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3,	H335
Respiratory tract irritation	
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

2.2. Label elements

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

Hazard pictograms (GHS MY)



Signal word (GHS MY)

Danger

Contains

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

Hazard statements (GHS MY)

H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

Precautionary statements (GHS MY)

P280 - Wear eye protection, protective clothing, protective gloves
 P262 - Do not get in eyes, on skin, or on clothing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water

2.3. Other hazards that do not result in classification

No additional information available

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

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2	25 – 35
Phenol, styrenated	CAS-No.: 61788-44-1	5 – 10
m-Xylylenediamine	CAS-No.: 1477-55-0	4 – <8
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 3
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2	1 – 3

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

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

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

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

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

5.1. Suitable extinguishing media

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

5.2. Physicochemical hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

5.3. Special protective equipment and precautions 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.
EAC code	2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures	Spilled material may present a slipping hazard.
6.1.1. For non-emergency personnel	
Emergency procedures	Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and materials for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Comply with applicable regulations.
Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Incompatible 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 and personal protection

8.1. Control parameters

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

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

HIT-RE 500 V4, B	
Remark (MY)	(kulit # skin)
m-Xylylenediamine (1477-55-0)	
Malaysia - Occupational Exposure Limits	
Local name	m-Xilena α,α'-diamina # m-Xylene α,α'-diamine
PEL (OEL C) [ppm]	0.1 ppm
Remark (MY)	(kulit # skin)

Exposure limit values for the other components

Additional information

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

8.1.1 Biological monitoring

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station.

8.3. Individual protection measures, such as PPE

Materials for protective clothing:

Long sleeved protective clothing

Hand protection:

Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

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):



Environmental exposure controls

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

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

Physical state

Solid

Appearance

Thixotropic paste.

Colour

red

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

Odour	Amine-like
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable.
Explosive limits	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Density	1.31 g/cm ³

SECTION 10: Stability and reactivity

Reactivity	Corrosive vapours
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Direct sunlight, Extremely high or low temperatures
Incompatible materials	Strong acids, Strong bases
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced, Thermal decomposition generates :fume, Carbon monoxide, Carbon dioxide, Corrosive vapours

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

2-methyl-1,5-pentanediamine (15520-10-2)	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 Inhalation - Rat	4.9 mg/l
Phenol, styrenated (61788-44-1)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158.31 mg/l/4h
m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	> 3100 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.34 mg/l/4h

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Safety Data Sheet

According to ICOP 2014

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	2169 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)
3-Aminopropyltriethoxysilan (919-30-2)	
LD50 oral rat	1.57 – 2.83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 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 or irritation	Causes severe skin burns.
Serious eye damage or eye irritation	Causes serious eye damage.
Respiratory sensitization	Not classified
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (STOT) – single exposure	May cause respiratory irritation.
2-methyl-1,5-pentanediamine (15520-10-2)	
Specific target organ toxicity (STOT) – single exposure	May cause respiratory irritation.
Specific target organ toxicity (STOT) – repeated exposure	Not classified
Aspiration hazard	Not classified
Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - water	Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Harmful to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)
Phenol, styrenated (61788-44-1)	
LC50 - Fish [1]	5.6 mg/l
LC50 - Other aquatic organisms [1]	9.7 mg/l
EC50 - Crustacea [1]	1.44 mg/l
EC50 72h - Algae [1]	0.326 mg/l (Algae, Literature study)
NOEC (acute)	3.2 mg/l
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)

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Safety Data Sheet

According to ICOP 2014

Phenol, styrenated (61788-44-1)	
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Threshold limit - Algae [1]	0.326 mg/l (72 h; Algae)
Threshold limit - Algae [2]	0.14 mg/l (72 h; Algae)
m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l
LC50 - Other aquatic organisms [1]	20.3 ppb
EC50 - Crustacea [1]	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LC50 - Fish [1]	> 100 mg/l (96 h; Pisces; Nominal concentration)
LC50 - Fish [2]	70.9 mg/l (96 h; Pisces)
EC50 - Other aquatic organisms [1]	84 mg/l (72 h; Desmodesmus subspicatus; growth rate; ECHA)
ErC50 algae	84 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA)
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Threshold limit - Algae [1]	10 - 100, Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
3-Aminopropyltriethoxysilan (919-30-2)	
LC50 - Fish [1]	> 934 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	331 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 1000 mg/l (EU Method C.3, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)

