

HIT-MM PLUS

en	This safety data sheet file is issued for the following production lots: 1. Version 8.X is valid for HIT-MM PLUS with a maximum expiration date of 12/2022 (see foil pack manifold) 2. Version 9.0 is valid for HIT-MM PLUS with a minimum expiration date of 01/2023 (see the foil pack manifold)
de	Diese Sicherheitsdatenblatt-Datei betrifft die folgenden Fertigungslose: 1. Version 8.X ist gültig für HIT-MM PLUS mit einem Haltbarkeitsdatum bis 12/2022 (siehe Verbindungsteil) 2. Version 9.0 ist gültig für HIT-MM PLUS mit einem Haltbarkeitsdatum ab 01/2023 (siehe Verbindungsteil)
nl	Dit veiligheidsinformatiebladbestand wordt afgegeven voor de volgende productie-lots: 1. Versie 8.X is geldig voor HIT-MM PLUS met een maximale houdbaarheidsdatum tot 12/2022 (zie foliepak verdeler) 2. Versie 9.0 is geldig voor HIT-MM PLUS met een minimale houdbaarheidsdatum tot 01/2023 (zie foliepak verdeler)
fr	Ce fichier de données de sécurité est délivré pour les lots de production suivants : 1. La version 8.X est valide pour HIT-MM PLUS avec une date d'expiration maximale de 12/2022 (voir le raccord de cartouche souple) 2. La version 9.0 est valide pour HIT-MM PLUS avec une date d'expiration maximale de 01/2023 (voir le raccord de cartouche souple)
da	Denne sikkerhedsdatabladssfil er udgivet for følgende produktions lots: 1. Version 8.X er gældende for HIT-MM PLUS med en maksimal udløbsdato d. 12/2022 (se foliepakkens manifold) 2. Version 9.0 er gældende for HIT-MM PLUS med en mindste udløbsdato d. 01/2023 (se foliepakkens manifold)
sv	Denna säkerhetsdatabladssfil har utfärdats för följande tillverkningspartier: 1. Version 8.X är giltig för HIT-MM PLUS med ett sista giltighetsdatum den 12/2022 (se folieförpackningens grenrör) 2. Version 9.0 är giltig för HIT-MM PLUS med ett första giltighetsdatum den 01/2023 (se folieförpackningens grenrör)
fi	Tämä käyttöturvallisuustiedote koskee seuraavia tuotantoeriä: 1. Versio 8.X koskee HIT-MM PLUS -tuotetta, jonka viimeinen käyttöpäivämäärä on 12/2022 tai sitä ennen (ks. foliopakkauksen taite) 2. Versio 9.0 koskee HIT-MM PLUS -tuotetta, jonka viimeinen käyttöpäivämäärä on 01/2023 tai sen jälkeen (ks. foliopakkauksen taite)
hu	Ezt a biztonsági adatlapot a következő gyártási tételekhez bocsátják ki: 1. Az 8.X változat legfeljebb 2022/12 lejáratú dátummal érvényes a HIT-MM PLUS-re (lásd a fóliacsomag sokszorosított iratát) 2. Az 9.0 változat legalább 2023/01 lejáratú dátummal érvényes a HIT-MM PLUS-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 8.X válida para HIT-MM PLUS con una fecha de caducidad máxima de 12/2022 (consulte el colector de láminas) 2. Versión 9.0 válida para HIT-MM PLUS con una fecha de caducidad mínima de 01/2023 (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 8.X é válida para a HIT-MM PLUS com um prazo máximo de validade até 12/2022 (ver as diversas embalagens) 2. A versão 9.0 é válida para a HIT-MM PLUS com um prazo mínimo de validade até 01/2023 (ver as diversas embalagens)
