HIT-RE 500 V3

en	This safety data sheet file is issued for the following production lots: 1. Version 2.0 is valid for HIT-RE 500 V3 with a maximum expiration date of 12/2024 (see foil pack manifold) 2. Version 3.0 is valid for HIT-RE 500 V3 with a minimum expiration date of 01/2025 (see the foil pack manifold)
de	Diese Sicherheitsdatenblatt-Datei betrifft die folgenden Fertigungslose: 1. Version 2.0 ist gültig für HIT-RE 500 V3 mit einem Haltbarkeitsdatum bis 12/2024 (siehe Verbindungsteil) 2. Version 3.0 ist gültig für HIT-RE 500 V3 mit einem Haltbarkeitsdatum ab 01/2025 (siehe Verbindungsteil)
nl	Dit veiligheidsinformatiebladbestand wordt afgegeven voor de volgende productie-lots: 1. Versie 2.0 is geldig voor HIT-RE 500 V3 met een maximale houdbaarheidsdatum tot 12/2024 (zie foliepak verdeler) 2. Versie 3.0 is geldig voor HIT-RE 500 V3 met een minimale houdbaarheidsdatum tot 01/2025 (zie foliepak verdeler)
fr	Ce fichier de données de sécurité est délivré pour les lots de production suivants : 1. La version 2.0 est valide pour HIT-RE 500 V3 avec une date d'expiration maximale de 12/2024 (voir le raccord de cartouche souple) 2. La version 3.0 est valide pour HIT-RE 500 V3 avec une date d'expiration maximale de 01/2025 (voir le raccord de cartouche souple)
da	Denne sikkerhedsdatabladsfil er udgivet for følgende produktions lots: 1. Version 2.0 er gældende for HIT-RE 500 V3 med en maksimal udløbsdato d. 12/2024 (se foliepakkens manifold) 2. Version 3.0 er gældende for HIT-RE 500 V3 med en mindste udløbsdato d. 01/2025 (se foliepakkens manifold)
sv	Denna säkerhetsdatabladsfil har utfärdats för följande tillverkningspartier: 1. Version 2.0 är giltig för HIT-RE 500 V3 med ett sista giltighetsdatum den 12/2024 (se folieförpackningens grenrör) 2. Version 3.0 är giltig för HIT-RE 500 V3 med ett första giltighetsdatum den 01/2025 (se folieförpackningens grenrör)
fi	Tämä käyttöturvallisuustiedote koskee seuraavia tuotantoeriä: 1. Versio 2.0 koskee HIT-RE 500 V3 -tuotetta, jonka viimeinen käyttöpäivämäärä on 12/2024 tai sitä ennen (ks. foliopakkauksen taite) 2. Versio 3.0 koskee HIT-RE 500 V3 -tuotetta, jonka viimeinen käyttöpäivämäärä on 01/2025 tai sen jälkeen (ks. foliopakkauksen taite)
hu	Ezt a biztonsági adatlapot a következő gyártási tételekhez bocsátják ki: 1. Az 2.0 változat legfeljebb 2024/12 lejárati dátummal érvényes a HIT-RE 500 V3-re (lásd a fóliacsomag sokszorosított iratát) 2. Az 3.0 változat legalább 2025/01 lejárati dátummal érvényes a HIT-RE 500 V3-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 2.0 válida para HIT-RE 500 V3 con una fecha de caducidad máxima de 12/2024 (consulte el colector de láminas) 2. Versión 3.0 válida para HIT-RE 500 V3 con una fecha de caducidad mínima de 01/2025 (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 2.0 é válida para a HIT-RE 500 V3 com um prazo máximo de validade até 12/2024 (ver as diversas embalagens) 2. A versão 3.0 é válida para a HIT-RE 500 V3 com um prazo mínimo de validade até 01/2025 (ver as diversas embalagens)
