



## Submittal Review Response

Project Name: **Hilo WWTP Rehabilitation and Replacement Project Phase 1**  
Submittal No.: **04055-001.0**  
Date: **8/21/2025**

Client: County of Hawai'i Carollo Project No.: 203975  
Contractor: Nan, Inc.  
Submittal Name: Adhesive Bonding Reinforcing Bars and All Thread Rods In Masonry  
Reviewed By: Marissa Kurniawan, Felicia Fan, Hipom Caleb Che

### SUBMITTAL REVIEW

Review is for general compliance with contract documents. No responsibility is assumed by Carollo for correctness of quantities, dimensions, and details. No deviation or variation is approved unless specifically addressed in these review comments. Refer to Section 01330 for additional requirements. The Contractor shall assume full responsibility for coordination with all other trades and deviations from contract requirements.

Approved	<input type="checkbox"/> No Exceptions
	<input checked="" type="checkbox"/> Make Corrections Noted - See Comments
	<input type="checkbox"/> Make Corrections Noted - Confirm
Not Approved	<input type="checkbox"/> Correct and Resubmit
	<input type="checkbox"/> Rejected - See Remarks
Receipt Acknowledged	<input type="checkbox"/> Filed for Record
	<input type="checkbox"/> With Comments - Resubmit

### Review Comments:

1. The ICC ESR-4144 report submitted is for Adhesive Anchor System in Unreinforced Masonry, which is not applicable to this project. The correct ICC report is ESR-4143 – Adhesive Anchor System in Cracked and Uncracked and Grouted and UngROUTed Concrete Masonry Unit Walls and Clay Brick Masonry Walls. Follow the current version of ICC ESR-4143 for this project.

High Priority

## CONTRACTOR SUBMITTAL TRANSMITTAL FORM REV. A

**Owner:** County of Hawaii  
**Contractor:** Nan, Inc.  
**Project Name:** Hilo WWTP Phase 1  
**Submittal Title:**  
**TO:**  
**From:** Nan Inc.

**Project No.:** WW-4705R  
**Submittal Number:**  
For Information Only

Specification No. and Subject of Submittal / Equipment Supplier	
Spec:	Paragraph:
Authored By:	Date Submitted:

Submittal Certification	
<b>Check Either (A) or (B):</b>	
<input type="checkbox"/> (A)	We have verified that the equipment or material contained in this submittal meets all the requirements specified in the project manual or shown on the contract drawings with <u>no exceptions</u> .
<input type="checkbox"/> (B)	We have verified that the equipment or material contained in this submittal meets all the requirements specified in the project manual or shown on the contract drawings <u>except</u> for the deviations listed.
Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements.	

General Contractor's Reviewer's Signature:		
<b>Printed Name and Title:</b> In the event, Contractor believes the Submittal response does or will cause a change to the requirements of the Contract, Contractor shall immediately give written notice stating that Contractor considers the response to be a Change Order.		
<b>Firm:</b>	<b>Signature:</b>	<b>Date Returned:</b>

PM/CM Office Use	
Date Received GC to PM/CM:	
Date Received PM/CM to Reviewer:	
Date Received Reviewer to PM/CM:	
Date Sent PM/CM to GC:	

Nan, Inc

PROJECT: HILO WWTP REHABILITATION  
AND REPLACEMENT PROJECT - PHASE 1

JOB NO. WW-4705R

THIS SUBMITTAL HAS BEEN CHECKED BY  
THIS CONTRACTOR. IT IS CERTIFIED  
CORRECT, COMPLETE, AND IN  
COMPLIANCE WITH CONTRACT  
DRAWINGS AND SPECIFICATIONS. ALL  
AFFECTED CONTRACTORS AND  
SUPPLIERS ARE AWARE OF, AND WILL  
INTEGRATE THIS SUBMITTAL (UPON  
APPROVAL) INTO THEIR OWN WORK.

DATE RECEIVED \_\_\_\_\_  
SPECIFICATION SECTION # \_\_\_\_\_  
SPECIFICATION \_\_\_\_\_  
PARAGRAPH \_\_\_\_\_  
DRAWING \_\_\_\_\_  
SUBCONTRACTOR \_\_\_\_\_  
SUPPLIER \_\_\_\_\_  
MANUFACTURER \_\_\_\_\_

CERTIFIED BY CQCM or Designee : \_\_\_\_\_

## **SECTION 04055**

### **ADHESIVE BONDING REINFORCING BARS AND ALL THREAD RODS IN MASONRY**

#### **PART 1 GENERAL**

##### **1.01 SUMMARY**

- A. Section includes: Bonding reinforcing bars and all thread rods in masonry using injectable, 2-component adhesive.

##### **1.02 REFERENCES**

- A. American National Standards Institute (ANSI):
  - 1. Standard B212.15 - Carbide Tipped Masonry Drills and Blanks for Carbide Tipped Masonry Drills.
- B. ICC Evaluation Service, Inc. (ICC-ES):
  - 1. AC58 - Acceptance Criteria for Adhesive Anchors in Masonry Elements.
- C. Society for Protective Coatings (SSPC):
  - 1. Surface Preparation Standards (SP).
    - a. SP-1 - Solvent Cleaning.

##### **1.03 DEFINITIONS**

- A. Evaluation Report: Report prepared by ICC-ES, or by other testing agency acceptable to the Engineer and to the Authority Having Jurisdiction, that documents testing and review of the adhesive product to confirm that it conforms to the requirements of ICC-ES AC58.

##### **1.04 SUBMITTALS**

- A. Product data: Furnish technical data for adhesives, including:
  - 1. Independent testing laboratory results indicating allowable loads in tension and shear for masonry walls of the types included in the Work, with load modification factors for temperature, spacing, edge distance, and other installation variables.
  - 2. Handling and storage instructions.
  - 3. Installation instructions.
- B. Quality control submittals:
  - 1. Special inspection: Detailed instructions for special inspection to comply with the building code specified in Section 01410 - Regulatory Requirements.
  - 2. Evaluation Report confirming that the product complies with the requirements of ICC-ES AC58.

## **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Store and protect as follows, unless manufacturer has more stringent requirements:
  - 1. Store adhesive components on pallets or shelving in a covered-storage area protected from weather.
  - 2. Control temperature to maintain storage within manufacturer's recommended temperature range.
    - a. If products are stored at temperatures outside manufacturer's recommended range, test components prior to use by methods acceptable to the Engineer to determine if the products still meet specified requirements.
  - 3. Dispose of products that have passed their expiration date.

## **1.06 PROJECT CONDITIONS**

- A. As specified in Section 01850 – Design Criteria.
- B. Seismic design category (SDC) for structures: As specified in Section 01850 - Design Criteria.

## **PART 2 PRODUCTS**

### **2.01 GENERAL**

- A. Like items of materials: Use end products of one manufacturer to achieve structural compatibility and single-source responsibility.

### **2.02 ADHESIVE FOR SELF-CONTAINED CARTRIDGE SYSTEM**

- A. Adhesive shall have a current Evaluation Report demonstrating compliance with the requirements of ICC-ES AC58.
- B. Materials:
  - 1. 2-component structural adhesive, insensitive to moisture, and gray in color.
  - 2. Cure temperature, pot life, and workability: Compatible with intended use and environmental conditions.
- C. Packaging:
  - 1. Furnished in disposable, side-by-side cartridges with resin and hardener components isolated until mixing through manufacturer's static mixing nozzle.
    - a. Nozzle designed to thoroughly blend the components, in the proper mixing ratio, for injection from the nozzle directly into prepared hole.
    - b. Provide nozzle extensions as required to allow full-depth insertion and filling from the bottom of the hole.
  - 2. Container markings: Include manufacturer's name, product name, batch number, mix ratio by volume, product expiration date, ANSI hazard classification, and appropriate ANSI handling precautions.

- D. For installation in solid masonry and solid-grouted masonry (concrete or brick):
1. Manufacturers: One of the following or equal:
    - a.  Hilti, Inc., HY-270 Adhesive Anchor System.
    - b. Simpson Strong-Tie Co., Inc., ET-HP Anchoring Adhesive.
    - c. USP Structural Connectors, CIA-GEL 7000 Masonry Epoxy Adhesive.

## 2.03 ALL THREAD RODS

- A. Materials: As specified in Section 05120 - Structural Steel Framing.

## 2.04 REINFORCING BARS

- A. As specified in Section 04090 - Masonry Accessories.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. Unless otherwise required for "conditions of use" in the Evaluation Report submitted, prepare and install holes, adhesive, and inserts (all thread rods or reinforcing bars) in accordance with the manufacturer's recommendations and this Section:
  1. In the event of conflicts, the more restrictive provisions shall govern.
- B. Do not install adhesive-bonded all-thread rods or reinforcing bars in upwardly inclined and overhead applications.

### 3.02 PREPARATION

- A. Prior to completing manufacturer's on-site training specified in this Section, do not:
  1. Drill holes for reinforcing bars or all thread rods.
  2. Mix or install adhesive in holes.
- B. Review manufacturer's installation instructions and "conditions of use" stipulated in the Evaluation Report before beginning work.
- C. Confirm that adhesive and substrate receiving adhesive are within manufacturer's recommended temperature range and will remain so during the cure time for the product.

### 3.03 HOLE LAYOUT AND INSTALLATION

- A. Drilling holes:
  1. Determine location of reinforcing bars or other obstructions with a non-destructive indicator device. Mark locations with on the surface of the masonry using removable construction crayon, or other method acceptable to the Engineer.
  2. Do not damage or cut existing reinforcing bars, electrical conduits, or other items embedded in the masonry without prior acceptance by Engineer.

- B. Hole drilling equipment:
1. Electric or pneumatic rotary impact type.
    - a. Set drill to "rotation only" mode, or to "rotation plus hammer" mode in accordance with manufacturer's installation instructions and the requirements of the Evaluation Report.
  2. Where edge distances are less than 2 inches and "rotation plus hammer" mode is permitted, use lighter impact equipment to prevent micro-cracking and spalling from drilling.
  3. Drill bits: Carbide-tipped in accordance with ANSI B212-15.
  4. Hollow drill bits with flushing air systems are preferred. Air supplied to hollow drill bits shall be free of oil, water, or other contaminants that will reduce bond.
- C. Hole diameter: As recommended in the manufacturer's installation instructions and the Evaluation Report.
- D. Hole depth: As recommended by the manufacturer's installation instructions to provide minimum effective embedment indicated on the Drawings.
- E. Obstructions in drill path:
1. If an existing reinforcing bar or other obstruction is hit while drilling hole, stop drilling and fill the hole with dry-pack mortar. Relocate the hole to miss the obstruction and drill to the required depth.
    - a. Allow dry-pack mortar to cure to strength equal to that of the surrounding masonry before resuming drilling in that area.
    - b. Epoxy grout may be substituted for dry-pack mortar when acceptable to the Engineer.
  2. Avoid drilling an excessive number of adjacent holes that would weaken the structural member and endanger the stability of the structure. Obtain Engineer's acceptance of distance between abandoned and relocated holes.
  3. Bent bar reinforcing bars: Where edge distances are critical and interference with existing reinforcing steel is likely, and if acceptable to Engineer, drill hole at 10 degree angle (or less) from axis of reinforcing bar or all thread rod being installed.
- F. Cleaning holes:
1. Insert air nozzle to bottom of hole and blow out loose dust.
    - a. Use compressed air that is free of oil, water, or other contaminants.
    - b. Provide minimum air pressure of 90 pounds per square inch for not less than 4 seconds.
  2. Using a stiff bristle brush of diameter that provides contact around the full perimeter of the hole, vigorously brush the hole to dislodge compacted drilling dust.
    - a. Insert brush to the bottom of the hole and withdraw using a simultaneous twisting motion.
    - b. Repeat at least 4 times.
  3. Repeat the preceding steps as required to remove drilling dust or other material that will reduce bond, and as required by the manufacturer and the Evaluation Report.
  4. Leave prepared hole clean and dry.

### **3.04 INSTALLATION OF ADHESIVE AND INSERTS**

- A. Clean and prepare inserts:
  1. Prepare embedded length of reinforcing bars and all thread rods by cleaning to bare metal. The inserts shall be free of oil, grease, paint, dirt, mill scale, rust, or other coatings that will reduce bond.
  2. Solvent-clean prepared reinforcing bars and all thread rods over their embedment length in accordance with SSPC SP-1. Provide an oil and grease-free surface for bonding of adhesive to steel.
- B. Fill holes with adhesive: Solid or solid-grouted masonry:
  1. Starting at the bottom of the hole, fill hole with adhesive before inserting the reinforcing bar or all thread rod.
  2. Fill hole without creating air voids as nozzle is withdrawn.
  3. Fill hole with sufficient adhesive so that excess is extruded out of the hole when the reinforcing bar or all thread rod is inserted into the hole.
  4. Where metal or plastic screens are required for use in masonry (units with hollow cells or holes, and multi-wythe brick walls), fill screen with adhesive and insert into hole in accordance with manufacturer's recommendations.
- C. Install reinforcing bars and all thread rods:
  1. Install to depth, spacing, and locations as indicated on the Drawings.
  2. Insert bars and all thread rods into hole in accordance with manufacturer's recommended procedures. Confirm that insert has reached the designated embedment in the hole and that adhesive completely surrounds the embedded portion.
  3. Clean excess adhesive from the mouth of the hole.
- D. Curing and loading:
  1. Provide curing conditions recommended by the adhesive manufacturer for the period required to fully cure the adhesive at the actual temperature of the masonry.
  2. Do not disturb or load anchors until manufacturer's recommended cure time has elapsed.

### **3.05 FIELD QUALITY CONTROL BY CONTRACTOR**

- A. Contractor shall provide field quality control as specified in Section 01450 - Quality Control.
- B. Manufacturers' services:
  1. Before beginning installation, furnish adhesive manufacturer's representative to conduct on-site training in proper storage and handling of adhesive, drilling and cleaning of holes, and preparation and installation of reinforcing bars and all thread rods.
    - a. Provide notice of training to Engineer and Special Inspector not less than 10 working days before training occurs. Engineer and Special Inspector may attend training sessions.