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 ₂ /g substance
Chemical oxygen demand (COD)	0.004827 g O ₂ /g substance

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According to ICOP 2014

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 Pow)	0.27 (Estimated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).
Phenol, styrenated (61788-44-1)	
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Bioaccumulative potential	Bioaccumulative potential.
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).
3-Aminopropyltriethoxysilan (919-30-2)	
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

HIT-RE 500 V4, B	
Mobility in soil	No additional information available
2-methyl-1,5-pentanediamine (15520-10-2)	
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)
Phenol, styrenated (61788-44-1)	
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (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)	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
3-Aminopropyltriethoxysilan (919-30-2)	
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transportation information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II
14.3. Transport hazard class(es)			
8	8	8	8
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

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
EAC code	2X

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 hazardous chemical in question

Regulation	Component/ Mixture
EHS Notification and Registration Scheme	
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993	Not applicable
Environmental Quality (Industrial Effluent) Regulations 2009	HIT-RE 500 V4, B
Environmental Quality (Scheduled Wastes) Regulations 2007	HIT-RE 500 V4, B

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

Control of Industrial Major Accident Hazards Regulations 1996		HIT-RE 500 V4, B
Prohibition of Use of Substance Order 1999		HIT-RE 500 V4, B
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000	Chemicals requiring medical surveillance	HIT-RE 500 V4, B
Chemical Weapons Convention Act	Not applicable	HIT-RE 500 V4, B
Corrosive and Explosive Substances and Offensive Weapons Act		HIT-RE 500 V4, B
Dangerous Drugs Act		HIT-RE 500 V4, B
Pesticides Act		HIT-RE 500 V4, B
Petroleum (Safety Measures) Act		HIT-RE 500 V4, B
Poisons Act 1952		HIT-RE 500 V4, B
Poisons (Psychotropic Substances) Regulations 1989		HIT-RE 500 V4, B

15.2. International agreements

No additional information available

SECTION 16: Other information

Version	1.1
Issue date	11/11/2022
Revision date	11/11/2022
Supersedes	01/09/2022

Abbreviations and acronyms	<p>ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</p> <p>ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>ATE - Acute Toxicity Estimate</p> <p>BCF - Bioconcentration factor</p> <p>CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</p> <p>DMEL - Derived Minimal Effect level</p> <p>DNEL - Derived-No Effect Level</p> <p>IATA - International Air Transport Association</p> <p>EC50 - Median effective concentration</p> <p>IMDG - International Maritime Dangerous Goods</p> <p>LC50 - Median lethal concentration</p> <p>LD50 - Median lethal dose</p> <p>LOAEL - Lowest Observed Adverse Effect Level</p> <p>NOAEC - No-Observed Adverse Effect Concentration</p> <p>NOAEL - No-Observed Adverse Effect Level</p> <p>NOEC - No-Observed Effect Concentration</p> <p>PBT - Persistent Bioaccumulative Toxic</p> <p>PNEC - Predicted No-Effect Concentration</p> <p>REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006</p> <p>RID - Regulations concerning the International Carriage of Dangerous Goods by Rail</p> <p>SDS - Safety Data Sheet</p> <p>vPvB - Very Persistent and Very Bioaccumulative</p>
Other information	None.