it	Questo file della scheda tecnica di sicurezza è rilasciato per i seguenti lotti di produzione: 1. La versione 8.X è valida per HIT-MM PLUS con data di scadenza massima 12/2022 (vedere la giunzione della confezione) 2. La versione 9.0 è valida per HIT-MM PLUS con data di scadenza minima 01/2023 (vedere la giunzione della confezione)
pl	Ten plik arkusza danych bezpieczeństwa jest wydany dla następujących części produkcyjnych: 1. Wersja 8.X obowiązuje w przypadku HIT-MM PLUS z maksymalnym dniem rozpoczęcia pracy 12/2022 (patrz opakowanie foliowe) 2. Wersja 9.0 obowiązuje w przypadku HIT-MM PLUS z minimalnym dniem rozpoczęcia pracy 01/2023 (patrz opakowanie foliowe)
ru	Этот файл сертификата безопасности предоставлен для следующих партий продукции: 1. Версия 8.X действительна для HIT-MM PLUS с максимальным сроком годности до 12.2022 г. (см. присоединительную часть на капсуле) 2. Версия 9.0 действительна для HIT-MM PLUS с минимальным сроком годности до 01.2023 г. (см. присоединительную часть на капсуле)
el	Το παρόν δελτίο δεδομένων ασφαλείας εκδίδεται για τις ακόλουθες παρτίδες παραγωγής: 1. Η έκδοση 8.X ισχύει για το HIT-MM PLUS με μέγιστη ημερομηνία λήξης τον 12/2022 (βλέπε διανομέα συσκευασίας μεμβράνης) 2. Η έκδοση 9.0 ισχύει για το HIT-MM PLUS με ελάχιστη ημερομηνία λήξης τον 01/2023 (βλέπε τον διανομέα της συσκευασίας μεμβράνης)
cs	Tento soubor s bezpečnostním listem je vystaven pro tyto výrobní závody 1. Verze 8.X je platná pro HIT-MM PLUS s maximálním datem expirace 12/2022 (viz fólie balení) 2. Verze 9.0 je platná pro HIT-MM PLUS s minimálním datem expirace 01/2023 (viz fólie balení)
bg	Този информационен лист за безопасност се публикува за следните производствени партии: 1. Версия 8.X е валидна за HIT-MM PLUS с максимален срок на валидност до 12.2022 г. (вж. фолийна опаковка за колектор) 2. Версия 9.0 е валидна за HIT-MM PLUS с минимален срок на изтичане 01.2023 г. (вж. фолийна опаковка за колектор)
lv	Šo drošības datu lapa ir izsniegta šādām ražojumu partijām: 1. Versija 8.X ir derīga izstrādājumiem HIT-MM PLUS, kura maksimālais derīguma termiņš ir 2022. gada maijs (skatīt folija iepakojuma kolektoru) 2. Versija 9.0 ir derīga izstrādājumiem HIT-MM PLUS, kura minimālais derīguma termiņš ir 2023. gada jūnijs (skatīt folija iepakojuma kolektoru)
lt	Šis saugos duomenų lapo failas išduodamas šioms gamybos partijoms: 1. 8.X versija galioja HIT-MM PLUS, kurios maksimali galiojimo data – 2022-12 (žr. folinių pakuočių rinkinį) 2. 9.0 versija galioja HIT-MM PLUS, kurios minimali galiojimo data – 2023-01 (žr. folinių pakuočių rinkinį)
sk	Tento súbor bezpečnostných údajov sa vydáva pre tieto výrobné šarže: 1. Verzia 8.X je platná pre HIT-MM PLUS s maximálnym dátumom expirácie 12/2022 (pozrite si údaj na fólii balenia) 2. Verzia 9.0 je platná pre HIT-MM PLUS s minimálnym dátumom expirácie 01/2023 (pozrite si údaj na fólii balenia)
sl	Datoteka z varnostnim listom je izdana za naslednje proizvodne serije: 1. Različica 8.X je veljavna za izdelek HIT-MM PLUS z maksimalnim datumom poteka veljavnosti: 12/2022 (glejte pakiranje) 2. Različica 9.0 je veljavna za izdelek HIT-MM PLUS z minimalnim datumom poteka veljavnosti: 01/2023 (glejte pakiranje)