- 2. Submit record, signed by the Engineer, listing Contractor's personnel who completed the training. Only qualified personnel who have completed manufacturer's on-site training shall perform installations.
  - 3. Do not install holes or adhesive until training is complete.
- C. Field inspections and testing:
    - 1. Hole drilling and preparation.
    - 2. Results: Submit records to Engineer by electronic copies within 24 hours after completion.

### **3.06 FIELD QUALITY CONTROL BY OWNER**

- A. Provide field quality assurance over the Work of this Section as specified in Section 01455 - Regulatory Quality Assurance.
- B. Special inspection:
  - 1. Provide as specified in Section 01455 - Regulatory Quality Assurance.
  - 2. Unless otherwise indicated on the Drawings or in this Section, provide periodic special inspection as required by the "Conditions of Use" in the Evaluation Report for the product installed.
    - a. Provide continuous inspection of placement of adhesive and insertion of reinforcing bars and all thread rods into adhesive.
  - 3. Preparation:
    - a. Review drawings and specifications for the Work being observed.
    - b. Review adhesive manufacturer's recommended installation instructions..
    - c. Review Evaluation Report "Conditions of Use" and "Special Inspection" requirements.
  - 4. Provide an initial inspection by for each combination of masonry type and reinforcing bar or all thread rod being installed. During initial inspection, observe the following for compliance with installation requirements. Furnish report of inspection that includes the following items.
    - a. Masonry construction: Type and thickness; whether fully or partially grouted; locations and types of voids and holes in units.
    - b. Environment: Temperature and moisture conditions of masonry base material and work area.
    - c. Holes: Locations, spacing, edge distances; verification of drill bit compliance with ANSI B212.15; cleaning equipment and procedures; cleanliness of hole. Before placing adhesive, confirm that depth and preparation of holes conforms to requirements of the Contract Documents, installation recommendations of the manufacturer, and "conditions of use" specified in the Evaluation Report.
    - d. Adhesive: Product manufacturer and name; lot number and expiration date; temperature of product at installation; installation procedures. Note initial set times observed during installation.
    - e. Embedded reinforcing bars and all thread rods: Material diameter and length; steel grade and/or strength; cleaning and preparation; cleanliness at insertion; minimum effective embedment.

5. Subsequent installations of the same reinforcing bars or threaded rods in the same masonry may be performed without the presence of the special inspector, provided that:
  - a. There is no change in the personnel performing the installation, the type or details of the masonry receiving the insert, the adhesive or the reinforcing bars and all thread rods being used. Changes in any of these items shall require a new initial inspection.
  - b. For ongoing installations over a period of time, the special inspector visits the site at least once per day during each day of installation to observe the work for compliance with material requirements and installation procedures.
6. Records of inspections:
  - a. Provide a written record of each inspection using forms acceptable to the Building Official.
  - b. Complete inspection reports within 24 hours after completion of inspection.

END OF SECTION



## SUBMITTED TO:

To \_\_\_\_\_  
Firm \_\_\_\_\_  
Project \_\_\_\_\_  
Date of Submittal \_\_\_\_\_

## PRODUCT SUBMITTAL:

Submitted Product \_\_\_\_\_  
Specified Product \_\_\_\_\_  
Section \_\_\_\_\_ Page \_\_\_\_\_  
Paragraph \_\_\_\_\_ Detail/Sheet No. \_\_\_\_\_  
Description of Application  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## SUBMITTED BY:

Name \_\_\_\_\_ Signature \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

## FOR ARCHITECT/ENGINEER USE:

Approved \_\_\_\_\_ Approved As Noted \_\_\_\_\_ Not Approved \_\_\_\_\_

If not approved, briefly explain  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_  
Remarks \_\_\_\_\_  
\_\_\_\_\_

# ICC-ES Evaluation Report

## ESR-4144



Reissued August 2022

Revised December 2023

This report is subject to renewal August 2024.

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**DIVISION: 04 00 00—MASONRY****Section: 04 05 19.16—Masonry Anchors****REPORT HOLDER:****HILTI, INC.****EVALUATION SUBJECT:****HILTI HIT-HY 270 ADHESIVE ANCHOR SYSTEM IN UNREINFORCED MASONRY**

### 1.0 EVALUATION SCOPE

**Compliance with the following codes:**

- 2021, 2018, and 2015 *International Building Code®* (IBC)
- 2021, 2018, and 2015 *International Residential Code®* (IRC)
- 2021, 2018, and 2015 *International Existing Building Code®* (IEBC)

For evaluation for compliance with codes adopted by the Los Angeles Department of Building Safety (LADBS), see [ESR-4144 LABC, LARC and LAEBC supplement](#).

**Property evaluated:**

Structural

### 2.0 USES

The Hilti HIT-HY 270 Adhesive Anchor System is used to anchor threaded steel rods or deformed steel reinforcement bars in unreinforced brick masonry. Anchors installed in unreinforced masonry with the HIT-HY 270 adhesive system are designed to resist short-term loads imposed by earthquake or wind, as noted in Section 4.0 of this report. The anchor system is an alternative to anchors described in Section 8.1.3 of TMS 402 (2016 or 2013 editions) as referenced in Section 2107 of the 2021, 2018, and 2015 IBC, respectively, as applicable. The anchors are an alternative to bolts described in Section A107.4 and Section A113.1 of the IEBC. The anchor system may also be used where an engineered design is submitted in accordance with Section R301.1.3 of the IRC.

### 3.0 DESCRIPTION

#### 3.1 General:

The Hilti HIT-HY 270 Adhesive Anchor System consists of steel threaded rods or reinforcing bars, plastic mesh screen tube(s), the adhesive, and installation equipment as described in this report.

#### 3.2 Materials:

**3.2.1 Hilti HIT-HY 270 Adhesive:** The Hilti HIT-HY 270 adhesive is an injectable hybrid adhesive mortar consisting of urethane methacrylate resin, hardener, cement and water. The resin and cement are separated from the hardener and water by means of a dual-cylinder foil pack attached to a manifold. An injection nozzle with an internal mixing element is attached to the manifold, and the adhesive components are dispensed through the injection nozzle to ensure proper mixing of the separate adhesive components. The injection nozzle may be replaced to permit multiple uses of the foil packs. Available foil pack sizes include total mixed volumes of 11.1 ounces (330 mL) and 16.9 ounces (500 mL).

The adhesive expiration date is printed on the manifold of each foil pack (month/year). The shelf life, as indicated by the expiration date, is for an unopened foil pack stored in a cool, dry, dark environment at temperatures between 41°F and 77°F (5°C and 25°C). Gel and curing times for the Hilti HIT-HY 270 adhesive and the respective masonry temperature during installation and cure are shown in Table 1.

**3.2.2 Threaded Steel Rods and Reinforcing Bars:** The threaded steel rods are 3/4 inch (19.1 mm) in diameter, and must comply with the minimum mechanical properties of ASTM A307. Alternatively, the 3/4-inch threaded rods may be used in a prebent 22½-degree configuration. Threaded rods are supplied with nuts conforming to ASTM A563, Grade A, hex style, and with washers conforming to ANSI B 18.22.1, type A, Plain. The steel reinforcing bars are No. 4, No. 5, or No. 6 deformed bars complying with ASTM A615, A706, A767, or A996, Grade 60.

**3.2.3 Plastic Mesh Screen Tubes:** The mesh screen tubes are plastic with a black driving collar at the open end. They are available in diameters and lengths as described in Section 4.1. Different lengths can be achieved by assembling multiple screen tubes together, as depicted in Figure 3.

#### 3.3 Unreinforced Masonry:

The existing unreinforced masonry walls must have a minimum nominal thickness of 13 inches (330 mm) [three wythes of brick]. The average in-place mortar shear strength of the building's unreinforced masonry determined in accordance with Section A106.2.3 (2021 and 2018 IEBC) or A106.3.3 (2015 IEBC), as applicable, must be no less than 50 psi (345 kPa) net.

## 4.0 DESIGN AND INSTALLATION

### 4.1 General:

Two types of anchor assemblies are available: Configuration A (shear anchor or rebar dowel) and Configuration B (22½-degree combination anchor).

**4.1.1 Configuration A, Threaded Rods or Steel Reinforcing Bars in Shear (Shear Anchor or Rebar Dowel):** Configuration A is the anchor assembly resisting shear loads only. Configuration A consists of a ¾-inch-diameter (19.1 mm), ASTM A307 threaded rod or a No. 4, No. 5 or No. 6 reinforcing bar and a 1-inch-diameter-by-8-inch-long (26 mm by 200 mm) plastic-mesh screen tube (HIT-SC 26x200). Figure 1 shows details of an installed shear-resisting assembly.

**4.1.2 Configuration B, Bent Threaded Rods in Shear and Tension (22½-degree Combination Anchor):**

Configuration B is the anchor assembly resisting a combination of tension and shear loads. Configuration B consists of a ¾-inch-diameter (19.1 mm), ASTM A307 threaded rod prebent at an angle of 22½ degrees and a 1-inch-diameter-by-13-inch-long (26 mm by 325 mm) plastic-mesh screen tube obtained by combining 1-inch-diameter-by-8-inch-long (26 mm by 200 mm) and 1-inch-diameter-by-5-inch-long (26 mm by 125 mm) plastic-mesh screen tubes (HIT-SC 26x200 and HIT-SC 26x125). The anchor must be embedded a minimum of 13 inches (330 mm) at a downward angle of 22½ degrees to the horizontal. Figure 2 shows details of an installed shear- and tension-resisting assembly.

### 4.2 Design:

The Hilti HIT-HY 270 adhesive anchors are intended to resist only short-term loads imposed by wind or earthquake. The anchors must be approved by a registered design professional and installed under special inspection in accordance with Section 4.5 of this report. The edge distance and vertical and horizontal spacing for the two types of anchor assemblies described in Section 4.1 must comply with Table 2.

Conditions of acceptance for threaded rods and reinforcing bars in unreinforced brick masonry are as follows:

**4.2.1 Configuration A, Threaded Rods or Steel Reinforcing Bars in Shear (Shear Anchor or Rebar Dowel):**

- Installation of assemblies using threaded rods or reinforcing bars intended to resist shear loads only must comply with Sections 4.1 and 4.3, and Figure 3 of this report.
- The allowable shear load for the ¾-inch-diameter (19.1 mm) threaded rod is 1,000 pounds (4450 N), as shown in Table 3. The allowable shear loads for the No. 4, No. 5, and No. 6 reinforcing bars are 500, 750, and 1,000 pounds (2225, 3338, and 4450 N), respectively, as shown in Table 3. No adjustment for wind or earthquake loading is permitted.
- The allowable shear loads noted above are applicable only to anchors installed in walls where in-place shear tests indicate a minimum mortar strength of 50 psi (345 kPa) net in accordance with Section A106.2.3 (2021 and 2018 IEBC) or A106.3.3 (2015 IEBC), as applicable.

**4.2.2 Configuration B, Bent Threaded Rods in Shear and Tension (22½-degree Combination Anchor):**

- Installation of assemblies using prebent threaded rods intended to resist a combination of tension and shear

loads must comply with Sections 4.1 and 4.3, and Figure 3 of this report.

- The maximum allowable tension load for the ¾-inch-diameter (19.1 mm) prebent threaded rod (Configuration B) is 1,200 pounds (5340 N), as shown in Table 3. No adjustment for wind or earthquake loading is permitted.
- The maximum allowable shear load for the ¾-inch-diameter (19.1 mm) prebent threaded rod (Configuration B) is 1,000 pounds (4,450 N), as shown in Table 3. No adjustment for wind or earthquake loading is permitted.
- The maximum allowable load for the bent rod anchors subjected to combined tension and shear loads is determined by the following equation:

$$\left(\frac{P_s}{P_t}\right) + \left(\frac{V_s}{V_t}\right) \leq 1.0$$

where:

$P_s$  = Applied tension load

$P_t$  = Allowable tension load

$V_s$  = Applied shear load

$V_t$  = Allowable shear load

- The allowable tension and shear values as determined above are applicable only to anchors installed in walls where in-place shear tests indicate minimum mortar strength of 50 psi (345 kPa) net in accordance with Section A106.2.3 (2021 and 2018 IEBC) or A106.3.3 (2015 IEBC), as applicable

### 4.3 Installation:

**4.3.1 General:** 1-inch-diameter (25.4 mm) holes must be drilled using standard carbide-tipped masonry drill bits complying with ANSI Specification B212.15-1994, or diamond core drill bits, as detailed in Figure 3 of this report. Holes must be drilled using a rotary drill or a rotary hammer drill set on “rotation only”, or core drill, as applicable. Impact tools are not permitted. Assembly installation must be in accordance with Section 4.3.2 or 4.3.3, and Figure 3 of this report. The adhesive must be allowed to cure for the full curing time listed in Table 1 before anchors are loaded. Cure time refers to that period of cure after which hardware may be placed and nuts tightened. Design loads may not be applied until the full curing time has transpired. Installation must not occur when masonry temperatures are below 41 °F (5 °C). The Hilti HIT-HY 270 Adhesive Anchor System is intended to resist only short-term loads imposed by wind or earthquake. The anchors must be approved by the registered professional and installed under special inspection in accordance with Section 4.5 of this report. The edge distance, and vertical and horizontal spacing for all anchor configurations described in Sections 4.3.2 and 4.3.3 of this report, must comply with Table 2.

**4.3.2 Configuration A:** Holes for threaded rods or reinforcing bars intended to resist shear only must be drilled perpendicular to the wall to a minimum embedment depth of 8 inches (203 mm). The holes must be cleaned in accordance with Figure 3 of this report to remove debris. The Hilti HIT-HY 270 adhesive must be injected into the supplied plastic mesh screen tube that is then inserted into the predrilled hole. The threaded rod or reinforcing bar must be inserted and pushed into the screen tube in a rotating manner to force the adhesive into the hole. Figure 1 illustrates an anchor installed in this configuration. Figure 3 illustrates the Manufacturer’s Published Installation Instructions (MPII).