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

Full text of H-statements	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified
Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage or eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. Not classified	Flammable liquids Not classified
Skin Corr. 1A	Skin corrosion or irritation, Category 1A
Skin Corr. 1B	Skin corrosion or irritation, Category 1B
Skin Irrit. 2	Skin corrosion or irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H312	Harmful if 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
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS_MY_Hilti

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

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

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

Supersedes: 01/09/2022

Version: 2.0

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

1.1. Product identifier

Name HIT-RE 500 V4, A

1.2. Other means of identification

Product code BU Anchor

1.3. Recommended use of the chemical and restrictions on use

Recommended use For professional use only
Composite mortar component for fasteners in the construction industry

1.4. Supplier details

Supplier

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunsfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor
Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

Department issuing data specification sheet

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86916 Kaufering
Deutschland
T +49 8191 906876
anchor.hse@hilti.com

1.5. Emergency phone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+60 3 5628 7222
1800 880 985 toll free

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

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

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

2.2. Label elements

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

Hazard pictograms (GHS MY)



Signal word (GHS MY)

Danger

Contains

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

Hazard statements (GHS MY)

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

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

Precautionary statements (GHS MY)

P280 - Wear eye protection, protective clothing, protective gloves
 P262 - Do not get in eyes, on skin, or on clothing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water

2.3. Other hazards that do not result in classification

No additional information available

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

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3	25 – 40
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS-No.: 9003-36-5	10 – 25
Trimethylol ethane triglycidyl ether Polymer	CAS-No.: 68460-21-9	5 – 10
butanedioldiglycidyl ether	CAS-No.: 2425-79-8	5 – 10
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS-No.: 2530-83-8	2.5 – 5

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

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

4.2. Most important symptoms/effects, acute and delayed

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

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

Other medical advice or treatment	Treat symptomatically.
-----------------------------------	------------------------

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Physicochemical hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

5.3. Special protective equipment and precautions 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.
EAC code	2Z

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures	Spilled material may present a slipping hazard.
6.1.1. For non-emergency personnel	
Emergency procedures	Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and materials for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Storage 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 and personal protection

8.1. Control parameters

No additional information available

Exposure limit values for the other components

No additional information available

8.1.1 Biological monitoring

No additional information available

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

8.2. Appropriate engineering controls

Appropriate engineering controls No specific measures identified.

8.3. Individual protection measures, such as PPE

Materials for protective clothing:

Long sleeved protective clothing

Hand protection:

Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

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):



Environmental exposure controls

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

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	6.6
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable.
Explosive limits	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available

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According to ICOP 2014

Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Density	1.45 g/cm ³

SECTION 10: Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Direct sunlight, Extremely high or low temperatures
Incompatible materials	Strong acids, Strong bases
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced, Thermal decomposition generates :fume, Carbon monoxide, Carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)

butanedioldiglycidyl ether (2425-79-8)	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rabbit	1130 mg/kg (Rabbit)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)

Skin corrosion or irritation	Causes skin irritation. pH: 6.6
Serious eye damage or eye irritation	Causes serious eye damage.
Respiratory sensitization	Not classified
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
IARC group	3 - Not classifiable
Reproductive toxicity	Not classified
Specific target organ toxicity (STOT) – single exposure	Not classified
Specific target organ toxicity (STOT) – repeated exposure	Not classified
Aspiration hazard	Not classified

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Safety Data Sheet

According to ICOP 2014

Potential adverse human health effects and symptoms	No additional information available.
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SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - water	Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LC50 - Fish [1]	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
LC50 - Fish [2]	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	9.4 mg/l (EPA 660/3 - 75/009, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)
butanedioldiglycidyl ether (2425-79-8)	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Partition coefficient n-octanol/water (Log Pow)	-0.15
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LC50 - Fish [1]	55 mg/l (96 h; Cyprinus carpio; Young)
LC50 - Fish [2]	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 - Crustacea [1]	473 – 710 mg/l (48 h; Daphnia magna)
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)

12.2. Persistence and degradability

HIT-RE 500 V4, A	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Not rapidly degradable	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
Not rapidly degradable	
butanedioldiglycidyl ether (2425-79-8)	
Biochemical oxygen demand (BOD)	0.01982 g O ₂ /g substance

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According to ICOP 2014

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.15
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.4. Mobility in soil

HIT-RE 500 V4, A	
Mobility in soil	No additional information available
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Ecology - soil	No (test) data on mobility of the substance available.
butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.15
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transportation 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.			
14.1. UN number or ID number			
UN 3077	UN 3077	UN 3077	UN 3077

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

ADR	IMDG	IATA	RID
14.2. UN proper shipping name			
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)
Transport document description			
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
14.3. Transport hazard class(es)			
9	9	9	9
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