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et	See ohutuskaardi fail on välja antud järgmistele tootepartiidele: 1. Versioon 8.X kehtib tootele HIT-MM PLUS viimase säilimiskuupäevaga 12/2022 (vt fooliumpakendi hargnemiskohta) 2. Versioon 9.0 kehtib tootele HIT-MM PLUS esimese säilimiskuupäevaga 01/2023 (vt fooliumpakendi hargnemiskohta)
ro	Acest fișier cu date tehnice de securitate este emis pentru următoarele locuri de producție: 1. Versiunea 8.X este valabilă pentru HIT-MM PLUS cu data maximă de expirare 12/2022 (a se vedea racordul pentru cartușe din folie) 2. Versiunea 9.0 este valabilă pentru HIT-MM PLUS cu data minimă de expirare 01/2023 (a se vedea racordul pentru cartușe din folie)
hr	Ovaj sigurnosno-tehnički list izdaje se za sljedeće proizvodne serije: 1. Verzija 8.X vrijedi za HIT-MM PLUS s maksimalnim rokom trajanja do 12/2022 (vidjeti razvodnik iz folije) 2. Verzija 9.0 vrijedi za HIT-MM PLUS s minimalnim rokom trajanja do 01/2023 (vidjeti razvodnik iz folije)
tr	Bu güvenlik bilgi formu dosyası aşağıdaki üretim partileri için hazırlanmıştır: 1. Versiyon 8.X, maksimum son kullanma tarihi 12/2022 olan HIT-MM PLUS için geçerlidir (bkz. folyo paketi manifoldu) 2. Versiyon 9.0, inimum son kullanma tarihi 01/2023 olan HIT-MM PLUS için geçerlidir (bkz. folyo paketi manifoldu)
uk	Цей файл сертифіката безпеки надано для наступних партій продукції: 1. Версія 8.X дійсна для HIT-MM PLUS з максимальним терміном придатності до 12.2022 р. (див. приєднувальну частину на капсулі) 2. Версія 9.0 дійсна для HIT-MM PLUS з мінімальним терміном придатності до 01.2023 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 8.X 对 HIT-MM PLUS 有效，最长失效日期为 2022 年 12 月（参见箔包装歧管） 2. 版本 9.0 对 HIT-MM PLUS 有效，最短失效日期为 2023 年 1 月（参见箔包装歧管）
ar	يتم إصدار ملف صحيفة بيانات السلامة لتشغيلات الإنتاج التالية: 1. الإصدار 8.X صالح لـ HIT-MM PLUS بحد أقصى لتاريخ انتهاء الصلاحية هو 2022/12 (انظر العبوة المصنوعة من رقائق الألومنيوم) 2. الإصدار 9.0 صالح لـ HIT-MM PLUS على الأقل لتاريخ انتهاء الصلاحية هو 2023/1 (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 8.X は、有効期限が最大 2022 年 12 月までの HIT-MM PLUS 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 9.0 は、有効期限が 2023 年 1 月以降の HIT-MM PLUS 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 8.X je dostupna za HIT-MM PLUS sa maksimalnim datumom isteka 12/2022 (pogledajte ivicu pakovanja od folije) 2. Verzija 9.0 je dostupna za HIT-MM PLUS sa minimalnim datumom isteka 01/2023 (pogledajte ivicu pakovanja od folije)
ms	Fail helaian data keselamatan ini dikeluarkan untuk lot pengeluaran yang berikut: 1. Versi 8.X adalah sah untuk HIT-MM PLUS dengan tarikh tamat tempoh maksimum pada 12/2022 (lihat manifold pek kerajang) 2. Versi 9.0 adalah sah untuk HIT-MM PLUS dengan tarikh tamat tempoh minimum pada 01/2023 (lihat manifold pek kerajang)
ko	본 안전보건자료는 다음 제품 로트에 대해 발급되었습니다. 1. 버전 8.X(은)는 HIT-MM PLUS에 대해 유효하며, 최대 만료 기한은 2022년 12월입니다(호일 팩 매니폴드 참조) 2. 버전 9.0(은)는 HIT-MM PLUS에 대해 유효하며, 최소 만료 기한은 2023년 1월입니다(호일 팩 매니폴드 참조)
id	File lembar data keselamatan ini diterbitkan untuk lot produksi berikut: 1. Versi 8.X berlaku untuk HIT-MM PLUS dengan tanggal kedaluwarsa maksimum 12/2022 (lihat foil pack manifold) 2. Versi 9.0 berlaku untuk HIT-MM PLUS dengan tanggal kedaluwarsa minimum 01/2023 (lihat foil pack manifold)
he	קובץ גיליון נתוני בטיחות זה מונפק עבור מגרשי הייצור הבאים: 1. גרסה 8.X תקפה ל-HIT-MM PLUS עם תאריך תפוגה מקסימלי של 12/2022 (ראה יריעת פולק) (foil pack manifold) 2. גרסה 9.0 תקפה ל-HIT-MM PLUS עם תאריך תפוגה מינימלי של 01/2023 (ראה יריעת פולק) (foil pack manifold)
th	แผ่นข้อมูลด้านความปลอดภัยนี้จัดทำสำหรับล็อตการผลิตดังต่อไปนี้: 1. เวอร์ชัน 8.X ใช้ได้กับ HIT-MM PLUS ที่มีวันหมดอายุไม่เกิน 12/2022 (โปรดดูแผ่นพับห่อพอยส์) 2. เวอร์ชัน 9.0 ใช้ได้กับ HIT-MM PLUS ที่มีวันหมดอายุขั้นต่ำ 01/2023 (โปรดดูแผ่นพับห่อพอยส์)
vi	Tệp bảng dữ liệu an toàn này được phát hành cho các lô sản xuất sau: 1. Phiên bản 8.X hợp lệ cho HIT-MM PLUS với ngày hết hạn tối đa là 12/2022 (xem ống keo cây thép) 2. Phiên bản 9.0 hợp lệ cho HIT-MM PLUS với ngày hết hạn tối thiểu là 01/2023 (xem ống keo cây thép)
zh tw	下列生產批次將獲核發本安全資料表檔案： 1. 8.X 版適用於 HIT-MM PLUS，最長到期日 12/2022（請見鋁箔包打字紙） 2. 9.0 版適用於 HIT-MM PLUS，最短到期日 01/2023（請見鋁箔包打字紙）
kk	Бұл қауіпсіздік паспорты мына өндірістік партиялар үшін шығарылады: 1. 8.X нұсқасы жарамдылық мерзімі көп уақытты (12/2022) қамтитын HIT-MM PLUS үшін жарамды (жұқалтыр қаптаманы қараңыз) 2. 9.0 нұсқасы жарамдылық мерзімі аз уақытты (01/2023) қамтитын HIT-MM PLUS үшін жарамды (жұқалтыр қаптаманы қараңыз)