**4.3.3 Configuration B:** Holes for installation of assemblies using prebent threaded rods intended to resist shear and tension must be drilled at a 22½-degree angle to within 1 inch (25.4 mm) of the opposing surface. The holes must be cleaned in accordance with Figure 3 of this report to remove debris. The Hilti HIT-HY 270 adhesive must be injected into the supplied plastic mesh screen tube that is then inserted into the predrilled hole. The prebent threaded rod must be inserted and pushed into the screen tube in a rotating manner to force the adhesive into the hole. Figure 2 illustrates an anchor installed in this configuration. Figure 3 illustrates the MPII.

#### 4.4 Field Tests:

- Tests for in-place mortar shear strength of the building must be done in accordance with Section A106.2.3 (2021 and 2018 IEBC) or A106.3.3 (2015 IEBC), as applicable. In-place mortar shear strength testing must indicate a minimum mortar strength of 50 psi (345 kPa).
- Anchors resisting tension forces or a combination of tension and shear forces must be tested in accordance with Section A107.5 of the IEBC. The test report must include:
  - Test location(s)
  - Brick/mortar condition
  - Bolt movement/elongation
  - Embedment depth and masonry wall thickness
  - Applied load, loading procedure, load increments, and rate of loading.

#### 4.5 Special Inspection:

**4.5.1 IBC and IRC:** Continuous special inspection must be performed in accordance with Sections 1704 and 1705 of the IBC.

**4.5.2 IEBC:** Periodic inspection, direct-tension tests, and calibrated torque wrench tests must be performed in accordance with Section A107.5 of the IEBC. In lieu of testing and periodic inspection, the IEBC permits continuous special inspection during installation of bolts resisting shear forces only.

### 5.0 CONDITIONS OF USE

The Hilti HIT-HY 270 Adhesive Anchoring System for Unreinforced Masonry described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- Use and installation must be as set forth in this evaluation report and the Manufacturer's Published Installation Instructions (MPII) illustrated in Figure 3 of this report. In case of conflict, this report governs.
- Calculations and details must be submitted to the code official for approval.
- Special inspection must be in accordance with Section 4.5 of this evaluation report.

5.4 Use of the anchor system must be approved by the registered design professional.

5.5 The existing mortar shall have a minimum in-place shear strength of 50 psi (345 kPa) in accordance with Section 3.3 of this report prior to installation of the adhesive anchors.

5.6 Anchors must be limited to resisting transient wind or seismic loads only.

5.7 Anchors are installed in holes predrilled with a carbide-tipped masonry drill bit complying with ANSI B212.15-1994, or diamond core drill bits, in accordance with Figure 3 of this report. Impact tools must not be used for drilling holes or for tightening steel anchors or nuts.

5.8 The adhesive is not used after the expiration date stamped on the cartridge.

5.9 The Hilti HIT-HY 270 adhesive is manufactured by Hilti GmbH in Kaufering, Germany, under a quality control program with inspections by ICC-ES.

5.10 The Hilti HIT-SC screens are manufactured by Herbert Kaut GmbH & Co. KG in Sigmaringen, Germany, under a quality-control program with inspections by ICC-ES.

### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Adhesive Anchors in Unreinforced Masonry Elements (AC60), dated December 2009 (editorially revised March 2021); and quality-control documentation.

### 7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4144) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 In addition, Hilti HIT-HY 270 adhesive cartridges are identified by a label displaying the product name, , lot number, expiration date, a description of the product, , and installation instructions. The Hilti HIT-SC screens are identified by a label displaying the product name, , lot number, a description of the product, and installation instructions. Threaded rods, nuts, washers, and deformed reinforcing bars are standard elements and must conform to applicable national or international specifications.

7.3 The report holder's contact information is the following:

**HILTI, INC.**  
**7250 DALLAS PARKWAY, SUITE 1000**  
**PLANO, TEXAS 75024**  
**(800) 879-8000**  
[www.us.hilti.com](http://www.us.hilti.com)  
[HiltiTechEng@us.hilti.com](mailto:HiltiTechEng@us.hilti.com)

**TABLE 1—HILTI'S GEL AND CURING TIMES FOR HILTI HIT-HY 270 ADHESIVE**

MINIMUM BASE MATERIAL TEMPERATURE <sup>1</sup>		GEL TIME <sup>2</sup>	CURING TIME <sup>3</sup>
°F	°C		
41	5	10 minutes	4 hours
42-50	6-10	7 minutes	2.5 hours
51-68	11-20	4 minutes	1.5 hours
69-86	21-30	2 minutes	30 minutes
87-104	31-40	1 minute	20 minutes

For SI: °C =  $\frac{5}{9}$ (°F – 32).

<sup>1</sup>The temperatures listed above refer to the base-material temperature, not ambient air temperature.

<sup>2</sup>The anchors may be adjusted during the gel time following installation.

<sup>3</sup>Anchors must not be disturbed between gel time and curing time. The anchors may be loaded after the full curing time has elapsed.

**TABLE 2—SPACING AND EDGE DISTANCE REQUIREMENTS FOR HILTI HIT-HY 270 ADHESIVE INSTALLED IN UNREINFORCED BRICK MASONRY**

ANCHOR ASSEMBLY	MINIMUM VERTICAL SPACING (inches)	MINIMUM HORIZONTAL SPACING (inches)	MINIMUM EDGE DISTANCE (inches)
Configuration A, Threaded Rods or Reinforcing Bars in Shear (see Figure 1)	16	16	16
Configuration B, Bent Threaded Rods in Shear and Tension (22½° Combination Anchor) (see Figure 2)	16	16	16

For SI: 1 inch = 25.4 mm.

**TABLE 3—ALLOWABLE TENSION AND SHEAR LOADS FOR THREADED RODS AND REINFORCING BARS FOR HILTI HIT-HY 270 ADHESIVE INSTALLED IN UNREINFORCED BRICK MASONRY<sup>1,2</sup>**

CONFIGURATION A – SHEAR ANCHOR OR REBAR DOWEL (FIGURE 1)				
Threaded Rod Dia. (inch) or Rebar Size	Minimum Embedment (inches)	Minimum Wall Thickness (inches)	Allowable Tension Load (pounds)	Allowable Shear Load (pounds)
3/4	8	13	-	1,000
No. 4	8	13	-	500
No. 5	8	13	-	750
No. 6	8	13	-	1,000
CONFIGURATION B – 22½° COMBINATION ANCHOR (FIGURE 2)				
Threaded Rod Dia. (inch)	Minimum Embedment	Minimum Wall Thickness (inches)	Allowable Tension Load <sup>3</sup> (pounds)	Allowable Shear Load (pounds)
3/4	Within 1 inch of opposite wall surface	13	1,200	1,000

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 foot-pound = 1.356 N·m, 1 psi = 6.89 Pa.

<sup>1</sup>Allowable load values are applicable only to anchors where in-place shear tests indicate minimum mortar strength of 50 psi, net.

<sup>2</sup>No increase for short-term loading is permitted, such as loading induced by wind or earthquake.

<sup>3</sup>Anchors must be tested in accordance with Section 4.4 for use with the IEBC.

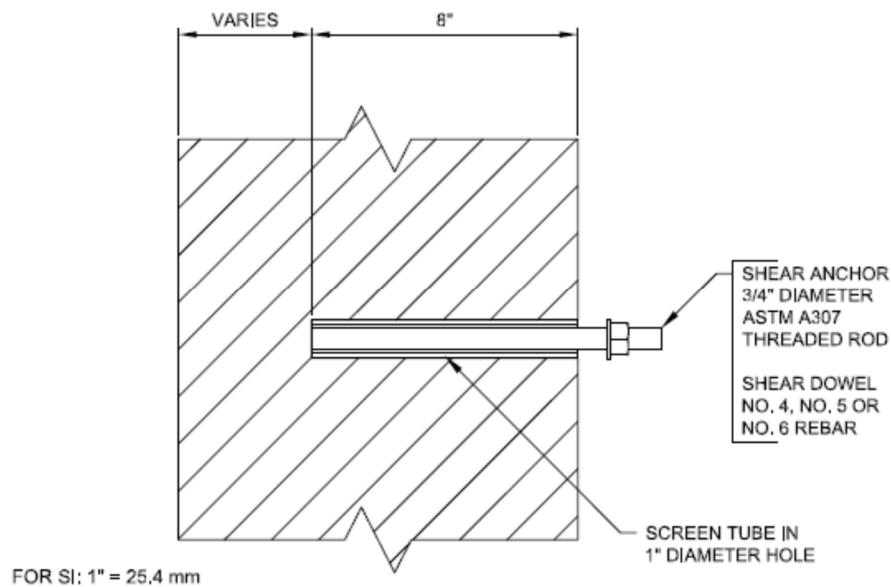


FIGURE 1—HILTI HIT-HY 270 ADHESIVE SHEAR ANCHOR OR DOWEL (CONFIGURATION A)

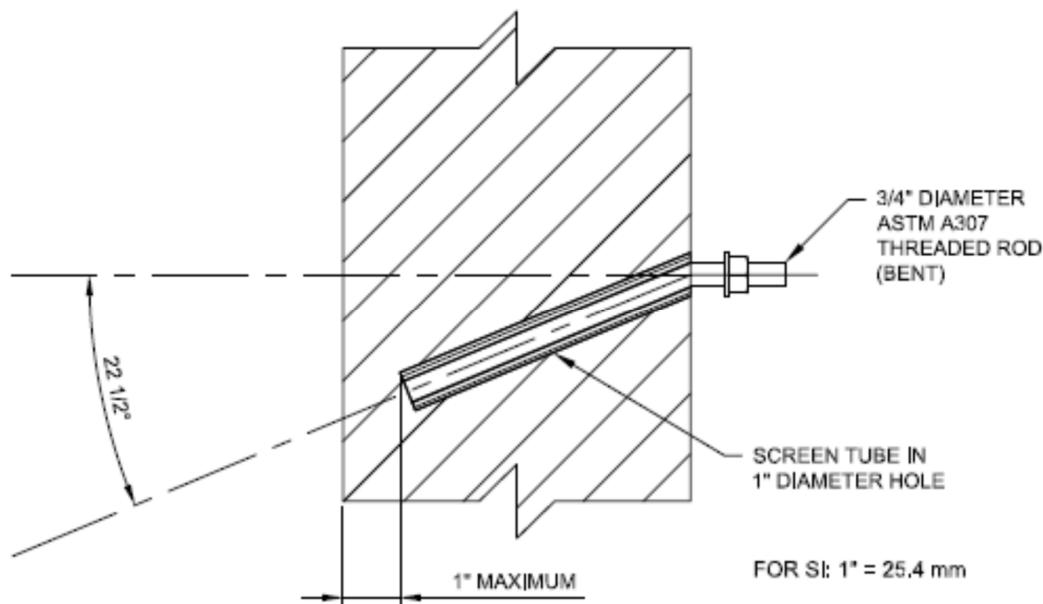


FIGURE 2—HILTI HIT-HY 270 ADHESIVE 22 1/2° COMBINATION ANCHOR (CONFIGURATION B)

**HILTI**

**Hilti HIT-HY 270**

Instruction for use  
Mode d'emploi  
Manual de instrucciones  
Instruções de utilização

**Danger**

Contains: methacrylates (A), dibenzoyl peroxide (B), boric acid (A), 4-tert-butylpyrocatechol (A)

May cause an allergic skin reaction. (A,B)  
Causes serious eye irritation. (A)  
May damage fertility or the unborn child. (A)  
Very toxic to aquatic life with long lasting effects. (B)  
Harmful to aquatic life with long lasting effects. (A)

**ICC ESR - 4143**  
**ICC ESR - 4144**

**HAS**

HAS	HIT-SC	$d_0$ [inch]	$h_0$ [inch]	$h_{eff}$ [inch]	HIT-RB	$d_f$ [inch]	$T_{inst}$ [ft lb]
$\frac{3}{4}$	$\frac{26x200}{+26x200}$	1	$8\frac{1}{4}$	8	1	$1\frac{3}{16}$	$\leq 60$
	$\frac{26x125}{+26x125}$		$13\frac{1}{4}$	13			

**Rebar**

Rebar	HIT-SC	$d_0$ [inch]	$h_0$ [inch]	$h_{eff}$ [inch]	HIT-RB
#4	$\frac{26x200}{+26x200}$	1	$8\frac{1}{4}$	8	1
#5					
#6					

**Drilling with hammer drill and carbide tipped hammer drill bit**

**Drilling with diamond core bit**

FIGURE 3—HILTI HIT-HY 270 ADHESIVE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII)

**Hilti HIT-HY 270****Adhesive anchoring system for rebar and anchor fastenings.**

For use in hollow and solid masonry of clay brick, concrete block and multi wythe wall.

**Hilti HIT-HY 270**

Contains: methacrylates, dibenzoyl peroxide, boric acid



(A, B)



(A)



(B)

**Danger**

H315 Causes skin irritation.(A)

H317 May cause an allergic skin reaction.(A,B)

H319 Causes serious eye irritation.(A)

H360 May damage fertility or the unborn child.(A)

H400 Very toxic to aquatic life (B)

H412 Harmful to aquatic life with long lasting effects.(A)

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF ON SKIN: Wash with plenty of soap and water.

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

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

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

**Disposal considerations****Empty packs:**

► Leave the mixer attached and dispose of via the local Green Dot recovery system or EAK waste material code: 150102 plastic packaging

**Full or partially emptied packs:**► Must be disposed of as special waste in accordance with official regulations.  
EAK waste material code: 08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances, or EAK waste material code: 20 01 27\* paint, inks, adhesives and resins containing dangerous substances.**Warranty:** Refer to standard Hilti terms and conditions of sale for warranty information.

Failure to observe these installation instructions, use of non-Hilti anchors, poor or questionable base material conditions, or unique applications may affect the reliability or performance of the fastenings.

**Content:** 11.1 fl.oz. / 330 ml

16.9 fl. oz / 500 ml

**Weight:** 20.8 oz / 590 g

28.9 oz / 820 g

**Hilti HIT-HY 27****Product Information**

- Always keep these instructions together with the product even when given to other persons.
- Check expiration date: See imprint on foil pack manifold (month/year). Do not use expired product.
- Foil pack temperature during usage: between 41 °F and 104 °F / +5 °C and 40 °C.
- Base material temperature at time of installation: between 23 °F and 104 °F / -5 °C and 40 °C.  
**Exception in hollow, solid and multi-wythe solid clay brick:** between 41°F and 104°F / +5°C and 40°C.
- Conditions for transport and storage: Keep in a cool, dry and dark place between 41 °F and 77 °F / 5°C and 25°C.
- For any application not covered by this document / beyond values specified, please contact Hilti.
- Partly used foil packs must remain in the cassette and has to be used within 4 weeks. Leave the mixer attached on the foil pack manifold and store within the cassette under the recommended storage conditions. If reused, attach a new mixer and discard the initial quantity of anchor adhesive.