14.6. Special precautions for user

Overland transport

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

Tunnel restriction code (ADR)	-
EAC code	2Z

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Safety Data Sheet

According to ICOP 2014

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 hazardous chemical in question

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

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Safety Data Sheet

According to ICOP 2014

15.2. International agreements

No additional information available

SECTION 16: Other information

Version	2.0
Issue date	11/11/2022
Revision date	11/11/2022
Supersedes	01/09/2022

Indication of changes			
Section	Changed item	Change	Comments
2.1	Classification (GHS MY)	Modified	
2.2	Hazard pictograms (GHS MY)	Modified	
2.2	Hazard statements (GHS MY)	Modified	
3.2	Composition/information on ingredients	Modified	
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	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified

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Safety Data Sheet

According to ICOP 2014

Full text of H-statements	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage or eye irritation, Category 1
Eye Irrit. 2	Serious eye damage or eye irritation, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. Not classified	Flammable liquids Not classified
Skin Irrit. 2	Skin corrosion or irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed
H312	Harmful if in contact with skin
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
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS_MY_Hilti

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

HIT-RE 500 V4

Safety information for 2-Component-products

Issue date: 01/09/2022

Revision date: 01/09/2022

Version: 1.0

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

Storage Storage temperature : 5 - 25 °C

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

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

SECTION 3: Kit contents

Classification of the Product

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

Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Muta. 2	H341
Repr. 1B	H360
STOT SE 3	H335
Aquatic Chronic 2	H411

Label elements

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

Hazard pictograms (GHS MY)



GHS05

GHS07

GHS08

GHS09

Signal word (GHS MY)

Danger

Hazard statements (GHS MY)

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 MY)

P280 - Wear eye protection, protective clothing, protective gloves
P262 - Do not get in eyes, on skin, or on clothing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

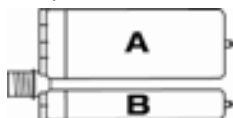
HIT-RE 500 V4

Kit SIS (Safety Information Sheet)

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

Additional information

2-component-foilpack, contains:
 Component A: Epoxy resin, Reactive diluent, inorganic filler
 Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2014)
HIT-RE 500 V4, B		1	pcs (pieces)	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360 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
 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

Kit SIS (Safety Information Sheet)

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 ICOP 2014

Issue date: 01/09/2022 Revision date: 1/9/2022

Supersedes:

Version: 1.0

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

1.1. Product identifier

Name	HIT-RE 500 V4, A
Product form	Mixture
Product code	BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	For professional use only Composite mortar component for fasteners in the construction industry
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1.4. Supplier's details

Supplier

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor - Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906876
anchor.hse@hilti.com

1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +60 3 5628 7222 1800 880 985 toll free
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SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

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

Skin Corr. 1C	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Muta. 2	H341
Repr. 1B	H360
Aquatic Chronic 2	H411

2.2. Label elements

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

Hazard pictograms (GHS MY)



GHS05

GHS07

GHS08

GHS09

Signal word (GHS MY)

Danger

Contains

2,2'-[[1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol; butanedioldiglycidyl ether ; 1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane; [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

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

2.3. Other hazards not contributing to the classification

No additional information available

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

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	(CAS-No.) 1675-54-3	25 – 40
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	(CAS-No.) 9003-36-5	10 – 25
butanedioldiglycidyl ether	(CAS-No.) 2425-79-8	5 – 10
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	(CAS-No.) 30499-70-8	5 – 10
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	(CAS-No.) 2530-83-8	2.5 – 5

SECTION 4: First aid measures

4.1. Description of 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 and effects, both acute and delayed

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

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	Treat symptomatically.
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HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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.
EAC code 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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.
Storage temperature 5 – 25 °C

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

Exposure limit values for the other components

Additional information

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

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls

No specific measures identified.