it	Questo file della scheda tecnica di sicurezza è rilasciato per i seguenti lotti di produzione: 1. La versione 2.0 è valida per HIT-RE 500 V3 con data di scadenza massima 12/2024 (vedere la giunzione della confezione) 2. La versione 3.0 è valida per HIT-RE 500 V3 con data di scadenza minima 01/2025 (vedere la giunzione della confezione)
pl	Ten plik arkusza danych bezpieczeństwa jest wydany dla następujących części produkcyjnych: 1. Wersja 2.0 obowiązuje w przypadku HIT-RE 500 V3 z maksymalnym dniem rozpoczęcia pracy 12/2024 (patrz opakowanie foliowe) 2. Wersja 3.0 obowiązuje w przypadku HIT-RE 500 V3 z minimalnym dniem rozpoczęcia pracy 01/2025 (patrz opakowanie foliowe)
ru	Этот файл сертификата безопасности предоставлен для следующих партий продукции: 1. Версия 2.0 действительна для HIT-RE 500 V3 с максимальным сроком годности до 12.2024 г. (см. присоединительную часть на капсуле) 2. Версия 3.0 действительна HIT-RE 500 V3 с минимальным сроком годности до 01.2025 г. (см. присоединительную часть на капсуле)
el	Το παρόν δελτίο δεδομένων ασφάλειας εκδίδεται για τις ακόλουθες παρτίδες παραγωγής: 1. Η έκδοση 2.0 ισχύει για το HIT-RE 500 V3 με μέγιστη ημερομηνία λήξης τον 12/2024 (βλέπε διανομέα συσκευασίας μεμβράνης) 2. Η έκδοση 3.0 ισχύει για το HIT-RE 500 V3 με ελάχιστη ημερομηνία λήξης τον 01/2025 (βλέπε τον διανομέα της συσκευασίας μεμβράνης)
cs	Tento soubor s bezpečnostním listem je vystaven pro tyto výrobní závody 1. Verze 2.0 je platná pro HIT-RE 500 V3 s maximálním datem expirace 12/2024 (viz fólie balení) 2. Verze 3.0 je platná pro HIT-RE 500 V3 s minimálním datem expirace 01/2025 (viz fólie balení)
bg	Този информационен лист за безопасност се публикува за следните производствени партиди: 1. Версия 2.0 е валидна за HIT-RE 500 V3 с максимален срок на валидност до 12.2024 г. (вж. фолийна опаковка за колектор) 2. Версия 3.0 е валидна за HIT-RE 500 V3 с минимален срок на изтичане 01.2025 г. (вж. фолийна опаковка за колектор)
lv	Šo drošības datu lapa ir izsniegta šādām ražojumu partijām: 1. Versija 2.0 ir derīga izstrādājumam HIT-RE 500 V3, kura maksimālais derīguma termiņš ir 2024. gada maijs (skatīt folija iepakojuma kolektoru) 2. Versija 3.0 ir derīga izstrādājumam HIT-RE 500 V3, kura minimālais derīguma termiņš ir 2025. gada jūnijs (skatīt folija iepakojuma kolektoru)
lt	Šis saugos duomenų lapo failas išduodamas šioms gamybos partijoms: 1. 2.0 versija galioja HIT-RE 500 V3, kurios maksimali galiojimo data – 2024-12 (žr. folinių pakuočių rinkinį) 2. 3.0 versija galioja HIT-RE 500 V3, kurios minimali galiojimo data – 2025-01 (žr. folinių pakuočių rinkinį)
sk	Tento súbor bezpečnostných údajov sa vydáva pre tieto výrobné šarže: 1. Verzia 2.0 je platná pre HIT-RE 500 V3 s maximálnym dátumom exspirácie 12/2024 (pozrite si údaj na fólii balenia) 2. Verzia 3.0 je platná pre HIT-RE 500 V3 s minimálnym dátumom exspirácie 01/2025 (pozrite si údaj na fólii balenia)
sl	Datoteka z varnostnim listom je izdana za naslednje proizvodne serije: 1. Različica 2.0 je veljavna za izdelek HIT-RE 500 V3 z maksimalnim datumom poteka veljavnosti: 12/2024 (glejte pakiranje) 2. Različica 3.0 je veljavna za izdelek HIT-RE 500 V3 z minimalnim datumom poteka veljavnosti: 01/2025 (glejte pakiranje)