**NOTICE****Improper handling may cause mortar splashes.**

- Always wear safety glasses, gloves and protective clothes during installation.
- Never start dispensing without a mixer properly screwed on.
- Attach a new mixer prior to dispensing a new foil pack (ensure snug fit).
- Use only the type of mixer (HT-RE-M) supplied with the adhesive. Do not modify the mixer in any way.
- Never use damaged foil packs and/or damaged or unclean foil pack holders (cassettes).

**Poor load values / potential failure of fastening points due to inadequate borehole cleaning.**

- The boreholes must be free of debris, dust, water, ice, oil, grease and other contaminants prior to adhesive injection.
- For blowing out the borehole – blow out with oil free air until return air stream is free of noticeable dust.
- For brushing the borehole – only use specified wire brush. The brush must resist insertion into the borehole – if not the brush is too small and must be replaced.

**Borehole filling in solid masonry:** Ensure that boreholes are filled from the back of the borehole without forming air voids. If necessary use the accessories / extensions to reach the back of the borehole.**Borehole filling in hollow masonry:** Use a mesh sleeve. Fill the mesh sleeve with mortar from the centering cap until mortar escapes at the centering cap (filling control).**Multi-Wythe Solid Brick application: HIT-SC sieve sleeves / sieve sleeve combinations have to be filled outside the bore hole:** Push the mixer to the bottom of the last mesh sleeve (use mixer extension if necessary). Inject the anchor adhesive starting at the bottom of the last mesh sleeve while slowly withdrawing the mixing nozzle towards the centering cap, step by step, after each pull of the trigger. HIT-SC sieve sleeves have to be filled completely without forming air voids until anchor adhesive escapes at the centering cap (filling control).**Not adhering to these setting instructions can result in failure of fastening points!****FIGURE 3—HILTI HIT-HY 270 ADHESIVE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII) (Continued)**

Reissued August 2022

Revised December 2023

This report is subject to renewal August 2024.

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**DIVISION: 04 00 00—MASONRY****Section: 04 05 19.16—Masonry Anchors****REPORT HOLDER:****HILTI, INC.****EVALUATION SUBJECT:****HILTI HIT-HY 270 ADHESIVE ANCHOR SYSTEM IN UNREINFORCED MASONRY****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the Hilti HIT-HY 270 Adhesive Anchor System in unreinforced masonry, described in ICC-ES evaluation report [ESR-4144](#), has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

**Applicable code editions:**

- 2023 City of Los Angeles Building Code (LABC)
- 2023 City of Los Angeles Residential Code (LARC)
- 2023 City of Los Angeles Existing Building Code (LAEBC)

**2.0 CONCLUSIONS**

The Hilti HIT-HY 270 Adhesive Anchor System in unreinforced masonry, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4144](#), complies with the LABC Chapters 21 and 88, LAEBC Appendix A Chapter A1, and the LARC, and is subject to the conditions of use described in this supplement.

**3.0 CONDITIONS OF USE**

The Hilti HIT-HY 270 Adhesive Anchor System in unreinforced masonry described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-4144](#).
- The design, installation, conditions of use and identification of the anchors are in accordance with the 2021 *International Building Code*® (2021 IBC) and the 2018 *International Existing Building Code*® (2021 IEBC) provisions noted in the evaluation report [ESR-4144](#).
- The design, installation, testing and inspection are in accordance with additional requirements of LABC Chapters 16, 17, 21, 88, LAEBC Appendix Chapter A1, as applicable, including LABC Sections 1704, 1705, 2107, and LAEBC Sections A106, A107, and A108, and the LADBS Information Bulletin P/BC 2020-092.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 and additional requirements noted in this supplement must be submitted.
- The allowable load values listed in the evaluation report and tables are for the connection of the adhesive anchors to the unreinforced masonry. The connection between the adhesive anchors and the connected members must be checked for capacity (which may govern).

This supplement expires concurrently with the evaluation report, reissued August 2022 and revised December 2023.



The following excerpt are pages from the North American Product Technical Guide, Volume 2: Anchor Fastening, Edition 22.

Please refer to the publication in its entirety for complete details on this product including data development, product specifications, general suitability, installation, corrosion and spacing and edge distance guidelines.

US&CA: <https://submittals.us.hilti.com/PTGVol2/>

To consult directly with a team member regarding our anchor fastening products, contact Hilti's team of technical support specialists between the hours of 7:00am – 6:00pm CST.

US: 877-749-6337 or [HNATechnicalServices@hilti.com](mailto:HNATechnicalServices@hilti.com)

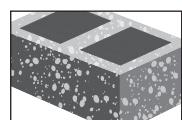
CA: 1-800-363-4458, ext. 6 or [CATechnicalServices@hilti.com](mailto:CATechnicalServices@hilti.com)

## 3.2.4 HIT-HY 270 HYBRID FOR MASONRY CONSTRUCTION

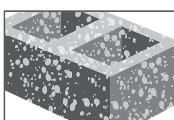
### PRODUCT DESCRIPTION

#### HIT-HY 270 with Threaded Rod, Rebar, and HIS-N/RN Inserts

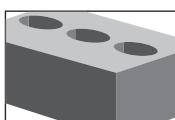
Anchor System	Features and Benefits
	<p>Hilti HIT-HY 270 Cartridge</p> <ul style="list-style-type: none"> <li>Injectable two-component hybrid adhesive mortar</li> </ul>
	<p>Hilti HAS Threaded Rods</p> <ul style="list-style-type: none"> <li>For use in grouted and ungrouted concrete masonry block walls, solid and hollow brick walls and unreinforced multi-wythe brick walls referred to as unreinforced masonry or URM.</li> <li>ICC-ES approved for grout-filled and ungrouted concrete masonry and hollow brick</li> <li>ICC-ES approved for unreinforced masonry (URM)</li> <li>No hole cleaning requirement when installed with SafeSet™ hollow drill bit technology</li> </ul>
	<p>Rebar</p>
	<p>Mesh sleeve HIT-SC</p>
	<p>Hilti HIS-N/RN</p>



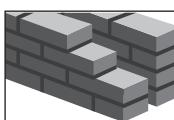
Grout-filled  
concrete masonry



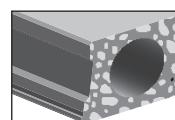
Ungrouted  
concrete masonry



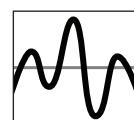
Hollow brick



Unreinforced  
masonry



Hollowcore  
concrete



Seismic Design  
categories A-F



Hollow drill bit

Approvals/Listings	
<b>ICC-ES (International Code Council)</b>	ESR-4143 in hollow and grout-filled CMU and hollow brick per ICC-ES AC58 ESR-4144 in unreinforced masonry per ICC-ES AC60
<b>European Technical Approval</b>	ETA-13/1036
<b>City of Los Angeles</b>	2017 LABC Supplement (within ESR-4143 and ESR-4144)
<b>Florida Building Code</b>	2017 FBC Supplement (within ESR-4143) w/ HVHZ
<b>U.S. Green Building Council</b>	LEED® Credit 4.1-Low Emitting Materials



## DESIGN DATA IN MASONRY

### HIT-HY 270 adhesive with Hilti HAS threaded rods and deformed reinforcing bars (Rebar)



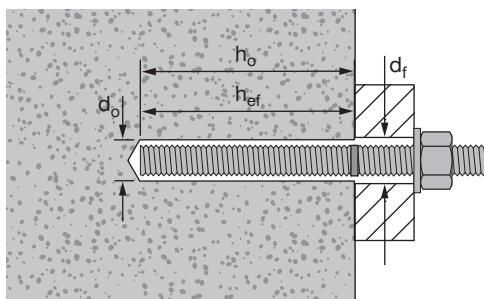
Hilti HAS Threaded Rods



Deformed Reinforcing Bars (Rebar)

Permissible Base Materials		Grout-filled concrete masonry	Permissible drilling method		Hammer drilling with carbide tipped drill bit
					Hilti TE-CD or TE-YD hollow drill bit (for diameters 1/2" - 3/4")

**Figure 1 — Hilti HIT-HY 270 specifications for HAS threaded rod and reinforcing bars in grout-filled concrete masonry walls**



#### Hilti installation specifications for HAS threaded rod in grout-filled concrete masonry walls

Setting information	Symbol	Units	Nominal rod diameter (in.)			
			3/8	1/2	5/8	3/4
Nominal bit diameter	$d_o$	in.	7/16	9/16	3/4	7/8
Nominal / effective embedment	$h_o / h_{ef}$	in. (mm)	3-3/8 (86)	4-1/2 (114)	5-5/8 (143)	6-3/4 (171)
Maximum installation torque	$T_{inst}$	ft-lb (Nm)	6 (8)	7.5 (10)	7.5 (10)	10 (13.5)
Diameter of fixture hole	$d_f$	in.	7/16	9/16	11/16	13/16

#### Hilti installation specifications for reinforcing bars in grout-filled concrete masonry walls

Setting information	Symbol	Units	Rebar size			
			#3	#4	#5	#6
Nominal bit diameter	$d_o$	in.	1/2	5/8	3/4	7/8
Nominal / effective embedment	$h_o / h_{ef}$	in. (mm)	3-3/8 (86)	4-1/2 (114)	5-5/8 (143)	6-3/4 (171)

## MATERIAL SPECIFICATIONS

### Table 1 — Properties of fully-cured HIT-HY 270 adhesive

Compressive strength	ASTM D695/DIN 53454	7,252-10,153 psi	50-70 MPa
Modulus of elasticity (Compression test)	ASTM D790/DIN 53452	246,568 psi	1,700 MPa
Water absorption	ASTM D570/DIN 53495		3 - 8%
Electrical resistance	VDE/DIN 0303T3	$4.2 \times 10^{10}$ ohm/in.	$1.065 \times 10^{12}$ ohm/cm

Material specifications for Hilti HAS threaded rods and Hilti HIS-N inserts are listed in section 3.2.8.

**Table 2 — Hilti HIT-HY 270 allowable adhesive bond tension loads for threaded rods and reinforcing bars in the face of grout-filled concrete masonry walls<sup>1,2,3,4,5,6,7,8</sup>**

Nominal anchor diameter	Rebar size	Effective embedment in. (mm) <sup>11</sup>	Tension lb (kN)	Spacing <sup>9</sup>			Edge distance <sup>10</sup>		
				Critical s <sub>cr</sub> in. (mm)	Minimum s <sub>min</sub> in. (mm)	Load reduction factor @ s <sub>min</sub> <sup>12</sup>	Critical c <sub>cr</sub> in. (mm)	Minimum c <sub>min</sub> in. (mm)	Load reduction factor @ c <sub>min</sub> <sup>12</sup>
3/8	#3	3-3/8 (86)	1,240 (5.5)	13.5 (343)	4 (102)	0.70	12 (305)	4 (102)	0.80
1/2	#4	4-1/2 (114)	2,035 (9.1)	18 (457)		0.70	20 (508)		0.76
5/8	#5	5-5/8 (143)	2,840 (12.6)	22.5 (572)		0.50	20 (508)		0.71
3/4	#6	6-3/4 (171)	3,810 (16.9)	27 (686)		0.50	20 (508)		0.66

3.2.4

**Table 3 — Hilti HIT-HY 270 allowable adhesive bond shear loads for threaded rods and reinforcing bars in the face of grout-filled concrete masonry walls<sup>1,2,3,4,5,6,7,8</sup>**

Nominal anchor diameter	Rebar size	Effective embedment in. (mm) <sup>11</sup>	Shear lb (kN)	Spacing <sup>9</sup>			Edge distance <sup>10</sup>		
				Critical s <sub>cr</sub> in. (mm)	Minimum s <sub>min</sub> in. (mm)	Load reduction factor @ s <sub>min</sub> <sup>12</sup>	Critical c <sub>cr</sub> in. (mm)	Minimum c <sub>min</sub> in. (mm)	Load reduction factor @ c <sub>min</sub> <sup>12</sup>
									Load perpendicular to edge
3/8	#3	3-3/8 (86)	850 (3.8)	13.5 (343)	4 (102)	1.00	12 (305)	4 (102)	0.88
1/2	#4	4-1/2 (114)	1,495 (6.7)	18 (457)		1.00	12 (305)		0.49
5/8	#5	5-5/8 (143)	2,615 (11.6)	22.5 (572)		0.50	20 (508)		0.40
3/4	#6	6-3/4 (171)	4,090 (18.2)	27 (686)		0.50	20 (508)		0.26

The following footnotes apply to both Tables 1 and 2:

- All values are for anchors installed in fully grouted concrete masonry with minimum masonry prism strength of 1,500 psi. Concrete masonry units shall be lightweight, medium-weight or heavy-weight conforming to ASTM C90. Allowable loads are calculated using a safety factor of 5.
- Anchors may be installed in any location in the face of the masonry wall including cell, web, and mortar joints. Anchors are limited to one per masonry cell. See Figure 2.
- Linear interpolation of load values between minimum spacing (s<sub>min</sub>) and critical spacing (s<sub>cr</sub>) and between minimum edge distance (c<sub>min</sub>) and critical edge distance (c<sub>cr</sub>) is permitted.
- Concrete masonry thickness must be equal to or greater than 1.5 times the anchor embedment depth. EXCEPTION: the 5/8-inch- and the 3/4-inch diameter anchors (No. 5 and No. 6 bars) may be installed in minimum nominally 8-inch thick concrete masonry.
- When using the basic load combinations in accordance with IBC Section 1605.3.1, tabulated allowable loads must not be increased for seismic or wind loading. When using the alternative basic load combinations in IBC Section 1605.3.2 that include seismic or wind loads, tabulated allowable loads may be increased by 33-1/3 percent, or the alternative basic load combinations may be reduced by a factor of 0.75.
- Allowable loads must be the lesser of the adjusted masonry or bond tabulated values and the steel values given in tables 3 and 4.
- Tabulated allowable loads shall be adjusted for increased base material temperatures in accordance with figure 13.
- For combined loading:  $(T_{\text{applied}} / T_{\text{allowable}})^n + (V_{\text{applied}} / V_{\text{allowable}})^n \leq 1$  where n = 5/3 for 3/8- and 1/2-inch diameters (#3 and #4 rebar) and n = 1 for 5/8- and 3/4-inch diameters (#5 and #6 rebar).
- The critical spacing, s<sub>cr</sub>, is the anchor spacing where full load values may be used. The minimum spacing, s<sub>min</sub>, is the minimum anchor spacing for which values are available and installation is recommended. Spacing is measured from the center of one anchor to the center of an adjacent anchor.
- The critical edge distance, c<sub>cr</sub>, is the edge distance where full load values may be used. The minimum edge distance, c<sub>min</sub>, is the minimum edge distance for which values are available and installation is recommended. Edge distance is measured from the center of the anchor to the closest edge.
- Embedment depth is measured from the outside face of the concrete masonry unit.
- Load reduction factors are multiplicative: both spacing and edge distance load reduction factors, and spacing and edge distances for all adjacent anchors/edges less than s<sub>cr</sub>/c<sub>cr</sub>, must be considered. Load values for anchors installed at less than s<sub>cr</sub> and c<sub>cr</sub> must be multiplied by the appropriate load reduction factor based on actual edge distance (c) and spacing (s).