HIT-MM PLUS

Safety information for 2-Component-products

Issue date: 24/09/2021

Revision date: 24/09/2021

Supersedes: 03/04/2020

Version: 9.0

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-MM PLUS



Product code

BU Anchor

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

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

SECTION 3: Kit contents

Classification of the Product

GHS SG classification

Health hazards

Serious eye damage/eye irritation, Category 2

Environmental hazards

Skin sensitisation, Category 1

Hazardous to the aquatic environment — Acute Hazard, Category 1

Hazardous to the aquatic environment — Chronic Hazard, Category 1

Label elements

GHS SG labelling

Hazard pictograms (GHS SG)



GHS07

GHS09

Signal word (GHS SG)

Warning

Hazardous ingredients

methacrylates, dibenzoyl peroxide

Hazard statements (GHS SG)

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H410 - Very toxic to aquatic life with long lasting effects.

HIT-MM PLUS

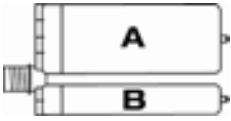
Safety information for 2-Component-products

Precautionary statements (GHS SG)

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

Additional information

2-Component-foilpack, contains:
 Component A: Urethane methacrylate resin, inorganic filler
 Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	GHS SG classification
HIT-MM PLUS, B		1	pcs	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HIT-MM PLUS, A		1	pcs	Eye Irrit. 2, H319 Skin Sens. 1, H317

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
Storage conditions	Keep cool. Protect from sunlight.
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 Provide good ventilation in process area to prevent formation of vapour
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 Store away from other materials.
For containment	Collect spillage.
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

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

HIT-MM PLUS

Safety information for 2-Component-products

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	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects after eye contact	May cause severe irritation
Symptoms/effects after skin contact	May cause an allergic skin reaction.

SECTION 7: Fire fighting measures

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

SECTION 8: Other information

No data available

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

Issue date: 24.09.2021

Revision date: 24.09.2021

Supersedes: 03.04.2020

Version: 9.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Product name	HIT-MM PLUS, A
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	Composite mortar component for fasteners in the construction industry
Restrictions on use	For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

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

1.5. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +65 6777 7887
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards	Serious eye damage/eye irritation, Category 2 Skin sensitisation, Category 1
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2.2. Label elements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

Warning

Hazard statements (GHS SG)

May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)

Precautionary statements

Prevention

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

Response

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

2.3. Other hazards

No additional information available

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration (%)	Formula	Product identifier
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	10 - 25	C7H12O3	(CAS-No.) 27813-02-1 (EC-No.) 248-666-3 (EC Index-No.) 607-125-00-5
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	2,5 - 5	C12H18O4	(CAS-No.) 2082-81-7 (EC-No.) 218-218-1
1,1'-(p-tolylimino)dipropan-2-ol	0,1 - 1	C13H21NO2	(CAS-No.) 38668-48-3 (EC-No.) 254-075-1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
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.
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	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

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

No additional information available

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.
--	--

5.3. Special Protective actions for the 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.

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

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.

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. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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. Provide good ventilation in process area to prevent formation of vapour.
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	Keep cool. Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 – 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls	Ensure adequate ventilation.
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HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

8.4. Personal protective equipment

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)	0,12		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

Personal protective equipment symbol(s)



Environmental exposure controls

Avoid release to the environment.

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 109 °C DIN EN ISO 1523
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.65 g/ml AW 4.3.23
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, kinematic	60606.061 mm ² /s
Viscosity, dynamic	100 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

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-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LD50 oral rat	> 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	≥ 5000 mg/kg bodyweight (Rabbit; Experimental value)

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
LD50 oral rat	10066 mg/kg
LD50 dermal rat	> 3000 mg/kg

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

Aspiration hazard Not classified

HIT-MM PLUS, A	
Viscosity, kinematic	60606.061 mm ² /s
Density	1.65 g/ml AW 4.3.23
Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
Other information	Avoid release to the environment.