8.4. Personal protective equipment

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):



Environmental exposure controls

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

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	No data available
Melting point, Freezing point	No data available
Boiling point	No data available
Flash point	No data available

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

Evaporation rate	No data available
Flammability	Non flammable.
Explosive limits	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	1.45 g/cm ³
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Density	1.45 g/cm ³

SECTION 10: Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Direct sunlight, Extremely high or low temperatures
Incompatible materials	Strong acids, Strong bases
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced, Thermal decomposition generates :fume, Carbon monoxide, Carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)
butanedioldiglycidyl ether (2425-79-8)	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rabbit	1130 mg/kg (Rabbit)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)

Skin corrosion or irritation	Causes severe skin burns.
Serious eye damage or eye irritation	Causes serious eye damage.

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity (STOT) – single exposure	Not classified
Specific target organ toxicity (STOT) – repeated exposure	Not classified
Aspiration hazard	Not classified
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)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LC50 - Fish [1]	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
LC50 - Fish [2]	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	9.4 mg/l (EPA 660/3 - 75/009, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)
butanedioldiglycidyl ether (2425-79-8)	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Partition coefficient n-octanol/water (Log Pow)	-0.15
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LC50 - Fish [1]	55 mg/l (96 h; Cyprinus carpio; Young)
LC50 - Fish [2]	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 - Crustacea [1]	473 – 710 mg/l (48 h; Daphnia magna)
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)

12.2. Persistence and degradability

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

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Not rapidly degradable	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
Not rapidly degradable	
butanedioldiglycidyl ether (2425-79-8)	
Biochemical oxygen demand (BOD)	0.01982 g O ₂ /g substance
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (30499-70-8)	
Not rapidly degradable	

12.3. Bioaccumulative potential

HIT-RE 500 V4, A	
Bioaccumulative potential	Not established.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.15
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.4. Mobility in soil

HIT-RE 500 V4, A	
Mobility in soil	No additional information available
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Ecology - soil	No (test)data on mobility of the substance available.
butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.15
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 1759	UN 1759	UN 1759	UN 1759
14.2. UN proper shipping name			
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)
Transport document description			
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/ENVIRONMENTAL LY 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
14.3. Transport hazard class(es)			
8	8	8	8
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
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
Orange plates	

Tunnel restriction code (ADR)	E
EAC code	2X

Transport by sea

Special provisions (IMDG)	223, 274
Packing instructions (IMDG)	P002, LP02
EmS-No. (Fire)	F-A

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

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

14.8. Hazchem or Emergency Action Code

EAC code 2X.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Version 1.0
Issue date 1/9/2022
Revision date 01/09/2022

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

Abbreviations and acronyms

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE - Acute Toxicity Estimate
 BCF - Bioconcentration factor
 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
 DMEL - Derived Minimal Effect level
 DNEL - Derived-No Effect Level
 IATA - International Air Transport Association
 EC50 - Median effective concentration
 IMDG - International Maritime Dangerous Goods
 LC50 - Median lethal concentration
 LD50 - Median lethal dose
 LOAEL - Lowest Observed Adverse Effect Level
 NOAEC - No-Observed Adverse Effect Concentration
 NOAEL - No-Observed Adverse Effect Level
 NOEC - No-Observed Effect Concentration
 PBT - Persistent Bioaccumulative Toxic
 PNEC - Predicted No-Effect Concentration
 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
 SDS - Safety Data Sheet
 vPvB - Very Persistent and Very Bioaccumulative
 None.

Other information

Full text of H-statements:

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

HIT-RE 500 V4, A

Safety Data Sheet

According to ICOP 2014

H360F	May damage fertility
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS_MY_Hilti

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

HIT-RE 500 V4, B

Safety Data Sheet

According to ICOP 2014

Issue date: 01/09/2022 Revision date: 1/9/2022

Supersedes:

Version: 1.0

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

1.1. Product identifier

Name	HIT-RE 500 V4, B
Product form	Mixture
Product code	Bu Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	For professional use only Composite mortar component for fasteners in the construction industry
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1.4. Supplier's details

Supplier

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor - Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906876
anchor.hse@hilti.com

1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +60 3 5628 7222 1800 880 985 toll free
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SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

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

Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Chronic 3	H412

2.2. Label elements

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

Hazard pictograms (GHS MY)