**Table 4 — Allowable steel strength for Hilti HAS threaded rods<sup>1</sup>**

Nominal anchor diameter in.	ASTM A307 Grade A		HAS-V-36 / HAS-V-36 HDG ASTM F1554 Gr. 36 <sup>2</sup>		HAS-E-55 / HAS-E-55 HDG ASTM F1554 Gr. 55 <sup>2</sup>		HAS-B-105 and HAS-B-105 HDG ASTM A193 B7 and ASTM F 1554 Gr. 105 <sup>2</sup>		HAS-R Stainless Steel ASTM F593 (3/8-in to 1-in) ASTM A193 (1/4 and 1-1/8-in to 2-in)	
	Tensile lb (kN)	Shear lb (kN)	Tensile lb (kN)	Shear lb (kN)	Tensile lb (kN)	Shear lb (kN)	Tensile lb (kN)	Shear lb (kN)	Tensile lb (kN)	Shear lb (kN)
1/4	970 (4.3)	500 (2.2)	-	-	-	-	-	-	925 (4.1)	475 (2.1)
5/16	1,520 (6.8)	780 (3.5)	-	-	-	-	-	-	1,445 (6.4)	745 (3.3)
3/8	-	-	2,115 (9.4)	1,090 (4.8)	2,730 (12.1)	1,410 (6.3)	4,555 (20.3)	2,345 (10.4)	3,645 (16.2)	1,875 (8.3)
1/2	-	-	3,755 (16.7)	1,935 (8.6)	4,860 (21.6)	2,505 (11.1)	8,095 (36.0)	4,170 (18.5)	6,480 (28.8)	3,335 (14.8)
5/8	-	-	5,870 (26.1)	3,025 (13.5)	7,595 (33.8)	3,910 (17.4)	12,655 (56.3)	6,520 (29.0)	10,125 (45.0)	5,215 (23.2)
3/4	-	-	8,455 (37.6)	4,355 (19.4)	10,935 (48.6)	5,635 (25.1)	18,225 (81.1)	9,390 (41.8)	12,390 (55.1)	6,385 (28.4)

1 Steel strength as defined in AISC Manual of Steel Construction (ASD):

Tensile =  $0.33 \times F_u \times \text{Nominal Area}$

Shear =  $0.17 \times F_u \times \text{Nominal Area}$

2 3/8-inch dia. threaded rods are not included in the ASTM F1554 standard. Hilti 3/8-inch dia. HAS-V, HAS-E, and HAS-E-B (incl. HDG) threaded rods meet the chemical composition and mechanical property requirements of ASTM F1554.

**Table 5 — Hilti HIT-HY 270 allowable tension and shear values for reinforcing bars based on steel strength<sup>1,2,3</sup>**

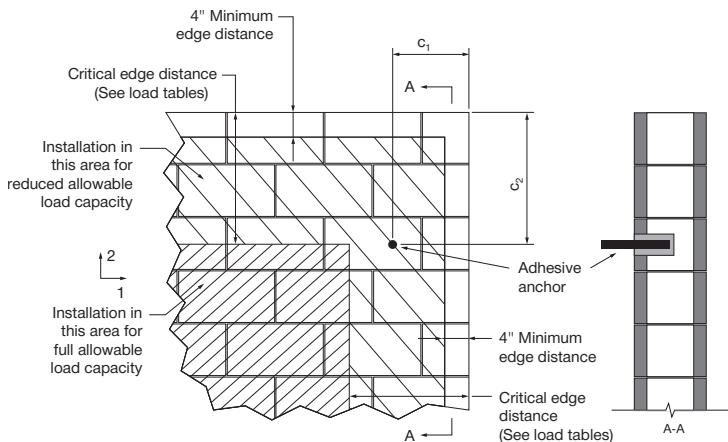
Rebar size	Tension lb (kN)		Shear lb (kN)	
	ASTM A615, GRADE 60		ASTM A615, GRADE 60	
#3	2,905 (12.9)		1,495 (6.7)	
#4	5,280 (23.5)		2,720 (12.1)	
#5	8,185 (36.4)		4,215 (18.7)	
#6	11,615 (51.7)		5,985 (26.6)	

The following footnotes apply to both Tables 3 and 4:

1 Allowable load used in the design must be the lesser of bond values and tabulated steel values.

2 The allowable tension and shear values for threaded rods to resist short term loads, such as wind or seismic, must be calculated in accordance with the appropriate IBC Sections.

3 Allowable steel loads are based on tension and shear stresses equal to  $0.33 \times F_u$  and  $0.17 \times F_u$ , respectively.

**Figure 2 — Allowable anchor installation locations in the face of grout-filled concrete block**


**Table 6 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods and reinforcing bars in the top of grout-filled concrete masonry walls<sup>1,2,4,5,6,7,8</sup>**

Nominal anchor diameter or rebar size	Effective embedment in. (mm)	Edge distance in. (mm)	End distance in. (mm)	Spacing		Tension load <sup>9</sup>		Shear load <sup>9</sup>		
				Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	@ $s_{cr}$ lb (kN)	Reduction factor @ $s_{min}$	Parallel to edge of masonry wall @ $s_{cr}$ lb (kN)	Perpendicular to edge of masonry wall @ $s_{cr}$ lb (kN)	Reduction Factor @ $s_{min}$
$1/2^3$	4-1/2 (114)	1-3/4 (44)	8 (203)	16 (406)	3 (76)	1,165 (5.2)	0.57	815 (3.6)	345 (1.5)	0.50
		4 (102)				1,625 (7.2)	0.50	1,445 (6.4)	505 (2.2)	0.50
	5-5/8 (143)	1-3/4 (44)				1,165 (5.2)	0.58	1,190 (5.3)	385 (1.7)	0.50
		4 (102)				1,590 (7.1)	0.50	1,825 (8.1)	655 (2.9)	0.50
$3/4^3$	6-3/4 (171)	2-3/4 (70)		16 (406)	16 (406)	1,020 (4.5)	0.74	1,405 (6.3)	425 (1.9)	0.59
#4 <sup>10</sup>	4-1/2 (114)	1-3/4 (44)				865 (3.8)	1.00	635 (2.8)	245 (1.1)	1.00
#5 <sup>10</sup>	5-5/8 (143)	1-3/4 (44)				980 (4.4)		755 (3.4)	295 (1.3)	

1 All values are for anchors installed in fully grouted concrete masonry with minimum masonry prism strength of 1,500 psi. Concrete masonry units shall be lightweight, medium-weight or heavy-weight conforming to ASTM C90. Allowable loads are calculated using a safety factor of 5.

2 When using the basic load combinations in accordance with IBC Section 1605.3.1, or the alternative basic load combinations in IBC Section 1605.3.2, tabulated allowable loads must not be increased for seismic or wind loading.

3 One anchor shall be permitted to be installed in each cell.

4 Anchors are not permitted to be installed in a head joint, flange or web of the concrete masonry unit.

5 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in tables 3 and 4.

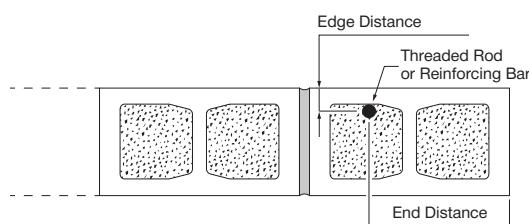
6 Tabulated allowable loads shall be adjusted for increased base material temperatures in accordance with figure 13.

7 For combined loading:  $(T_{applied}/T_{allowable})^n + (V_{applied}/V_{allowable})^n \leq 1$  where  $n = 5/3$  for 1/2-inch diameters (#4 rebar) and  $n = 1$  for 5/8-inch diameters (#5 rebar).

8 The tabulated edge distance is measured from the anchor centerline to the edge of the concrete block. See figure 3.

9 Linear interpolation of load values between the two tabulated edge distances is permitted.

10 One anchor shall be permitted to be installed in each concrete block.

**Figure 3 — Edge and end distances for threaded rods and reinforcing bars installed in the top of grout-filled CMU**

**Table 7 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods and reinforcing bars in the side of grout-filled concrete masonry walls<sup>1,2,3,4,5,6,7,8</sup>**

Nominal anchor diameter or rebar size	Effective embedment in. (mm)	Minimum edge distance in. (mm)	Minimum end distance in. (mm)	Tension lb (kN)	Shear load, lb (kN)	
					Load parallel to edge of masonry wall	Load perpendicular to edge of masonry wall
1/2	4-1/2 (114)	1-3/4 (44)	8 (203)	990 (4.4)	885 (3.9)	255 (1.1)
5/8	5-5/8 (143)			1,200 (5.3)	1,220 (5.4)	330 (1.5)
3/4	5-5/8 (143)			1,200 (5.3)	1,770 (7.9)	530 (2.4)
#4	4-1/2 (114)			1,055 (4.7)	835 (3.7)	255 (1.1)
#5	5-5/8 (143)			1,160 (5.2)	990 (4.4)	275 (1.2)

1 All values are for anchors installed in fully grouted concrete masonry with minimum masonry prism strength of 1,500 psi. Concrete masonry units shall be lightweight, medium-weight or heavy-weight conforming to ASTM C90. Allowable loads are calculated using a safety factor of 5.

2 When using the basic load combinations in accordance with IBC Section 1605.3.1 or the alternative basic load combinations in IBC Section 1605.3.2. Tabulated allowable loads must not be increased for seismic or wind loading.

3 One anchor shall be permitted to be installed in each concrete block.

4 Anchors are not permitted to be installed in mortar joint of the concrete masonry unit.

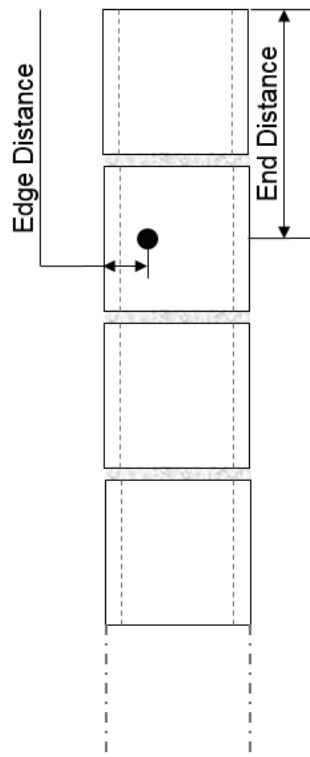
5 Allowable loads must be the lesser of bond tabulated values and the steel values given in tables 3 and 4.

6 Tabulated allowable loads shall be adjusted for increased base material temperatures in accordance with figure 13.

7 Anchors installed on the side of the wall, shall have minimum of 16" vertical spacing.

8 For combined loading:  $(T_{\text{applied}} / T_{\text{allowable}}) + (V_{\text{applied}} / V_{\text{allowable}}) \leq 1$ , where n = 5/3 for 1/2-inch diameters (#4 rebar) and n=1 for 5/8-inch diameter or #5 and #6 rebar.