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LC50 - Fish [1]	493 mg/l (48 h; Leuciscus idus; GLP)
EC50 - Crustacea [1]	> 143 mg/l (48 h; Daphnia magna; GLP)
ErC50 algae	97.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	≤ 100
BCF - Fish [2]	3.2 Quantitative structure-activity relationship (QSAR)
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
Partition coefficient n-octanol/water (Log Koc)	1.9 (log Koc, Calculated value)

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
LC50 - Other aquatic organisms [1]	9.79 mg/l
NOEC (acute)	7.51 mg/l
NOEC (chronic)	20 mg/l
Partition coefficient n-octanol/water (Log Pow)	3.1

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LC50 - Fish [1]	≈ 17 mg/l
LC50 - Other aquatic organisms [1]	245 mg/l
EC50 - Crustacea [1]	28.8 mg/l
NOEC (acute)	57.8 mg/l
Partition coefficient n-octanol/water (Log Kow)	2.1

12.2. Persistence and degradability

HIT-MM PLUS, A	
Persistence and degradability	Not established.
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Not rapidly degradable	
Persistence and degradability	Readily biodegradable in water.
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Not rapidly degradable	
Biodegradation	84 %

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

12.3. Bioaccumulative potential

HIT-MM PLUS, A	
Bioaccumulative potential	Not established.
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
BCF - Fish [1]	≤ 100
BCF - Fish [2]	3.2 Quantitative structure-activity relationship (QSAR)
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
Partition coefficient n-octanol/water (Log Koc)	1.9 (log Koc, Calculated value)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Partition coefficient n-octanol/water (Log Pow)	3.1
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1

12.4. Mobility in soil

HIT-MM PLUS, A	
Mobility in soil	No additional information available
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
Partition coefficient n-octanol/water (Log Koc)	1.9 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Partition coefficient n-octanol/water (Log Pow)	3.1
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

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.
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SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 2014

ADR	IMDG	IATA	RID
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Regulation		Component/Mixture
Environmental Protection and Management Act (Hazardous Substances)	List of Hazardous Substances	HIT-MM PLUS, A

15.2. International Regulations

No additional information available

15.3. Chemical inventory status

Australia AICS	No
Canada DSL	No
Canada NDSL	No
China IECSC	No
EU EINECS	No
EU ELINCS	No
EU NLP	No
Korea ECL	No
US TSCA	No

SECTION 16: Other information

HIT-MM PLUS, A

Safety Data Sheet

According to SS 586 Part 3: 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
EC50 - Median effective concentration
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LOAEL - Lowest Observed Adverse Effect Level
NOAEC - No-Observed Adverse Effect Concentration
LD50 - Median lethal dose
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
OECD - Organisation for Economic Co-operation and Development
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

Indication of changes:

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

SDS_SG_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-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

Issue date: 24.09.2021

Revision date: 24.09.2021

Supersedes: 03.04.2020

Version: 7.4

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Product name	HIT-MM PLUS, B
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	Composite mortar component for fasteners in the construction industry
Restrictions on use	For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

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

1.5. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +65 6777 7887
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards	Skin sensitisation, Category 1
Environmental hazards	Hazardous to the aquatic environment — Acute Hazard, Category 1 Hazardous to the aquatic environment — Chronic Hazard, Category 1

2.2. Label elements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

Warning

Hazard statements (GHS SG)

May cause an allergic skin reaction. (H317)
Very toxic to aquatic life with long lasting effects. (H410)

Precautionary statements

Prevention

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

Response

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

2.3. Other hazards

No additional information available

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration (%)	Formula	Product identifier
dibenzoyl peroxide	5 - <10	C14H10O4	(CAS-No.) 94-36-0 (EC-No.) 202-327-6 (EC Index-No.) 617-008-00-0

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
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.
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	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

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

No additional information available

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.
--	--

5.3. Special Protective actions for the fire fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Spilled material may present a slipping hazard.
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HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

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.

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. Store away from other materials.
Other information Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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. Provide good ventilation in process area to prevent formation of vapour.
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 Keep cool. Protect from sunlight.
Incompatible products Strong bases. Strong acids.
Incompatible materials Sources of ignition. Direct sunlight.
Storage temperature 5 – 25 °C
Heat and ignition sources Keep away from heat and direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HIT-MM PLUS, B	
Singapore - Occupational Exposure Limits	
Local name	Benzoyl peroxide
PEL (OEL TWA)	5 mg/m ³
Regulatory reference	WSH (General Provision) Regulation 2014
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 adequate ventilation.

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

8.4. Personal protective equipment

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)	0,12		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

Personal protective equipment symbol(s)



Environmental exposure controls

Avoid release to the environment.

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	white
Odour	characteristic
Odour threshold	Not determined
pH	≈ 6
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.7 g/cm ³ DIN 51757
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, kinematic	52941.176 mm ² /s
Viscosity, dynamic	90 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

9.2. Other information

SADT 65 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

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
Skin corrosion/irritation	Not classified pH: ≈ 6
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

HIT-MM PLUS, B	
Viscosity, kinematic	52941.176 mm ² /s
Density	1.7 g/cm ³ DIN 51757
Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) Very toxic to aquatic life.