HIT-RE 500 V3

et	See ohutuskaardi fail on välja antud järgmistele tootepartiidele: 1. Versioon 2.0 kehtib tootele HIT-RE 500 V3 viimase säilimiskuupäevaga 12/2024 (vt fooliumpakendi hargnemiskohta) 2. Versioon 3.0 kehtib tootele HIT-RE 500 V3 esimese säilimiskuupäevaga 01/2025 (vt fooliumpakendi hargnemiskohta)
ro	Acest fișier cu date tehnice de securitate este emis pentru următoarele locuri de producție: 1. Versiunea 2.0 este valabilă pentru HIT-RE 500 V3 cu data maximă de expirare 12/2024 (a se vedea racordul pentru cartușe din folie) 2. Versiunea 3.0 este valabilă pentru HIT-RE 500 V3 cu data minimă de expirare 01/2025 (a se vedea racordul pentru cartușe din folie)
hr	Ovaj sigurnosno-tehnički list izdaje se za sljedeće proizvodne serije: 1. Verzija 2.0 vrijedi za HIT-RE 500 V3 s maksimalnim rokom trajanja do 12/2024 (vidjeti razvodnik iz folije) 2. Verzija 3.0 vrijedi za HIT-RE 500 V3 s minimalnim rokom trajanja do 01/2025 (vidjeti razvodnik iz folije)
tr	Bu güvenlik bilgi formu dosyası aşağıdaki üretim partileri için hazırlanmıştır: 1. Versiyon 2.0, maksimum son kullanma tarihi 12/2024 olan HIT-RE 500 V3 için geçerlidir (bkz. folyo paketi manifoldu) 2. Versiyon 3.0, inimumm son kullanma tarihi 01/2025 olan HIT-RE 500 V3 için geçerlidir (bkz. folyo paketi manifoldu)
uk	Цей файл сертифіката безпеки надано для наступних партій продукції: 1. Версія 2.0 дійсна для HIT-RE 500 V3 з максимальним терміном придатності до 12.2024 р. (див. приєднувальну частину на капсулі) 2. Версія 3.0 дійсна для HIT-RE 500 V3 з мінімальним терміном придатності до 01.2025 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** 2.0 对 HIT-RE 500 V3 **有效，最**长失效日期为 2024 **年** 12 **月**（参见箔包装歧管） 2. **版本** 3.0 对 HIT-RE 500 V3 **有效，最短失效日期**为 2025 **年** 1 **月**（参见箔包装歧管）
ar	يتم إصدار ملف صحيفة بيانات السلامة لتشغيلات الإنتاج التالية: 1. الإصدار 2.0 صالح لـ HIT-RE 500 V3 بحد أقصى لتاريخ انتهاء الصلاحية هو 2024/12 (انظر العبوة المصنوعة من رقائق الألومنيوم) 2. الإصدار 3.0 صالح لـ HIT-RE 500 V3 على الأقل لتاريخ انتهاء الصلاحية هو 2025/1 (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 2.0 は、有効期限が最大 2024 年 12 月までの HIT-RE 500 V3 に対して有効です (フォイルパック連結部に表示) 2. バージョン 3.0 は、有効期限が 2025 年 1 月以降の HIT-RE 500 V3 に対して有効です (フォイルパック連結部に表示)
sr	Datoteka bezbednosnog lista se izdaje za sledeće proizvodne serije: 1. Verzija 2.0 je dostupna za HIT-RE 500 V3 sa maksimalnim datumom isteka 12/2024 (pogledajte ivicu pakovanja od folije) 2. Verzija 3.0 je dostupna za HIT-RE 500 V3 sa minimalnim datumom isteka 01/2025 (pogledajte ivicu pakovanja od folije)
ms	Fail helaian data keselamatan ini dikeluarkan untuk lot pengeluaran yang berikut: 1. Versi 2.0 adalah sah untuk HIT-RE 500 V3 dengan tarikh tamat tempoh maksimum pada 12/2024 (lihat manifold pek kerajang) 2. Versi 3.0 adalah sah untuk HIT-RE 500 V3 dengan tarikh tamat tempoh minimum pada 01/2025 (lihat manifold pek kerajang)
ko	본 안전보건자료는 다음 제품 로트에 대해 발급되었습니다. 1. 버전 2.0(은)는 HIT-RE 500 V3에 대해 유효하며, 최대 만료 기한은 2024년 12월입니다(호일 팩 매니폴드 참조) 2. 버전 3.0(은)는 HIT-RE 500 V3에 대해 유효하며, 최소 만료 기한은 2025년 1월입니다(호일 팩 매니폴드 참조)
id	File lembar data keselamatan ini diterbitkan untuk lot produksi berikut: 1. Versi 2.0 berlaku untuk HIT-RE 500 V3 dengan tanggal kedaluwarsa maksimum 12/2024 (lihat foil pack manifold) 2. Versi 3.0 berlaku untuk HIT-RE 500 V3 dengan tanggal kedaluwarsa minimum 01/2025 (lihat foil pack manifold)
he	קובץ גיליון נתוני בטיחות זה מונפק עבור מגרשי הייצור הבאים: 1. גרסה 2.0 תקפה ל-HIT-RE 500 V3 עם תאריך תפוגה מקסימלי של 12/2024 (ראה יריעת foil pack) 2. גרסה 3.0 תקפה ל-HIT-RE 500 V3 עם תאריך תפוגה מינימלי של 01/2025 (ראה יריעת foil pack)
th	แผ่นข้อมูลด้านความปลอดภัยนี้ที่ได้จัดทำสำหรับล็อตการผลิตดังต่อไปนี้: 1. เวอร์ชั่น 2.0 ใช้ได้กับ HIT-RE 500 V3 ที่มีวันหมดอายุไม่เกิน 12/2024 (โปรดดูแผ่นพับห่อฟอยล์) 2. เวอร์ชั่น 3.0 ใช้ได้กับ HIT-RE 500 V3 ที่มีวันหมดอายุขั้นต่ำ 01/2025 (โปรดดูแผ่นพับห่อฟอยล์)
vi	Tệp bảng dữ liệu an toàn này được phát hành cho các lô sản xuất sau: 1. Phiên bản 2.0 hợp lệ cho HIT-RE 500 V3 với ngày hết hạn tối đa là 12/2024 (xem ống keo cấy thép) 2. Phiên bản 3.0 hợp lệ cho HIT-RE 500 V3 với ngày hết hạn tối thiểu là 01/2025 (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. 2.0 **版適用於** HIT-RE 500 V3，**最長到期日** 12/2024 (**請見鋁箔包打字紙**) 2. 3.0 **版適用於** HIT-RE 500 V3，**最短到期日** 01/2025 (**請見鋁箔包打字紙**)
kk	Бұл қауіпсіздік паспорты мына өндірістік партиялар үшін шығарылады: 1. 2.0 нұсқасы жарамдылық мерзімі көп уақытты (12/2024) қамтитын HIT-RE 500 V3 үшін жарамды (жұқалтыр қаптаманы қараңыз) 2. 3.0 нұсқасы жарамдылық мерзімі аз уақытты (01/2025) қамтитын HIT-RE 500 V3 үшін жарамды (жұқалтыр қаптаманы қараңыз)