**Figure 4 — Edge and end distances for threaded rods and reinforcing bars installed in the side of grout-filled CMU**

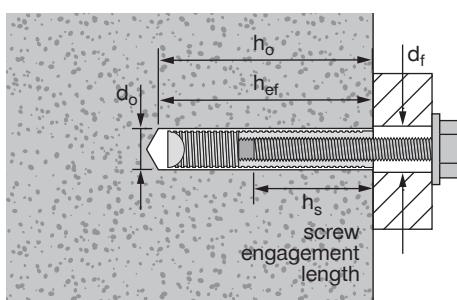


**HIT-HY 270 adhesive with Hilti HIS-N and HIS-RN internally threaded insert**

Permissible Base Materials		Grout-filled concrete masonry	Permissible drilling method		Hammer drilling with carbide tipped drill bit
					Hilti TE-CD or TE-YD hollow drill bit

3.2.4

**Figure 5 — Hilti HIT-HY 270 specifications for HIS-N and HIS-RN inserts in grout-filled concrete masonry walls**



**Hilti installation specifications for HIS-N and HIS-RN inserts in grout-filled concrete masonry walls**

Setting information	Symbol	Units	Thread size	
			3/8-16 UNC	1/2-13 UNC
Nominal bit diameter	$d_o$	in.	11/16	7/8
Nominal / effective embedment	$h_o / h_{ef}$	in. (mm)	4-3/8 (110)	5 (125)
Maximum installation torque	$T_{inst}$	ft-lb (Nm)	6 (8)	7.5 (10)
Diameter of fixture hole	$d_f$	in.	7/16	9/16
Thread engagement length	$h_s$	in. (mm)	3/8 to 15/16 (10 to 25)	1/2 to 1-1/4 (13 – 32)

**Table 8 — Hilti HIT-HY 270 allowable adhesive bond tension loads for HIS-N and HIS-RN inserts in the face of grout-filled concrete masonry walls<sup>1,2,3,4,5,6,7,8</sup>**

Thread size	Effective embedment in. (mm) <sup>11</sup>	Tension lb (kN)	Spacing <sup>9</sup>			Edge distance <sup>10</sup>		
			Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor @ $s_{min}$ <sup>12</sup>	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$ <sup>12</sup>
3/8-16 UNC	4-3/8 (110)	2,075 (9.2)	17 (432)	4 (102)	0.55	12 (305)	4 (102)	0.82
1/2-13 UNC	5 (125)	2,710 (12.1)	20 (508)		0.55	20 (508)		0.63

**Table 9 — Hilti HIT-HY 270 allowable adhesive bond shear loads for HIS-N and HIS-RN inserts in the face of grout-filled concrete masonry walls<sup>1,2,3,4,5,6,7,8</sup>**

Thread size	Effective embedment in. (mm) <sup>11</sup>	Shear lb (kN)	Spacing <sup>9</sup>			Edge distance <sup>10</sup>		
			Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor @ $s_{min}$ <sup>12</sup>	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor
								Load perpendicular to edge      Load parallel to edge
3/8-16 UNC	4-3/8 (110)	1,100 (4.9)	17.0 (432)	4 (102)	0.74	12 (305)	4 (102)	0.72      1.00
1/2-13 UNC	5 (125)	2,065 (9.2)	20 (508)		0.71	20 (508)		0.40      0.87

The following footnotes apply to both Tables 7 and 8:

- 1 All values are for anchors installed in fully grouted concrete masonry with minimum masonry prism strength of 1,500 psi. Concrete masonry units shall be lightweight, medium-weight or heavy-weight conforming to ASTM C90. Allowable loads are calculated using a safety factor of 5.
- 2 Anchors may be installed in any location in the face of the masonry wall including cell, web, and mortar joints. Anchors are limited to one per masonry cell. See Figure 2.
- 3 Linear interpolation of load values between minimum spacing ( $s_{min}$ ) and critical spacing ( $s_{cr}$ ) and between minimum edge distance ( $c_{min}$ ) and critical edge distance ( $c_{cr}$ ) is permitted.
- 4 Concrete masonry thickness must be equal to or greater than 1.5 times the anchor embedment depth.
- 5 When using the basic load combinations in accordance with IBC Section 1605.3.1, tabulated allowable loads must not be increased for seismic or wind loading. When using the alternative basic load combinations in IBC Section 1605.3.2 that include seismic or wind loads, tabulated allowable loads may be increased by 33-1/3 percent, or the alternative basic load combinations may be reduced by a factor of 0.75.
- 6 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in tables 3 and 4.
- 7 Tabulated allowable loads shall be adjusted for increased base material temperatures in accordance with figure 13.
- 8 For combined loading:  $(T_{applied}/T_{allowable})^n + (V_{applied}/V_{allowable})^n \leq 1$  where  $n = 5/3$
- 9 The critical spacing,  $s_{cr}$ , is the anchor spacing where full load values may be used. The minimum spacing,  $s_{min}$ , is the minimum anchor spacing for which values are available and installation is recommended. Spacing is measured from the center of one anchor to the center of an adjacent anchor.
- 10 The critical edge distance,  $c_{cr}$ , is the edge distance where full load values may be used. The minimum edge distance,  $c_{min}$ , is the minimum edge distance for which values are available and installation is recommended. Edge distance is measured from the center of the anchor to each edge.
- 11 Embedment depth is measured from the outside face of the concrete masonry unit.
- 12 Load reduction factors are multiplicative: both spacing and edge distance load reduction factors, and spacing and edge distances for all adjacent anchors/edges less than  $s_{cr}/c_{cr}$ , must be considered. Load values for anchors installed at less than  $s_{cr}$  and  $c_{cr}$  must be multiplied by the appropriate load reduction factor based on actual edge distance (c) and spacing (s).

**HIT-HY 270 adhesive with Hilti HAS threaded rods and Hilti HIT-IC Inserts**

Hilti HAS Threaded Rods

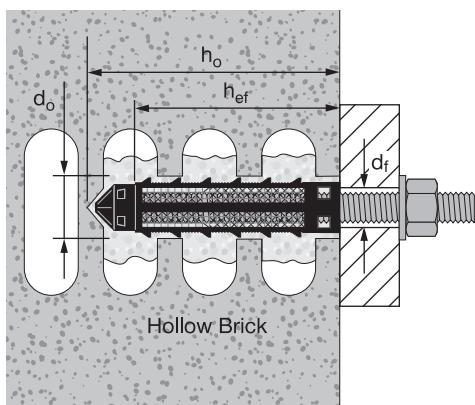


Hilti HIT-IC Inserts

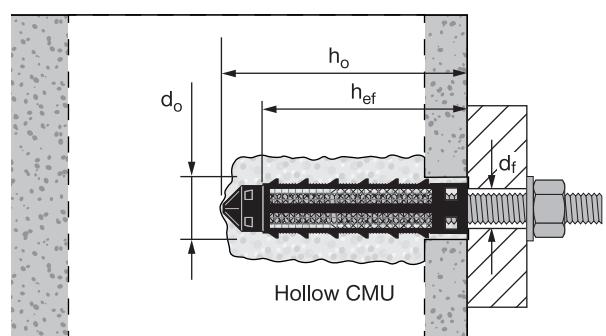
Permissible Base Materials		UngROUTED Concrete Masonry	Permissible drilling method		3.2.4
		Brick with Holes			

**Hilti installation specifications for HAS threaded rod in hollow masonry and brick with holes**

Setting information	Symbol	Units	Nominal rod diameter (in.)			
			1/4	5/16	3/8	1/2
Nominal bit diameter	$d_o$	in.	1/2	5/8	5/8	11/16
Screen size, CMU	HIT-SC	-	12x50	16x50	16x50	18x50
Depth drilled, CMU	$h_o$	in. (mm)	Through face shell			
Effective embedment, CMU	$h_{ef}$	in. (mm)	2 (50)	2 (50)	2 (50)	2 (50)
Screen size, Brick	HIT-SC	-	12x85	16x85	16x85	18x85
Depth drilled, Brick	$h_o$	in. (mm)	3-3/4 (95)	3-3/4 (95)	3-3/4 (95)	3-3/4 (95)
Effective embedment, Brick	$h_{ef}$	in. (mm)	3-1/8 (79)	3-1/8 (79)	3-1/8 (79)	3-1/8 (79)
Maximum installation torque	$T_{inst}$	ft-lb (Nm)	2.2 (3)	2.2 (3)	3 (4)	4.5 (6)
Diameter of fixture hole	$d_f$	in.	9/32	3/8	7/16	9/16

**Figure 6 — Hilti HIT-HY 270 specifications for Hilti HAS threaded rod in hollow masonry and brick with holes****Hilti installation specifications for #14 screw in hollow masonry and brick with holes**

Setting information	Symbol	Units	CMU	Brick
Nominal bit diameter	$d_o$	in.	1/2	1/2
Screen size	HIT-S	-	12/l	12/l
Depth drilled	$h_o$	in. (mm)	Through face shell (50)	2 (50)
Effective embedment	$h_{ef}$	in. (mm)	2 (50)	2 (50)
Diameter of fixture hole	$d_f$	in.	9/32	9/32



**Table 10 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods in the face of hollow concrete masonry units<sup>1,3,7,9,10</sup>**

Nominal anchor diameter in.	Embedment in. (mm) <sup>2</sup>	Tension load lb (kN)		Critical and minimum edge distance for tension, $c_{cr}$ and $c_{min}$ in (mm)	Shear load at $c_{cr}$ lb (kN)		Edge distances for shear <sup>6</sup>		
		Installation in the cell lb (kN) <sup>4,5,8</sup>	Installation in the bed joint lb (kN) <sup>5,8</sup>		Installation in the cell lb (kN) <sup>4,5,8</sup>	Installation in the bed joint lb (kN) <sup>5,8</sup>	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$
1/4	2 (51)	220 (1.0)	300 (1.3)	4 (102)	355 (1.6)	385 (1.7)	4 (102)	4 (102)	1.00
5/16		390 (1.7)	300 (1.3)		630 (2.8)	435 (1.9)	12 (305)		0.73
3/8		390 (1.7)	300 (1.3)		645 (2.9)	550 (2.4)	12 (305)		0.73
1/2		390 (1.7)	330 (1.5)		670 (3.0)	755 (3.4)	12 (305)		0.73

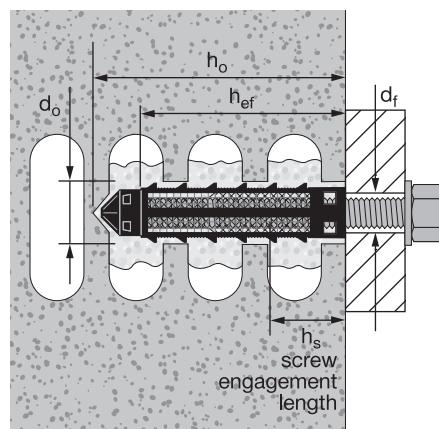
**Table 11 — Hilti HIT-HY 270 allowable adhesive bond loads for Hilti HIT-IC inserts in the face of hollow concrete masonry units<sup>1,3,7,9,10</sup>**

Nominal anchor diameter in.	Embedment in. (mm) <sup>2</sup>	Tension load, installation in the cell lb (kN) <sup>4,5,8</sup>	Critical and minimum edge distance for tension, $c_{cr}$ and $c_{min}$ in (mm)	Shear load, installation in the cell lb (kN) <sup>4,5,8</sup>	Edge distances for shear <sup>6</sup>		
					Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$
#14 Screw	2 (51)	190 (0.8)	4 (102)	235 (1.0)	4 (102)	4 (102)	1.00
5/16-18 UNC		415 (1.8)		605 (2.7)	12 (305)		0.80
3/8-16 UNC		480 (2.1)		620 (2.8)	12 (305)		0.78
1/2-13 UNC		495 (2.2)		620 (2.8)	12 (305)		0.75

The following footnotes apply to both Tables 9 and 10:

- All values are for anchors installed in hollow concrete masonry with minimum masonry strength of 1500 psi. Concrete masonry units must be light-, medium, normal-weight conforming to ASTM C90. Allowable loads have been calculated using a safety factor of 5.
- Tabulated embedment depth is limited by the length of the plastic HIT-SC screens.
- Anchors must be installed in the face of the hollow CMU masonry wall. A maximum of two anchors may be installed in a single cell of the hollow CMU block.
- Tabulated values are for anchors installed in the cell of the hollow CMU. Installation in other locations of the hollow CMU (mortar joints, flange, or cell web) is not permitted.
- Two anchors may be spaced as close as 4 inches apart with no reduction in tension or shear capacity. EXCEPTION: Two 3/8-inch diameter HIT-IC inserts and two 1/2-inch diameter HIT-IC inserts installed in the same cell spaced as close as 4 inches require a 20% reduction in the tension capacity.
- The critical edge distance,  $c_{cr}$ , is the edge distance where full load values in the table may be used. The minimum edge distance,  $c_{min}$ , is the minimum edge distance for which values are available and installation is permitted. Edge distance is measured from the center of the anchor to any edge.
- Anchors are not recognized for resisting earthquake forces. When using the basic load combinations in accordance with IBC Section 1605.3.1, or the alternative basic load combinations in IBC Section 1605.3.2, tabulated allowable loads must not be increased for wind loading.
- Allowable loads must be the lesser of the adjusted bond values tabulated above and the steel values given in Table 3.
- Tabulated allowable bond loads must be adjusted for increased base material temperatures in accordance with Figure 13, as applicable.
- For combined loading:  $(T_{\text{applied}} / T_{\text{allowable}}) + (V_{\text{applied}} / V_{\text{allowable}}) \leq 1$

**Figure 7 — Hilti HIT-HY 270**  
**specifications for Hilti HIT-IC in hollow**  
**masonry and brick with holes**



3.2.4

#### Hilti installation specifications for Hilti HIT-IC in hollow masonry and brick with holes

Setting information	Symbol	Units	Nominal rod diameter (in.)		
			5/16	3/8	1/2
Nominal bit diameter	$d_o$	in.	5/8	7/8	7/8
HIT-IC size, CMU	HIT-IC	-	5/16x2	3/8x2	1/2x2
Screen size, CMU	HIT-SC	-	16x50	22x50	22x50
Nominal embedment, CMU	$h_o$	in. (mm)	2-3/8 (60)	2-3/8 (60)	2-3/8 (60)
Effective embedment, CMU	$h_{ef}$	in. (mm)	2 (50)	2 (50)	2 (50)
Screw engagement length, CMU	$h_s$	in. (mm)	3/8 - 1 1/2 (9.5 - 38)	3/8 - 1 1/2 (9.5 - 38)	1/2 - 1 1/2 (12.5 - 38)
HIT-IC size, Brick	HIT-IC	-	5/16x3-3/16	3/8x3-3/16	1/2x3-3/16
Screen size, Brick	HIT-SC	-	16x85	22x85	22x85
Nominal embedment, Brick	$h_o$	in. (mm)	3-3/4 (95)	3-3/4 (95)	3-3/4 (95)
Effective embedment, Brick	$h_{ef}$	in. (mm)	3-1/8 (79)	3-1/8 (79)	3-1/8 (79)
Screw engagement length, Brick	$h_s$	in. (mm)	3/8 - 3 (9.5 - 76)	3/8 - 3 (9.5 - 76)	1/2 - 3 (12.5 - 76)
Maximum installation torque	$T_{inst}$	ft-lb (Nm)	2.2 (3)	3 (4)	4.5 (6)
Diameter of fixture hole	$d_f$	in.	3/8	7/16	9/16

**Table 12 — Hilti HIT-HY 270 allowable adhesive bond tension loads for threaded rods in the face of hollow brick<sup>1,3,4,8,9,10,11</sup>**