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

Hazardous to the aquatic environment, long-term (chronic) Very toxic to aquatic life with long lasting effects.

Other information Avoid release to the environment.

dibenzoyl peroxide (94-36-0)	
LC50 - Fish [2]	0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
EC50 - Crustacea [1]	0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	0.0711 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (acute)	0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC chronic fish	0.001 mg/l
Partition coefficient n-octanol/water (Log Pow)	3.71
Partition coefficient n-octanol/water (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)

12.2. Persistence and degradability

HIT-MM PLUS, B	
Persistence and degradability	Not established.
dibenzoyl peroxide (94-36-0)	
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

HIT-MM PLUS, B	
Bioaccumulative potential	Not established.
dibenzoyl peroxide (94-36-0)	
Partition coefficient n-octanol/water (Log Pow)	3.71
Partition coefficient n-octanol/water (Log Koc)	3.8 (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	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

HIT-MM PLUS, B	
Mobility in soil	No additional information available
dibenzoyl peroxide (94-36-0)	
Surface tension	No data available (test not performed)
Partition coefficient n-octanol/water (Log Pow)	3.71
Partition coefficient n-octanol/water (Log Koc)	3.8 (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.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
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. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
Transport document description			
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), 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

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)

-

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

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 2014

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. National regulations

Regulation		Component/Mixture
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	Maritime and Port Authority-Dangerous Goods	Organic peroxide type B, solid

15.2. International Regulations

No additional information available

15.3. Chemical inventory status

Australia AICS	No
Canada DSL	Yes
Canada NDSL	No
China IECSC	No
EU EINECS	No
EU ELINCS	No
EU NLP	No
Korea ECL	No
US TSCA	Yes

SECTION 16: Other information

HIT-MM PLUS, B

Safety Data Sheet

According to SS 586 Part 3: 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
EC50 - Median effective concentration
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
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
OECD - Organisation for Economic Co-operation and Development
PNEC - Predicted No-Effect Concentration
PBT - Persistent Bioaccumulative Toxic
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

Indication of changes:

Section	Changed item	Change	Comments
14	Transportation information	Added	

SDS_SG_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-MM PLUS

Safety information for 2-Component-products

Issue date: 03/04/2020

Revision date: 03/04/2020

Supersedes: 29/01/2019

Version: 8.0

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-MM PLUS



Product code

BU Anchor

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

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

SECTION 3: Kit contents

Classification of the Product

GHS SG classification

Health hazards

Serious eye damage/eye irritation, Category 2A
Skin sensitisation, Category 1
Carcinogenicity, Category 1B

Environmental hazards

Hazardous to the aquatic environment — Acute Hazard, Category 1
Hazardous to the aquatic environment — Chronic Hazard, Category 1

Label elements

GHS SG labelling

Hazard pictograms (GHS SG)



GHS07



GHS08



GHS09

Signal word (GHS SG)

Danger

Hazardous ingredients

methacrylates, dibenzoyl peroxide, 1,2-dihydroxybenzene

Hazard statements (GHS SG)

H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.

HIT-MM PLUS

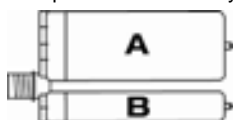
Safety information for 2-Component-products

Precautionary statements (GHS SG)

H350 - May cause cancer.
H410 - Very toxic to aquatic life with long lasting effects.
P280 - Wear protective gloves, protective clothing, eye protection.
P262 - Do not get in eyes, on skin, or on clothing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-Component-foilpack, contains:
Component A: Urethane methacrylate resin, inorganic filler
Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	GHS SG classification
HIT-MM PLUS, A		1	pcs	Eye Irrit. 2A, H319 Skin Sens. 1, H317 Carc. 1B, H350
HIT-MM PLUS, B		1	pcs	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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
Storage conditions	Keep cool. Protect from sunlight.
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 Provide good ventilation in process area to prevent formation of vapour
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 Store away from other materials.
For containment	Collect spillage.
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

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.

HIT-MM PLUS

Safety information for 2-Component-products

First-aid measures after inhalation	Do not induce vomiting Obtain emergency medical attention 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	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects after eye contact	May cause severe irritation
Symptoms/effects after skin contact	May cause an allergic skin reaction.