HIT-RE 500 V3

Safety Data Sheet

Compiled according to GB/T 16483, GB/T 17519

Version:3.0

Revision date: 2022/11/15 Issue date: 2022/11/15 Supersedes: 2022/04/08

SECTION 1 Chemical product and company identification

Product identifier

Product name	HIT-RE 500 V3
Product code	BU Anchor
Chemical Chinese name	锚固嵌缝剂 HIT-RE 500 V3
Chemical English name	Injection Mortar HIT-RE 500 V3
	
Recommended use of the chemical	For professional use only Composite mortar component for fasteners in the construction industry

Details of the supplier of the safety data sheet

Supplier
Hilti (China) Ltd.
8F, Tower 2, No.58 Yao Yuan Rd.
Pudong District
200126 Shanghai - China
T +86 21 6016 7316

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

Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum - 24h Service +41 44 251 51 51 (international)

Country	Organisation/Company	Address	Emergency number
China	中国境内化学事故应急咨询电话 / chemical accident emergency consultation service hotline (24/7)		+86 532 83889090

SECTION 2 Hazards identification

Emergency overview

HIT-RE 500 V3

Safety Data Sheet

Compiled according to GB/T 16483, GB/T 17519

Thixotropic paste. component A: grey, component B: Red. Amine-like. Non flammable. Corrosive vapours. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Use personal protective equipment as required. Equip cleanup crew with proper protection. Ventilate area

GHS hazard classification

Health hazards	Acute toxicity (Oral), Category 5
	Skin corrosion/irritation, Category 1B
	Serious eye damage/eye irritation, Category 1
	Skin sensitization, Category 1
	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment - Acute hazard, Category 2
	Hazardous to the aquatic environment - Chronic hazard, Category 2

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

Label elements

Hazard pictograms (GHS CN)

Signal word (GHS CN): Danger.

Hazard statements (GHS CN):

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS CN)

Prevention measures:

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

P280 - Wear eye protection, protective clothing, protective gloves.

Incident response:

P302+P352 - IF ON SKIN: Wash with plenty of water.

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

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Safe storage:

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

Disposal:

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Physical and chemical hazards

No additional information available

Health hazards

Causes severe skin burns and eye damage

May cause an allergic skin reaction

May cause respiratory irritation

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.

Environmental hazards

Toxic to aquatic life with long lasting effects

Other hazards

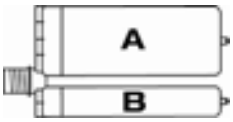
No additional information available

SECTION 3 Composition/information on ingredients

2-component-foilpack, contains:

Component A: Epoxy resin, Reactive diluent, inorganic filler

Component B: Amine hardener, inorganic filler



A		
Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	25 - 40	1675-54-3
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	10 - 20	9003-36-5
Trimethylol ethane triglycidyl ether Polymer	5 - 10	68460-21-9
butanedioldiglycidyl ether	5 - 10	2425-79-8
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2.5 - 5	2530-83-8

B		
Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
2-methyl-1,5-pentanediamine	25 - 35	15520-10-2
Phenol, styrenated	5 - 10	61788-44-1
m-Xylylenediamine	5 - <8	1477-55-0
2,4,6-tris(dimethylaminomethyl)phenol	1 - 2.5	90-72-2
3-Aminopropyltriethoxysilan	1 - 2.5	919-30-2

SECTION 4 First-aid measures

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.

Most important symptoms/effects

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.

Advices for first aid responders

Avoid all unnecessary exposure.

Notes for the doctor

Other medical advice or treatment	Treat symptomatically

SECTION 5 Fire-fighting measures

Extinguishing media

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

Specific hazards

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

Advice for firefighters and protective 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

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Heat and ignition sources	Keep away from heat and direct sunlight
General measures	Spilled material may present a slipping hazard
Personal Precautions, Protective Equipment and Emergency Procedures	No additional information available

For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel

For emergency responders

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

Environmental precautions

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

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

Methods and material for containment and cleaning up

Methods for cleaning	No additional information available
For containment	Collect spillage.