GHS05

GHS07

Signal word (GHS MY)

Danger

Contains

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

Hazard statements (GHS MY)

H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction

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Precautionary statements (GHS MY)

H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects
P280 - Wear eye protection, protective clothing, protective gloves
P262 - Do not get in eyes, on skin, or on clothing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P302+P352 - IF ON SKIN: Wash with plenty of soap and water

2.3. Other hazards not contributing to the classification

No additional information available

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

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
2-methyl-1,5-pentanediamine	(CAS-No.) 15520-10-2	25 – 35
Phenol, styrenated	(CAS-No.) 61788-44-1	5 – 10
m-Xylylenediamine	(CAS-No.) 1477-55-0	4 – <8
2,4,6-tris(dimethylaminomethyl)phenol	(CAS-No.) 90-72-2	1 – 3
3-Aminopropyltriethoxysilan	(CAS-No.) 919-30-2	1 – 3

SECTION 4: First aid measures

4.1. Description of first aid measures

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

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	Treat symptomatically.
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According to ICOP 2014

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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.
EAC code	2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Spilled material may present a slipping hazard.
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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 material for containment and cleaning up

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

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

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Safety Data Sheet

According to ICOP 2014

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HIT-RE 500 V4, B	
Malaysia - Occupational Exposure Limits	
Local name	m-Xilena α,α'-diamina # m-Xylene α,α'-diamine
PEL (OEL C) [ppm]	0.1 ppm
Remark (MY)	(kulit # skin)
m-Xylylenediamine (1477-55-0)	
Malaysia - Occupational Exposure Limits	
Local name	m-Xilena α,α'-diamina # m-Xylene α,α'-diamine
PEL (OEL C) [ppm]	0.1 ppm
Remark (MY)	(kulit # skin)

Exposure limit values for the other components

Additional information

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

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station.

8.4. Personal protective equipment

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):



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.

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Safety Data Sheet

According to ICOP 2014

SECTION 9: Physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	red
Odour	Amine-like
Odour threshold	No data available
pH	No data available
Melting point, Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability	Non flammable.
Explosive limits	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	1.31 g/cm ³
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Density	1.31 g/cm ³

SECTION 10: Stability and reactivity

Reactivity	Corrosive vapours
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Direct sunlight, Extremely high or low temperatures
Incompatible materials	Strong acids, Strong bases
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced, Thermal decomposition generates :fume, Carbon monoxide, Carbon dioxide, Corrosive vapours

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

2-methyl-1,5-pentanediamine (15520-10-2)	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 Inhalation - Rat	4.9 mg/l
Phenol, styrenated (61788-44-1)	
LD50 oral rat	> 2500 mg/kg

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According to ICOP 2014

Phenol, styrenated (61788-44-1)	
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158.31 mg/l/4h
m-Xylylenediamine (1477-55-0)	
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
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	2169 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)
3-Aminopropyltriethoxysilan (919-30-2)	
LD50 oral rat	1.57 – 2.83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 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 or irritation	Causes severe skin burns.
Serious eye damage or eye irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (STOT) – single exposure	May cause respiratory irritation.
Specific target organ toxicity (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)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Harmful to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)
Phenol, styrenated (61788-44-1)	
LC50 - Fish [1]	5.6 mg/l
LC50 - Other aquatic organisms [1]	9.7 mg/l

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Phenol, styrenated (61788-44-1)	
EC50 - Crustacea [1]	1.44 mg/l
EC50 72h - Algae [1]	0.326 mg/l (Algae, Literature study)
NOEC (acute)	3.2 mg/l
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Threshold limit - Algae [1]	0.326 mg/l (72 h; Algae)
Threshold limit - Algae [2]	0.14 mg/l (72 h; Algae)
m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l
LC50 - Other aquatic organisms [1]	20.3 ppb
EC50 - Crustacea [1]	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LC50 - Fish [1]	> 100 mg/l (96 h; Pisces; Nominal concentration)
LC50 - Fish [2]	70.9 mg/l (96 h; Pisces)
EC50 - Other aquatic organisms [1]	84 mg/l (72 h; Desmodesmus subspicatus; growth rate; ECHA)
ErC50 algae	84 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA)
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Threshold limit - Algae [1]	10 - 100, Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
3-Aminopropyltriethoxysilan (919-30-2)	
LC50 - Fish [1]	> 934 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	331 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 1000 mg/l (EU Method C.3, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)