SECTION 7: Fire fighting measures

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

SECTION 8: Other information

No data available

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

Version: 7.3

Supersedes: 28.01.2019

Revision date: 03.04.2020

Issue date: 03.04.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name HIT-MM PLUS, B
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 Composite mortar component for fasteners in the construction industry
Restrictions on use For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

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

1.5. Emergency telephone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+65 6777 7887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards Skin sensitisation, Category 1
Environmental hazards Hazardous to the aquatic environment — Acute Hazard, Category 1
Hazardous to the aquatic environment — Chronic Hazard, Category 1

2.2. Label elements

Hazard pictograms (GHS SG)



GHS07

GHS09

Signal word (GHS SG)

Warning

Hazard statements (GHS SG)

H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

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

Response

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

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration(%)	Formula	Product identifier
dibenzoyl peroxide	5 - <10	C14H10O4	(CAS-No.) 94-36-0 (EC-No.) 202-327-6 (EC Index-No.) 617-008-00-0

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention.
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.
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	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

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

No additional information available

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

No additional information available

5.3. Special Protective actions for the 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.

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

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.

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. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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. Provide good ventilation in process area to prevent formation of vapour.
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	Keep cool. Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL PEL (mg/m ³)	5 mg/m ³
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8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls	Ensure good ventilation of the work station.
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HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

8.4. Personal protective equipment

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)	0,12		EN 374

Eye protection

Wear security glasses which protect from splashes

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection

Wear suitable protective clothing



Environmental exposure controls

Avoid release to the environment.

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	white.
Odour	characteristic.
Odour threshold	Not determined
pH	≈ 6
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.7 g/cm ³ DIN 51757
Solubility	Water: Not miscible
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	90 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

9.2. Other information

SADT 65 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Effects on humans

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

11.2. Acute toxicity

HIT-MM PLUS, B			
Oral	Rat	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available
Inhalation	Rat	LC ₅₀	No data available
	Mouse	LC ₅₀	No data available
Dermal	Rabbit	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available

11.3. Skin corrosion/irritation - Description

No data available

11.4. Serious eye damage/eye irritation - Description

No data available

11.5. Skin or Respiratory sensitization - Description

No data available

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

11.6. Germ cell mutagenicity - Description

No data available

11.7. Carcinogenicity - Description

No data available

11.8. Reproductive toxicity - Description

No data available

11.9. Specific target organ toxicity (single exposure) - Description

No data available

11.10. Specific target organ toxicity (repeated exposure) - Description

No data available

11.11. Aspiration hazard - Description

No data available

11.12. Other health hazard

No data available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	Very toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

dibenzoyl peroxide (94-36-0)	
EC50 Daphnia 1	0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
LC50 fish 2	0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
ErC50 (algae)	0.0711 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (acute)	0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC chronic fish	< 0.001

12.2. Persistence and degradability

HIT-MM PLUS, B	
Persistence and degradability	Not established.
dibenzoyl peroxide (94-36-0)	
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

HIT-MM PLUS, B	
Bioaccumulative potential	Not established.
dibenzoyl peroxide (94-36-0)	
Log Pow	3.71
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

dibenzoyl peroxide (94-36-0)	
Surface tension	No data available (test not performed)
Log Koc	3.8 (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.

12.5. Results of PBT and vPvB assessment

HIT-MM PLUS, B	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Component	
dibenzoyl peroxide (94-36-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment 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.
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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)			
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

Special provisions (ADR) 375

- Transport by sea

No data available

HIT-MM PLUS, B

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

- Air transport

Special provisions (IATA) A197

- Rail transport

Carriage prohibited (RID) No

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

SECTION 15: Regulatory information

15.1. National regulations

No data available

15.2. International Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Sens. 1 H317

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Full text of H statements : see section 16

15.3. Chemical inventory status

No additional information available

SECTION 16: Other information

Other information None.

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Org. Perox. B	Organic Peroxides, Type B
Skin Sens. 1	Skin sensitisation, Category 1
H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS_SG_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-MM PLUS, A

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

Version: 8.0

Supersedes: 25.01.2019

Revision date: 03.04.2020

Issue date: 03.04.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name HIT-MM PLUS, A
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 Composite mortar component for fasteners in the construction industry
Restrictions on use For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

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

1.5. Emergency telephone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+65 6777 7887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards Serious eye damage/eye irritation, Category 2
Skin sensitisation, Category 1
Carcinogenicity, Category 1B

2.2. Label elements

Hazard pictograms (GHS SG)



GHS07

GHS08

Signal word (GHS SG)

Danger

Hazard statements (GHS SG)

H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H350 - May cause cancer.