Nominal anchor diameter in.	Effective embedment in. (mm) <sup>2</sup>	Tension lb (kN)	Spacing <sup>5</sup>			Edge distance <sup>6</sup>		
			Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor @ $s_{min}$ <sup>7</sup>	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$ <sup>7</sup>
1/4	3-1/8 (79)	530 (2.4)	8 (203)	4 (102)	0.88	6 3/8 (162)	4 (102)	0.93
5/16		735 (3.3)			0.82			0.80
3/8		905 (4.0)			0.54			0.83
1/2		905 (4.0)			0.50			1.00

**Table 13 — Hilti HIT-HY 270 allowable adhesive bond shear loads for threaded rods in the face of hollow brick<sup>1,3,4,8,9,10,11</sup>**

Nominal anchor diameter in.	Effective embedment in. (mm) <sup>2</sup>	Shear lb (kN)	Spacing <sup>5</sup>			Edge distance <sup>6</sup>		
			Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor @ $s_{min}$ <sup>7</sup>	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$ <sup>7</sup>
1/4	3-1/8 (79)	370 (1.6)	8 (203)	4 (102)	0.84	8 (203)	4 (102)	0.86
5/16		595 (2.6)			0.81	8 (203)		0.93
3/8		1,045 (4.6)			0.59	12 (305)		0.54
1/2		1,685 (7.5)			0.50	12 (305)		0.36

The following footnotes apply to both Tables 11 and 12:

- 1 All values are for anchors installed in hollow brick masonry with minimum masonry strength of 3000 psi. Hollow brick units must be in conformance with ASTM C652. Allowable loads have been calculated using a safety factor of 5.
- 2 Tabulated embedment depth is limited by the length of the plastic HIT-SC screens.
- 3 Anchors must be installed in the face of the hollow brick masonry wall.
- 4 Tabulated values are for the anchor installed in the center of the hollow brick, mortar joints, flanges, or cell web (all wall face locations permitted).
- 5 The critical spacing,  $s_{cr}$ , is the anchor spacing where full load values in the table may be used. The minimum spacing,  $s_{min}$ , is the minimum anchor spacing for which values are available and installation is recommended. Spacing is measured from the center of one anchor to the center of an adjacent anchor.
- 6 The critical edge distance,  $c_{cr}$ , is the edge distance where full load values in the table may be used. The minimum edge distance,  $c_{min}$ , is the minimum edge distance for which values are available and installation is permitted. Edge distance is measured from the center of the anchor to each edge.
- 7 Load reduction factors are multiplicative: both spacing and edge distance load reduction factors, and spacing and edge distances for all adjacent anchors/ edges less than  $s_{cr}/c_{cr}$ , must be considered. Load values for anchors installed at less than  $s_{cr}$  and  $c_{cr}$  must be multiplied by the appropriate load reduction factor based on actual edge distance ( $c$ ) and spacing ( $s$ ).
- 8 Anchors are not recognized for resisting earthquake forces. When using the basic load combinations in accordance with IBC Section 1605.3.1, or the alternative basic load combinations in IBC Section 1605.3.2, tabulated allowable loads must not be increased for wind loading.
- 9 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in table 3.
- 10 Tabulated allowable bond loads must be adjusted for increased base material temperatures in accordance with Figure 13, as applicable.
- 11 For combined loading:  $(T_{applied}/T_{allowable}) + (V_{applied}/V_{allowable}) \leq 1$

**Table 14 — Hilti HIT-HY 270 allowable adhesive bond loads for HIT-IC inserts in the face of hollow brick<sup>1,3,4,5,7,8,9,10</sup>**

Thread size	Effective embedment in. (mm) <sup>2</sup>	Tension lb (kN)	Critical and minimum edge distance for tension, $c_{cr}$ and $c_{min}$ in. (mm)	Shear lb (kN)	Edge distance for shear <sup>6</sup>		
					Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor @ $c_{min}$
#14 Screw	2 (51)	170 (0.8)	6 3/8 (162)	222 (1.0)	8 (203)	8 (203)	1.00
5/16-18 UNC	3-1/8 (79)	880 (3.9)		655 (2.9)	8 (203)		1.00
3/8-16 UNC		880 (3.9)		1,235 (5.5)	12 (305)		0.66
1/2-13 UNC		990 (4.4)		1,895 (8.4)	12 (305)		0.44

1 All values are for anchors installed in hollow brick masonry with minimum masonry strength of 3000 psi. Hollow brick units must be in conformance with ASTM C652. Allowable loads have been calculated using a safety factor of 5.

2 Tabulated embedment depth is limited by the length of the plastic HIT-SC screens.

3 Anchors must be installed in the face of the hollow brick masonry wall.

4 Tabulated values are for one anchor installed in the hollow brick, mortar joints, flanges, or cell web (all wall face locations permitted).

5 One anchor is permitted to be installed in each brick. Two anchors installed in adjacent bricks may be spaced as close as 8 inches apart with no load reduction.

6 The critical edge distance,  $c_{cr}$ , is the edge distance where full load values in the table may be used. The minimum edge distance,  $c_{min}$ , is the minimum edge distance for which values are available and installation is permitted. Edge distance is measured from the center of the anchor to each edge.

7 Anchors are not recognized for resisting earthquake forces. When using the basic load combinations in accordance with IBC Section 1605.3.1, or the alternative basic load combinations in IBC Section 1605.3.2, tabulated allowable loads must not be increased for wind loading.

8 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in table 3.

9 Tabulated allowable bond loads must be adjusted for increased base material temperatures in accordance with Figure 13, as applicable.

10 For combined loading:  $(T_{\text{applied}} / T_{\text{allowable}}) + (V_{\text{applied}} / V_{\text{allowable}}) \leq 1$

3.2.4

## HIT-HY 270 adhesive with Hilti HAS threaded rods and deformed reinforcing bars (Rebar)



Hilti HAS Threaded Rods



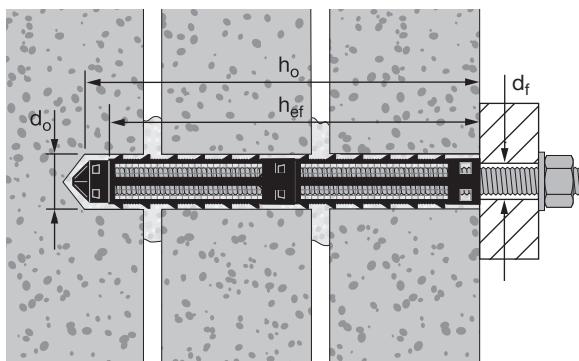
Deformed Reinforcing Bars (Rebar)



Bent threaded rod 22.5 degrees

Permissible Base Materials		Unreinforced Multi-wythe Brick (URM)	Permissible drilling method		Rotary only drilling with carbide tipped drill bit
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**Figure 8 — Hilti HIT-HY 270 specifications  
for HAS rods in multi-wythe brick wall**



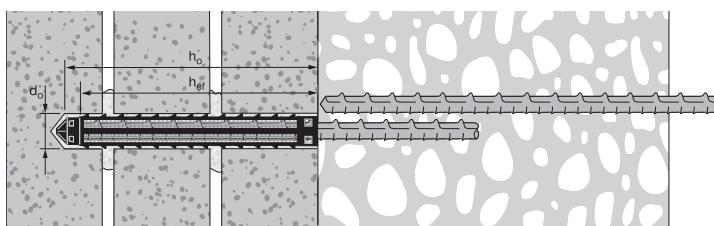
### Hilti installation specifications for HAS rods in multi-wythe brick wall

Setting information	Symbol	Units	Nominal rod diameter (in.)							
			3/8		1/2		5/8		3/4	
Nominal bit diameter	$d_o$	in.	5/8		11/16		7/8		1	
Screen size	HIT-SC	-	2x 16x85	3x 16x85	2x 18x85	3x 18x85	2x 22x85	3x 22x85	26x200	26x125 + 26x200
Nominal embedment	$h_o$	in. (mm)	7-1/8 (181)	10-3/4 (273)	7-1/8 (181)	10-3/4 (273)	7-1/8 (181)	10-3/4 (273)	8-1/4 (210)	13-1/4 (337)
Effective embedment	$h_{ef}$	in. (mm)	6 (152)	10 (254)	6 (152)	10 (254)	6 (152)	10 (254)	8 (203)	13 (330)
Maximum installation torque	$T_{inst}$	ft-lb (Nm)	10 (14)		30 (41)		45 (61)		60 (81)	
Diameter of fixture hole	$d_f$	in.	7/16		9/16		11/16		13/16	

**Hilti installation specifications for rebar in multi-wythe brick wall**

Setting information	Symbol	Units	Nominal rod diameter (in.)		
			#4	#5	#6
Nominal bit diameter	$d_o$	in.	1	1	1
Screen size	HIT-SC	-	26x200	26x200	26x200
Nominal embedment	$h_o$	in. (mm)	8-1/4 (210)	8-1/4 (210)	8-1/4 (210)
Effective embedment	$h_{ef}$	in. (mm)	8 (203)	8 (203)	8 (203)

3.2.4

**Figure 9 — Hilti HIT-HY 270 specifications for rebar in multi-wythe brick wall****Table 15 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods in multi-wythe solid brick wall<sup>1,2,3,4,5,6,8,9</sup>**

Nominal anchor diameter in.	Effective embedment <sup>7</sup> in. (mm)	Tension lb (kN)	Shear lb (kN)	Spacing			Edge distance		
				Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor@ $s_{min}$	Critical $c_{cr}$ in. (mm)	Minimum $c_{min}$ in. (mm)	Load reduction factor@ $c_{min}$
3/8	6 (152)	895 (4.0)	680 (3.0)	16 (406)	8 (203)	0.50	16 (406)	8 (203)	0.50
	10 (254)	1,325 (5.9)	795 (3.5)						
1/2	6 (152)	895 (4.0)	1,075 (4.8)	16 (406)	8 (203)	0.50	16 (406)	8 (203)	0.50
	10 (254)	1,455 (6.5)	1,115 (5.0)						
5/8	6 (152)	1,025 (4.6)	1,405 (6.3)	16 (406)	8 (203)	0.50	16 (406)	8 (203)	0.50
	10 (254)	1,955 (8.7)	1,445 (6.4)						
3/4	8 (203)	1,575 (7.0)	1,985 (8.8)	16 (406)	8 (203)	0.50	16 (406)	8 (203)	0.50
	13 (330)	2,135 (9.5)	1,985 (8.8)						

1 All values are based on mortar shear strength of 45 psi or greater. Allowable loads are calculated using a safety factor of 5.

2 Anchors must be installed in the face of the multi-wythe URM wall. The wall must have a minimum thickness of 13 inches made up of 3 wythes of brick.

3 Tabulated values are for maximum one anchor installed in the center of the brick of the multi-wythe URM wall.

4 Edge distance,  $c_{min}$ , and spacing,  $s_{min}$ , are the minimum distances for which values are available and installation is recommended. Edge distance is measured from the center of the anchor to each edge. Spacing is measured from the center of one anchor to the center of an adjacent anchor.

5 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in table 3.

6 Allowable loads shall be adjusted for increased base material temperature in accordance with Figure 13.

7 Tabulated embedment depth is limited by the length of the plastic HIT-SC screens.

8 For combined loading:  $(T_{applied}/T_{allowable}) + (V_{applied}/V_{allowable}) \leq 1$ 9 Load reduction factors are multiplicative: both spacing and edge distance load reduction factors, and spacing and edge distances for all adjacent anchors/ edges less than  $s_{cr}/c_{cr}$  must be considered. Load values for anchors installed at less than  $s_{cr}$  and  $c_{cr}$  must be multiplied by the appropriate load reduction factor based on actual edge distance ( $c$ ) and spacing ( $s$ ).

**Table 16 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods in multi-wythe hollow brick wall<sup>1,3,4,5,7,8</sup>**

Nominal anchor diameter in.	Effective embedment in. (mm) <sup>6</sup>	Tension lb (kN)	Shear lb (kN)	Minimum edge distance $c_{min}$ in. (mm)	Spacing			
					Critical $s_{cr}$ in. (mm)	Minimum $s_{min}$ in. (mm)	Load reduction factor in tension @ $s_{min}$	Load reduction factor in shear @ $s_{min}$
Anchor installed into the face of brick masonry wall <sup>2</sup>								
3/8	6-1/4 (160)	880 (3.9)	560 (2.5)	4 (102)	16 (406)	8 (203)	0.89	1.00
	9-3/4 (248)	1,540 (6.9)	895 (4.0)				0.96	0.75
1/2	6-1/4 (160)	1,430 (6.4)	655 (2.9)	4 (102)	16 (406)	8 (203)	0.59	0.75
	9-3/4 (248)	2,020 (9.0)	895 (4.0)				0.89	0.78
5/8	6-1/4 (160)	1,695 (7.5)	655 (2.9)	4 (102)	16 (406)	8 (203)	0.50	0.71
	9-3/4 (248)	2,165 (9.6)	895 (4.0)				0.71	0.58
3/4	8 (203)	1,380 (6.1)	855 (3.8)	4 (102)	16 (406)	8 (203)	1.00	0.67
	10 (250)	2,075 (9.2)	1,070 (4.8)				0.79	0.54
Anchor installed into the top of brick masonry wall								
3/8	3-1/8 (79)	315 (1.4)	220 (1.0)	2.5 (64)	8 (203)	8 (203)	1	1
Anchor installed into the side of brick masonry wall								
3/8	3-1/8- (79)	570 (2.5)	290 (1.3)	2.5 (64)	8 (203)	8 (203)	1	1

1 All values are for anchors installed in brick masonry with minimum masonry strength of 3000 psi. Brick units must be in conformance with ASTM C652. Allowable loads have been calculated using a safety factor of 5.

2 Anchors must be installed in the face of the multi-wythe URM wall. 2-wythe brick walls must have minimum of 6 inches thickness. Anchors with the effective embedment larger than 6-1/4" inches must be installed in the wall with minimum thickness of 13 inches made up of 3-wythe brick walls.

3 Edge distance,  $c_{min}$ , and spacing,  $s_{min}$ , are the minimum distances for which values are available and installation is recommended. Edge distance is measured from the center of the anchor to each edge. Spacing is measured from the center of one anchor to the center of an adjacent anchor.