Prevention measures for secondary accidents

Prevention Measures for Secondary Accidents	No additional information available
Other information	Dispose of materials or solid residues at an authorized site

SECTION 7 Handling and storage

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.
Local and general ventilation	No additional information available

Storage

Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Technical measures	Comply with applicable regulations
Material used in packaging/containers	No additional information available
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight

SECTION 8 Exposure controls / Personal protection equipment

Occupational exposure limits

No additional information available

Biological limit values

No additional information available

Monitoring methods

No additional information available

Appropriate engineering controls

Ensure good ventilation of the work station

Personal protective equipment

Personal protective equipment	Safety glasses Gloves Protective clothing Avoid all unnecessary exposure
Environmental exposure controls	Avoid release to the environment.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.
Other information	Do not eat, drink or smoke during use
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.

Skin and body protection: No additional information available

Respiratory protection: No additional information available

Personal protective equipment symbol(s)

SECTION 9 Physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste
Colour	component A: grey, component B: Red
Odour	characteristic,Amine-like
pH	11,5 (B)
Melting point	No data available
Freezing point	Not applicable
Boiling point	Not applicable

Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20° C	No data available
Density	1.31 - 1.45 g/cm³
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, dynamic	45 - 70 Pa•s
Lower explosion limit	No data available
Upper explosion limit	No data available
Radioactive	No

SECTION 10 Stability and reactivity

Chemical stability	Stable under normal conditions
Reactivity	Corrosive vapours
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
Other properties	No additional information available

SECTION 11 Toxicological information

Acute toxicity

Acute toxicity (oral)	May be harmful if swallowed.
Acute toxicity (dermal)	No data available
Acute toxicity (inhalation)	No data available

HIT-RE 500 V3

ATE CN (oral) 2500 mg/kg bodyweight

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)
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))
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
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
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

Skin corrosion/irritation

Skin corrosion/irritation	Causes severe skin burns.

HIT-RE 500 V3

pH	11,5 (B)

Serious eye damage/eye irritation

Serious eye damage/irritation	Causes serious eye damage.

HIT-RE 500 V3

pH	11,5 (B)

Respiratory or skin sensitisation

Respiratory or skin sensitisation	May cause an allergic skin reaction.

Germ cell mutagenicity

Germ cell mutagenicity	No data available

Carcinogenicity

Carcinogenicity	No data available

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
IARC group	3 - Not classifiable

Reproductive toxicity

Reproductive toxicity	No data available

STOT - single exposure

STOT-single exposure	May cause respiratory irritation.

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

STOT - repeated exposure

STOT-repeated exposure	No data available

Aspiration hazard

Aspiration hazard	No data available

HIT-RE 500 V3

Density	1.31 - 1.45 g/cm³

SECTION 12 Ecological information

Ecotoxicity

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

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)
Partition coefficient n-octanol/water (Log Pow)	⩾ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
butanedioldiglycidyl ether (2425-79-8)	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
Partition coefficient n-octanol/water (Log Pow)	-0.15
[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)
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)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
3-Aminopropyltriethoxysilan (919-30-2)	
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)
m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l
EC50 - Crustacea [1]	15 mg/l

NOEC chronic crustacea	4.7 mg/l
Phenol, styrenated (61788-44-1)	
LC50 - Fish [1]	5.6 mg/l
EC50 - Crustacea [1]	1.44 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
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)
Partition coefficient n-octanol/water (Log Pow)	6.24 - 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Persistence and degradability

HIT-RE 500 V3

Persistence and degradability Not established

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Not rapidly degradable	Yes
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
Not rapidly degradable	Yes
butanedioldiglycidyl ether (2425-79-8)	
Biochemical oxygen demand (BOD)	0.01982 g O_2/g substance
3-Aminopropyltriethoxysilan (919-30-2)	
Persistence and degradability	Not readily biodegradable in water
m-Xylylenediamine (1477-55-0)	
Not rapidly degradable	Yes
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

Bioaccumulative potential

HIT-RE 500 V3

Bioaccumulative potential Not established

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
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)

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

3-Aminopropyltriethoxysilan (919-30-2)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500)
BCF - Fish [1]	See section 12.1 on ecotoxicology3.4 (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)

Phenol, styrenated (61788-44-1)	
Bioaccumulative potential	Bioaccumulative potential
BCF - Fish [1]	See section 12.1 on ecotoxicology3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	See section 12.1 on ecotoxicology3246 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)

2-methyl-1,5-pentanediamine (15520-10-2)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Mobility in soil

HIT-RE 500 V3

Bioaccumulative potential Not established

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500)
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)

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

3-Aminopropyltriethoxysilan (919-30-2)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Ecology - soil	No (test)data on mobility of the substance available.

Phenol, styrenated (61788-44-1)	
Bioaccumulative potential	Bioaccumulative potential
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-methyl-1,5-pentanediamine (15520-10-2)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Other adverse effects

Classification procedure (Ozone): No data available

Other information: Avoid release to the environment.