Precautionary statements

Prevention

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

Response

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

HIT-MM PLUS, A

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration(%)	Formula	Product identifier
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	10 - 25	C7H12O3	(CAS-No.) 27813-02-1 (EC-No.) 248-666-3 (EC Index-No.) 607-125-00-5
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	2,5 - 5	C12H18O4	(CAS-No.) 2082-81-7 (EC-No.) 218-218-1 (EC Index-No.)
1,1'-(p-tolylimino)dipropan-2-ol	0,1 - 1	C13H21NO2	(CAS-No.) 38668-48-3 (EC-No.) 254-075-1 (EC Index-No.)
1,2-dihydroxybenzene	0,1 - <1	C6H6O2	(CAS-No.) 120-80-9 (EC-No.) 204-427-5 (EC Index-No.) 604-016-00-4

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention.
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.
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	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

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

No additional information available

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

No additional information available

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Safety Data Sheet

According to the Singapore standard SS 586-1-2014

5.3. Special Protective actions for the fire fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

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

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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. Store away from other materials.
Other information Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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. Provide good ventilation in process area to prevent formation of vapour.
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 Keep cool. Protect from sunlight.
Incompatible products Strong bases. Strong acids.
Incompatible materials Sources of ignition. Direct sunlight.
Storage temperature 5 - 25 °C
Heat and ignition sources Keep away from heat and direct sunlight.

7.3. Specific end use(s)

No additional information available

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According to the Singapore standard SS 586-1-2014

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL PEL (mg/m³) 5 mg/m³

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

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)	0,12		EN 374

Eye protection Wear security glasses which protect from splashes

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection Wear suitable protective clothing



Environmental exposure controls

Avoid release to the environment.

Consumer exposure controls

Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey.
Odour	characteristic.
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 109 °C DIN EN ISO 1523
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available

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Relative density	No data available
Density	1.65 g/ml AW 4.3.23
Solubility	Water: Not miscible
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	100 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Effects on humans

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

11.2. Acute toxicity

HIT-MM PLUS, A			
Oral	Rat	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available
Inhalation	Rat	LC ₅₀	No data available
	Mouse	LC ₅₀	No data available
Dermal	Rabbit	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available

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2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)			
Oral	Rat	LD ₅₀	> 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
Dermal	Rabbit	LD ₅₀	>= 5000 mg/kg bodyweight (Rabbit; Experimental value)
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)			
Oral	Rat	LD ₅₀	10066 mg/kg
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)			
Oral	Rat	LD ₅₀	25 mg/kg
1,2-dihydroxybenzene (120-80-9)			
Oral	Rat	LD ₅₀	300 mg/kg

11.3. Skin corrosion/irritation - Description

No data available

11.4. Serious eye damage/eye irritation - Description

No data available

11.5. Skin or Respiratory sensitization - Description

No data available

11.6. Germ cell mutagenicity - Description

No data available

11.7. Carcinogenicity - Description

No data available

11.8. Reproductive toxicity - Description

No data available

11.9. Specific target organ toxicity (single exposure) - Description

No data available

11.10. Specific target organ toxicity (repeated exposure) - Description

No data available

11.11. Aspiration hazard - Description

No data available

11.12. Other health hazard

No data available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
Other information	Avoid release to the environment.

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According to the Singapore standard SS 586-1-2014

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LC50 fish 1	493 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1	> 143 mg/l (48 h; Daphnia magna; GLP)
ErC50 (algae)	> 97.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
Threshold limit algae 1	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit algae 2	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
LC50 other aquatic organisms 1	9.79 mg/l
NOEC (acute)	7.51 mg/l
NOEC (chronic)	20 mg/l
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LC50 fish 1	≈ 17 mg/l
LC50 other aquatic organisms 1	245 mg/l
EC50 Daphnia 1	28.8 mg/l
NOEC (acute)	57.8 mg/l
1,2-dihydroxybenzene (120-80-9)	
LC50 fish 1	9.22 mg/l
LC50 other aquatic organisms 1	22 mg/l

12.2. Persistence and degradability

HIT-MM PLUS, A	
Persistence and degradability	Not established.
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Persistence and degradability	Readily biodegradable in water.
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Biodegradation	84 %

12.3. Bioaccumulative potential

HIT-MM PLUS, A	
Bioaccumulative potential	Not established.
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
BCF fish 1	<= 100
BCF fish 2	3.2 Quantitative structure-activity relationship (QSAR)
Log Pow	0.97 (OECD 102 method)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Log Pow	3.1
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
BCF fish 1	≈
Log Kow	2.1

12.4. Mobility in soil

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Log Koc	1.9 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

HIT-MM PLUS, A	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Component	
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

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Safety Data Sheet

According to the Singapore standard SS 586-1-2014

SECTION 13: Disposal considerations

13.1. Waste treatment 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.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Rail transport

Carriage prohibited (RID)

No

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

SECTION 15: Regulatory information

15.1. National regulations

No data available

15.2. International Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Irrit. 2 H319

Skin Sens. 1 H317

Carc. 1B H350

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According to the Singapore standard SS 586-1-2014

Full text of H statements : see section 16

15.3. Chemical inventory status

No additional information available

SECTION 16: Other information

Other information None.

Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H311	Toxic 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.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.

SDS_SG_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.