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 ₂ /g substance
Chemical oxygen demand (COD)	0.004827 g O ₂ /g substance
m-Xylylenediamine (1477-55-0)	
Not rapidly degradable	

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According to ICOP 2014

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 Pow)	0.27 (Estimated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

Phenol, styrenated (61788-44-1)	
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Bioaccumulative potential	Bioaccumulative potential.

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

3-Aminopropyltriethoxysilan (919-30-2)	
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

HIT-RE 500 V4, B	
Mobility in soil	No additional information available

2-methyl-1,5-pentanediamine (15520-10-2)	
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Phenol, styrenated (61788-44-1)	
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.145 (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)	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

3-Aminopropyltriethoxysilan (919-30-2)	
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)

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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





SECTION 13: Disposal information

13.1. Disposal methods

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

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Safety Data Sheet

According to ICOP 2014

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
EAC code	2X

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

14.8. Hazchem or Emergency Action Code

EAC code	2X.
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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation		Component/ Mixture
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993	Not applicable	HIT-RE 500 V4, B
Environmental Quality (Industrial Effluent) Regulations 2009		HIT-RE 500 V4, B
Environmental Quality (Scheduled Wastes) Regulations 2007		HIT-RE 500 V4, B
Control of Industrial Major Accident Hazards Regulations 1996		HIT-RE 500 V4, B

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Prohibition of Use of Substance Order 1999		HIT-RE 500 V4, B
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000	Chemicals requiring medical surveillance	HIT-RE 500 V4, B
Chemical Weapons Convention Act	Not applicable	HIT-RE 500 V4, B
Corrosive and Explosive Substances and Offensive Weapons Act		HIT-RE 500 V4, B
Dangerous Drugs Act		HIT-RE 500 V4, B
Pesticides Act		HIT-RE 500 V4, B
Petroleum (Safety Measures) Act		HIT-RE 500 V4, B
Poisons Act 1952		HIT-RE 500 V4, B
Poisons (Psychotropic Substances) Regulations 1989		HIT-RE 500 V4, B

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Version	1.0
Issue date	1/9/2022
Revision date	01/09/2022

Abbreviations and acronyms	<p>ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</p> <p>ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>ATE - Acute Toxicity Estimate</p> <p>BCF - Bioconcentration factor</p> <p>CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</p> <p>DMEL - Derived Minimal Effect level</p> <p>DNEL - Derived-No Effect Level</p> <p>IATA - International Air Transport Association</p> <p>EC50 - Median effective concentration</p> <p>IMDG - International Maritime Dangerous Goods</p> <p>LC50 - Median lethal concentration</p> <p>LD50 - Median lethal dose</p> <p>LOAEL - Lowest Observed Adverse Effect Level</p> <p>NOAEC - No-Observed Adverse Effect Concentration</p> <p>NOAEL - No-Observed Adverse Effect Level</p> <p>NOEC - No-Observed Effect Concentration</p> <p>PBT - Persistent Bioaccumulative Toxic</p> <p>PNEC - Predicted No-Effect Concentration</p> <p>REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006</p> <p>RID - Regulations concerning the International Carriage of Dangerous Goods by Rail</p> <p>SDS - Safety Data Sheet</p> <p>vPvB - Very Persistent and Very Bioaccumulative</p>
Other information	None.

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified

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Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage or eye irritation, Category 1
Flam. Liq. Not classified	Flammable liquids Not classified
Skin Corr. 1A	Skin corrosion or irritation, Category 1A
Skin Corr. 1B	Skin corrosion or irritation, Category 1B
Skin Corr. 1C	Skin corrosion or irritation, Category 1C
Skin Irrit. 2	Skin corrosion or irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H312	Harmful if 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
H332	Harmful if inhaled
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

SDS_MY_Hilti

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