SECTION 13 Disposal considerations

Waste treatment methods: No additional information available

Contaminated container and packaging: No additional information available

Additional information: No additional information available

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

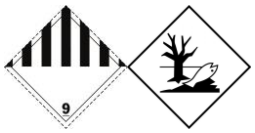
Ecology - waste materials	Avoid release to the environment.
Regional legislation (waste)	Disposal must be done according to official regulations

SECTION 14 Transport information

A:

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
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

ADR	IMDG	IATA	RID
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			

B:

In accordance with IMDG / IATA

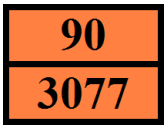
ADR	IMDG	IATA	RID
14.1. UN number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, 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
			

ADR	IMDG	IATA	RID
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			

14.6. Special precautions for user

A:

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)	-

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

B:

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

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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15 Regulatory information

New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)

Inventory of Existing Chemical Substances in China (IECSC)	Listed

Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)

Catalogue of Hazardous Chemicals (2015)	Not listed

Identification of major hazard installations for dangerous chemicals (GB 18218)	Not listed
Catalogue of Severely Restricted Toxic Chemicals	Not listed
Catalogue of Explosive Precursor Dangerous Chemicals	Not listed
Catalogue of Hazardous Chemicals Prohibited from Inland Waterway Transport	Not listed

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Catalogue for Classification of Hazardous Factors of Occupational Diseases	Not listed
List of Highly Toxic Substances	Not listed

Regulations on Administration of Chemicals Subjected to Supervision and Control

Catalogue of Controlled Chemicals	Not listed

Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)

Catalogue of Precursor Chemicals	Not listed

Regulations on Administration of Ozone Depleting Substances (Decree 573 of the State Council)

List of Ozone-Depleting Substances under Control in China	Not listed

Other domestic regulatory lists

Dangerous Goods List (GB 12268-2012)	Not listed
List of Export Control of Chemical Agents and Related Equipment and Technologies	Not listed
List of Goods Prohibited from Export (No. 3) or Import (No.6)	Not listed
Inventory of Hazardous Chemicals under Key Supervision	Not listed

SECTION 16 Other information

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
EC50	Median effective concentration
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Other information None

Section	Changed item	Change	Comments
14.	Transportation information.	Modified.	
2.	Classification (GHS CN).	Modified.	
2.	Hazard statements (GHS CN).	Modified.	
2.	Hazard pictograms (GHS CN).	Modified.	
3.	Composition/information on ingredients.	Modified.	

SDS_CN_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 V3

Safety Data Sheet

Compiled according to GB/T 16483, GB/T 17519

Version:2.0

Revision date: 2022/04/08 Issue date: 2022/04/08 Supersedes: 2020/05/13

SECTION 1 Chemical product and company identification

Product identifier

Product name	HIT-RE 500 V3
Product code	BU Anchor
Chemical Chinese name	锚固嵌缝剂 HIT-RE 500 V3
Chemical English name	Injection Mortar HIT-RE 500 V3
	
Recommended use of the chemical	For professional use only Composite mortar component for fasteners in the construction industry

Details of the supplier of the safety data sheet

Supplier
Hilti (China) Ltd.
8F, Tower 2, No.58 Yao Yuan Rd.
Pudong District
200126 Shanghai - China
T +86 21 6016 7316

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

Emergency telephone number

Emergency number: Schweizerisches Toxikologisches Informationszentrum - 24h Service
+41 44 251 51 51 (international)

Country	Organisation/Company	Address	Emergency number
China	中国境内化学事故应急咨询电话 / chemical accident emergency consultation service hotline (24/7)		+86 532 83889090

SECTION 2 Hazards identification

Emergency overview

Thixotropic paste. component A: grey, component B: Red. Amine-like. Non flammable. Corrosive vapours. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Use personal protective equipment as required. Equip cleanup crew with proper protection. Ventilate area

GHS hazard classification

Health hazards: Acute toxicity (Oral), Category 5
Skin corrosion/irritation, Category 1B

	Serious eye damage/eye irritation, Category 1
	Skin sensitization, Category 1 Germ cell mutagenicity, Category 2 Reproductive toxicity, Category 1B Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment - Acute hazard, Category 2
	Hazardous to the aquatic environment - Chronic hazard, Category 2

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

Label elements

Hazard pictograms (GHS CN)

Signal word (GHS CN)

Danger.

Hazard statements (GHS CN)

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. (oral)
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS CN)

Prevention measures

P262 - Do not get in eyes, on skin, or on clothing.
P280 - Wear eye protection, protective clothing, protective gloves.

Incident response

P302+P352 - IF ON SKIN: Wash with plenty of water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Safe storage

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

Disposal

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Physical and chemical hazards

No additional information available

Health hazards

Causes severe skin burns and eye damage

May cause an allergic skin reaction

May cause respiratory irritation

Suspected of causing genetic defects

May damage fertility. (oral)

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.

Environmental hazards

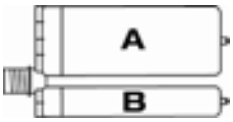
Toxic to aquatic life with long lasting effects

Other hazards

No additional information available

SECTION 3 Composition/information on ingredients

Product form



Mixture.

2-Component-Foil contains:

Component A: Epoxy resin, Reactive diluent, inorganic filler
Component B: Amine hardener, inorganic filler.

A

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	25 - 40	1675-54-3
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	10 - 20	9003-36-5
butanedioldiglycidyl ether	5 - 10	2425-79-8
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	5 - 10	30499-70-8
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2.5 - 5	2530-83-8

B

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
2-methyl-1,5-pentanediamine	25 - 35	15520-10-2
Phenol, styrenated	5 - 10	61788-44-1
m-Xylylenediamine	5 - <8	1477-55-0
2,4,6-tris(dimethylaminomethyl)phenol	1 - 2,5	90-72-2
3-Aminopropyltriethoxysilan	1 - 2,5	919-30-2

SECTION 4 First-aid measures

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.

Most important symptoms/effects

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.

Advices for first aid responders

Avoid all unnecessary exposure.

Notes for the doctor

Other medical advice or treatment	Treat symptomatically

SECTION 5 Fire-fighting measures

Extinguishing media

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

Specific hazards

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

Advice for firefighters and protective 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

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Heat and ignition sources	Keep away from heat and direct sunlight
General measures	Spilled material may present a slipping hazard
Personal Precautions, Protective Equipment and Emergency Procedures	No additional information available

For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel

For emergency responders

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

Environmental precautions

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Avoid release to the environment

Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

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

Methods and material for containment and cleaning up

Methods for cleaning	No additional information available
For containment	Collect spillage.

Prevention measures for secondary accidents

Prevention Measures for Secondary Accidents	No additional information available
Other information	Dispose of materials or solid residues at an authorized site

SECTION 7 Handling and storage

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.
Local and general ventilation	No additional information available

Storage

Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Technical measures	Comply with applicable regulations
Material used in packaging/containers	No additional information available
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 ° C
Heat and ignition sources	Keep away from heat and direct sunlight

SECTION 8 Exposure controls / Personal protection equipment

Occupational exposure limits

No additional information available

Biological limit values

No additional information available

Monitoring methods

No additional information available

Appropriate engineering controls

No additional information available

Personal protective equipment

Personal protective equipment	Safety glasses Gloves Protective clothing Avoid all unnecessary exposure
Environmental exposure controls	Avoid release to the environment.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.
Other information	Do not eat, drink or smoke during use

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.

Skin and body protection	Wear suitable protective clothing
Respiratory protection	No additional information available

Personal protective equipment symbol(s)

SECTION 9 Physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste
Colour	component A: grey, component B: Red
Odour	characteristic,Amine-like
pH	11,5 (B)
Melting point	No data available
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 ° C	No data available
Density	1.31 - 1.45 g/cm³
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, dynamic	45 - 70 Pa • s
Lower explosive limit (LEL)	No data available
Upper explosive limit (UEL)	No data available
Radioactive	No

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
Other properties	No additional information available

SECTION 11 Toxicological information

Acute toxicity

Acute toxicity (oral)	May be harmful if swallowed.
Acute toxicity (dermal)	No data available
Acute toxicity (inhalation)	No data available

HIT-RE 500 V3	
ATE CN (oral)	2500 mg/kg bodyweight

2-methyl-1,5-pentanediamine	
LD50 oral rat	1690 mg/kg (Rat)
LD50 dermal rat	1870 mg/kg
LC50 Inhalation - Rat	4.9 mg/l
ATE CN (oral)	1690 mg/kg bodyweight
ATE CN (dermal)	1870 mg/kg bodyweight
ATE CN (vapours)	4.9 mg/l/4h
ATE CN (dust,mist)	4.9 mg/l/4h

Phenol, styrenated	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158.31 mg/l/4h
ATE CN (vapours)	158.31 mg/l/4h
ATE CN (dust,mist)	158.31 mg/l/4h

m-Xylylenediamine	
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
ATE CN (oral)	660 mg/kg bodyweight
ATE CN (dust,mist)	1.34 mg/l/4h

3-Aminopropyltriethoxysilan	
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))
ATE CN (oral)	1491.5 mg/kg bodyweight
ATE CN (dermal)	4075.5 mg/kg bodyweight

2,4,6-tris(dimethylaminomethyl)phenol	
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)
ATE CN (oral)	500 mg/kg bodyweight

butanedioldiglycidyl ether	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rabbit	1130 mg/kg (Rabbit)
ATE CN (oral)	1163 mg/kg bodyweight
ATE CN (dermal)	1130 mg/kg bodyweight
ATE CN (dust,mist)	1.5 mg/l/4h

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	
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	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	
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)
ATE CN (oral)	8025 mg/kg bodyweight
ATE CN (dermal)	4250 mg/kg bodyweight

Skin corrosion/irritation

Skin corrosion/irritation	Causes severe skin burns.
pH	11,5 (B)

Serious eye damage/eye irritation

Serious eye damage/irritation	Causes serious eye damage.

Respiratory or skin sensitisation

Respiratory or skin sensitisation	May cause an allergic skin reaction.

Germ cell mutagenicity

Germ cell mutagenicity	Suspected of causing genetic defects.

Carcinogenicity

Carcinogenicity	No data available

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	
IARC group	3 - Not classifiable

Reproductive toxicity

Reproductive toxicity	May damage fertility. (oral).

STOT - single exposure

STOT-single exposure	May cause respiratory irritation.

2-methyl-1,5-pentanediamine	
STOT-single exposure	May cause respiratory irritation.

STOT - repeated exposure

STOT-repeated exposure	No data available

Aspiration hazard

Aspiration hazard	: No data available

HIT-RE 500 V3	
Density	1.31 - 1.45 g/cm³

SECTION 12 Ecological information

Ecotoxicity

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

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

Phenol, styrenated	
LC50 - Fish [1]	5.6 mg/l
EC50 - Crustacea [1]	1.44 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

m-Xylylenediamine	
LC50 - Fish [1]	75 mg/l
EC50 - Crustacea [1]	15 mg/l
NOEC chronic crustacea	4.7 mg/l

3-Aminopropyltriethoxysilan	
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)

2,4,6-tris(dimethylaminomethyl)phenol	
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)

butanedioldiglycidyl ether	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA

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

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	
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)

Persistence and degradability

HIT-RE 500 V3	
Persistence and degradability	Not established

Phenol, styrenated	
Biochemical oxygen demand (BOD)	0.000231 g O_2/g substance
Chemical oxygen demand (COD)	0.004827 g O_2/g substance

m-Xylylenediamine	
Not rapidly degradable	Yes

3-Aminopropyltriethoxysilan	
Persistence and degradability	Not readily biodegradable in water

butanedioldiglycidyl ether	
Biochemical oxygen demand (BOD)	0.01982 g O_2/g substance

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	
Not rapidly degradable	Yes

1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
Not rapidly degradable	Yes

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	
Not rapidly degradable	Yes

Bioaccumulative potential

HIT-RE 500 V3	
Bioaccumulative potential	Not established

2-methyl-1,5-pentanediamine	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Phenol, styrenated	
Bioaccumulative potential	Bioaccumulative potential
BCF - Fish [1]	See section 12.1 on ecotoxicology
BCF - Fish [2]	See section 12.1 on ecotoxicology
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)

3-Aminopropyltriethoxysilan	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500)
BCF - Fish [1]	See section 12.1 on ecotoxicology
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 ° C)

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

butanedioldiglycidyl ether	
Partition coefficient n-octanol/water (Log Pow)	-0.15

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 ° C)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

Mobility in soil

HIT-RE 500 V3	
Ecology - soil	Not established

2-methyl-1,5-pentanediamine	
Ecology - soil	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Phenol, styrenated	
Ecology - soil	Bioaccumulative potential
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)

3-Aminopropyltriethoxysilan	
Ecology - soil	Low potential for bioaccumulation (BCF < 500)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 ° C)

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

butanedioldiglycidyl ether	
Partition coefficient n-octanol/water (Log Pow)	-0.15

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	
Ecology - soil	Low bioaccumulation potential (BCF < 500)
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)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

Other adverse effects

Classification procedure (Ozone) No data available

Other information	Avoid release to the environment.

SECTION 13 Disposal considerations

Waste treatment methods	No additional information available
Contaminated container and packaging	No additional information available
Additional information	No additional information available
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.
Regional legislation (waste)	Disposal must be done according to official regulations

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (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			

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

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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15 Regulatory information

New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)

Inventory of Existing Chemical Substances in China (IECSC)	: Listed

Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)

Catalogue of Hazardous Chemicals (2015)	: Listed
Identification of major hazard installations for dangerous chemicals (GB 18218)	: Not listed
Catalogue of Severely Restricted Toxic Chemicals	: Not listed
Catalogue of Explosive Precursor Dangerous Chemicals	: Not listed
Catalogue of Hazardous Chemicals Prohibited from Inland Waterway Transport	: Not listed

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Catalogue for Classification of Hazardous Factors of Occupational Diseases	: Listed
List of Highly Toxic Substances	: Not listed

Regulations on Administration of Chemicals Subjected to Supervision and Control

Catalogue of Controlled Chemicals	: Not listed

Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)

Catalogue of Precursor Chemicals	: Not listed

Regulations on Administration of Ozone Depleting Substances (Decree 573 of the State Council)

List of Ozone-Depleting Substances under Control in China	: Not listed

Other domestic regulatory lists

Dangerous Goods List (GB 12268-2012)	: Not listed
List of Export Control of Chemical Agents and Related Equipment and Technologies	: Not listed
List of Goods Prohibited from Export (No. 3) or Import (No.6)	: Not listed
Inventory of Hazardous Chemicals under Key Supervision	: Not listed

SECTION 16 Other information

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate

BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
EC50	Median effective concentration
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Other information None

Indication of changes

Section	Changed item	Change	Comments
1.	Emergency number.	Modified.	
2.	Classification (GHS CN).	Modified.	
2.	Hazard statements (GHS CN).	Modified.	

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