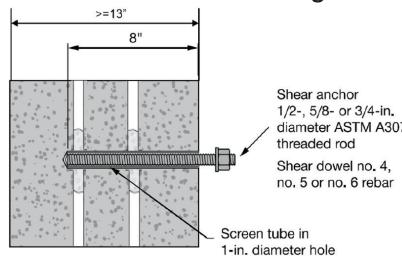
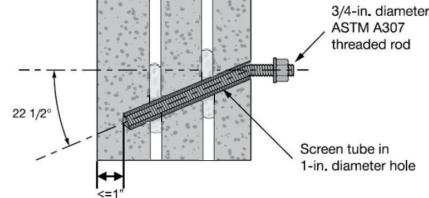
4 Allowable loads must be the lesser of the adjusted bond tabulated values and the steel values given in table 3.

5 Allowable loads shall be adjusted for increased base material temperature in accordance with Figure 13.

6 Tabulated embedment depth is limited by the length of the plastic HIT-SC screens.

7 For combined loading:  $(T_{applied}/T_{allowable}) + (V_{applied}/V_{allowable}) \leq 1$

8 Load reduction factors are multiplicative: both spacing and edge distance load reduction factors, and spacing and edge distances for all adjacent anchors/ edges less than  $s_{cr}$  /  $c_{cr}$  must be considered. Load values for anchors installed at less than  $s_{cr}$  and  $c_{cr}$  must be multiplied by the appropriate load reduction factor based on actual edge distance ( $c$ ) and spacing ( $s$ ).

**Figure 10 — Hilti HIT-HY 270 shear anchor or dowel in configuration A**

**Figure 11 — Hilti HIT-HY 270 with 22-1/2° combination anchor in configuration B**

**Table 17 — Hilti HIT-HY 270 allowable adhesive bond seismic loads for threaded rods and reinforcing bars in unreinforced brick masonry<sup>1,2,3</sup>**

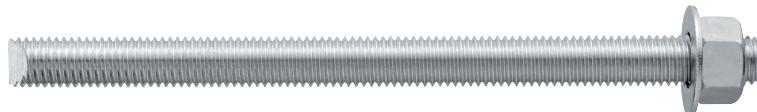
Configuration A – Shear anchor or rebar dowel				
Nominal anchor diameter (in.) or rebar size	Embedment in. (mm)	Minimum wall thickness in. (mm)	Tension lb (kN)	Shear lb (kN) <sup>4</sup>
1/2 or # 4	8 (203)	13 (330)	-	500 (2.2)
5/8 or # 5			-	750 (3.3)
3/4 or # 6			-	1,000 (4.4)
Configuration B – 22-1/2° combination anchor				
Nominal anchor diameter (in.)	Embedment in. (mm)	Minimum wall thickness in. (mm)	Tension lb (kN)	Shear lb (kN) <sup>4</sup>
3/4	Within 1 inch of opposite wall surface	13 (330)	1200 (5.3)	1,000 (4.4)

1 Allowable load values are applicable only to anchors where in-place shear tests indicate minimum mortar strength of 50 psi.

2 Allowable loads are computed in accordance with ICC-ES AC60 (2010) and IBC (2009).

3 No increase for short-term loading is permitted, such as loading induced by wind or earthquake.

4 Anchors must be tested in accordance with the requirements of IEBC and UCBC

**HIT-HY 270 adhesive with Hilti HAS threaded rods**

Hilti HAS threaded rod

Permissible Base Materials		Hollow core concrete	Permissible drilling method	 	3.2.4
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**Table 18 — Hilti HIT-HY 270 allowable adhesive bond loads for threaded rods in hollow core concrete panels<sup>1,4,5,6</sup>**

Nominal anchor diameter in.	Effective embedment in. (mm) <sup>2</sup>	Minimum concrete thickness in. (mm) <sup>3</sup>	Tension lb (kN)	Shear lb (kN)
3/8	2 (50.8)	1-3/8 (34.9)	450 (2.0)	560 (2.5)

1 All values are for anchor installed in hollow core concrete with minimum compressive strength of 7,000 psi. Due to variations in materials and dimensional configurations, on-site testing is required to determine the actual performance of the anchor. Allowable loads are calculated using a safety factor of 5.

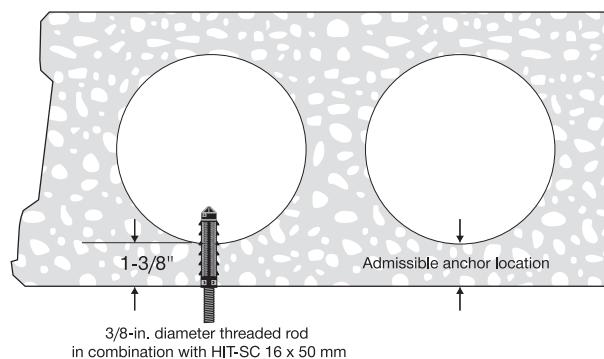
2 Tabulated embedment depth is limited by the plastic HIT-SC 16x50 mm screens. See Figure 12.

3 The required concrete thickness is the thickness for which values are available and installation is recommended. Anchors shall be installed along the centerline of the hollow core or along the line of minimum thickness. Verify these requirements with the hollow core plank supplier before installation. The required thickness is measured from the inner to the outer side of hollow core panel. See Figure 12.

4 Tabulated allowable loads must be the lesser of the adjusted bond values tabulated and the steel values in table 3.

5 Allowable loads shall be adjusted for increased base material temperature in accordance with Figure 13.

6 For combined loading:  $(T_{\text{applied}} / T_{\text{allowable}}) + (V_{\text{applied}} / V_{\text{allowable}}) \leq 1$

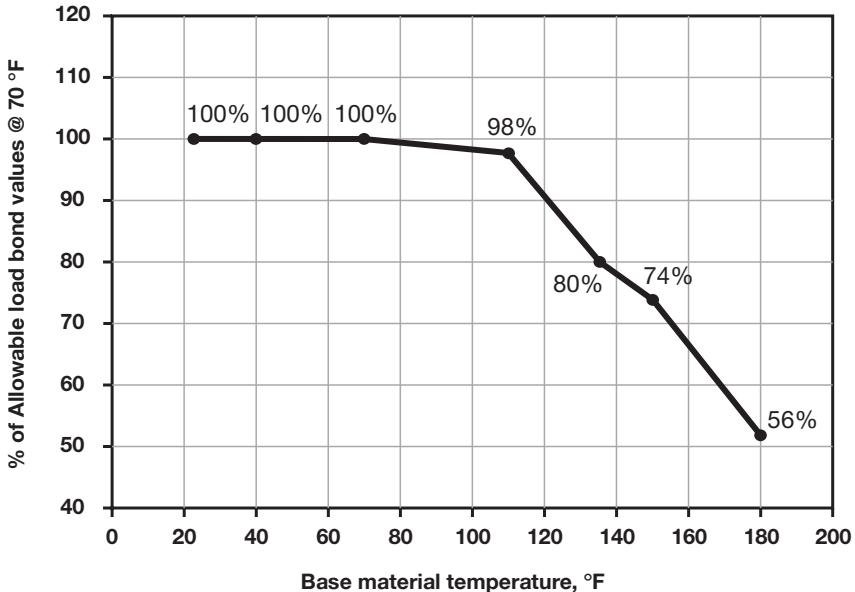
**Figure 12 — Hilti HIT-HY 270 adhesive installed in hollow core concrete<sup>1,2</sup>**

- 1 Representation of the tested conditions for which allowable adhesive bond loads are applicable. Refer to footnote 3 of corresponding load table above for more information on requirements and restrictions on the admissible anchor installation.
- 2 Minimum edge distance is 6-inches.  
Minimum spacing is:  
  - 8-inches along the length of each hollow core section.
  - One anchor per hollow core section (left and right on page), 6-inches minimum between adjacent hollow core sections.

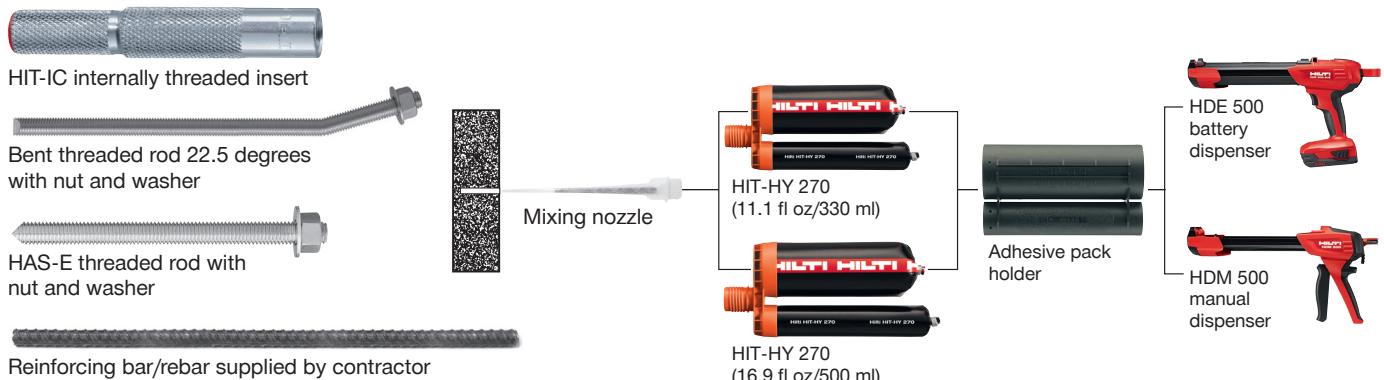
## INSTALLATION INSTRUCTIONS

Installation Instructions For Use (IFU) are included with each product package. They can also be viewed or downloaded online at [www.hilti.com](http://www.hilti.com). Because of the possibility of changes, always verify that downloaded IFU are current when used. Proper installation is critical to achieve full performance. Training is available on request. Contact Hilti Technical Services for applications and conditions not addressed in the IFU.

**Figure 13 — Influence of in-service temperature on bond loads**

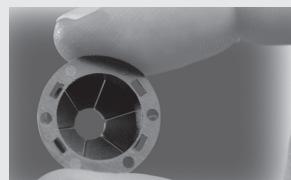


## ORDERING INFORMATION



Description	Package Contents	Qty of Foil Packs
<b>HIT-HY 270 (11.0Z/330ML)</b>	Includes (1) foil pack with (1) mixer and 3/8-in. filler tuber per pack	1
<b>HIT-HY 270 (11.0Z/330ML) 1 MC</b>	Includes (1) master carton containing (25) foil packs with (1) mixer and 3/8-in. filler tuber per pack	25
<b>HIT-HY 270 (16.9OZ/500ML) 1 MC</b>	Includes (1) master carton containing (20) foil packs with (1) mixer and 3/8-in. filler tuber per pack	20
<b>HIT-HY 270/500ML (2MC)+ HDM 500</b>	Includes (2) master cartons containing (20) foil packs each with (1) mixer and 3/8-in. filler tuber per pack and (1) HDM 500 manual dispenser	40
<b>HIT-HY 270/500ML (2MC)+ HDE 500 KIT</b>	Includes (2) master cartons containing (20) foil packs each with (1) mixer and 3/8-in. filler tuber per pack and (1) HDE 500 manual dispenser	40
<b>HY 270 TE 30-C AVR SAFESSET PACK</b>	Includes TE 30-C AVR, VC 150 6-X, (40) HIT-HY 270 500/1, HDE 500-A22, C 4/36 LI-ION, (1) B 22/2.6 LI-ION, HIT-CB 500, TE-CD BITS: (1) 1/2"-13", (1) 9/16"-14", (1) 5/8"-14", (1) 3/4"-14", & BAG SMALL	40
<b>HY 270 TE 6-A22 SAFESSET PACK</b>	Includes TE 6-A22, VC 150 6-X, (40) HIT-HY 270 500/1, HDE 500-A22, C 4/36 LI-ION, (2) B 22/5.2 LI-ION, HIT-CB 500, TE-CD BITS: (1) 1/2"-13", (1) 9/16"-14", (1) 5/8"-14", (1) 3/4"-14", & BAG SMALL	40
<b>HY 270 TE 30-A36 SAFESSET PACK</b>	Includes TE 30-A36, VC 150 6-X, (40) HIT-HY 270 500/1, HDE 500-A22, C 4/36-350 LI-ION, (2) B 36/6.0 LI-ION, HIT-CB 500, TE-CD BITS: (1) 1/2"-13", (1) 9/16"-14", (1) 5/8"-14", (1) 3/4"-14", & BAG SMALL	40
<b>HIT-RE-M Static Mixer</b>	For use with HIT-HY 270 cartridges	1

Customize the sleeve to the length of your application.  
Different embedment depths are created with minimal effort.



Step 1: Remove the centering ring of any screen tube within the cell.



Step 2: Pierce the tip of the screen tube with the rod intended to be used to check embedment depth.



Step 3: Combine screen tubes to desired length.

### Brick with holes and hollow concrete block

Threaded Rod	Mesh Sleeve			Approximate fastenings per foil pack <sup>1</sup>			
	Rod Size 5.8 Grade	Embedment, in.	Qty	Nominal Bit Dia., in.	Mesh Sleeve per Fastening	11.1 fl oz (330 ml)	16.9 fl oz (500 ml)
<b>Plastic Sleeve (for #14 screw)</b>		2	20	1/2	(1) HIT S-12/I	25	40
<b>HAS B 1/4 x 3</b>		2	20	1/2	(1) SC 12x50	25	40
<b>HAS B 1/4 x 4-1/2</b>		3-1/8	20	1/2	(1) SC 12x85	16	26
<b>HAS B 5/16 x 3</b>		2	20	5/8	(1) SC 16x50	16	26
<b>HAS B 5/16 x 4-1/2</b>		3-1/8	20	5/8	(1) SC 16x85	7	12
<b>HAS-E 3/8 x 3</b>		2	10	5/8	(1) SC 16x50	16	26
<b>HAS-E 3/8 x 4-3/8</b>		3-1/8	10	5/8	(1) SC 16x85	7	12
<b>HAS-E 1/2 x 3-1/8</b>		2	10	11/16	(1) SC 18x50	9	15
<b>HAS-E 1/2 x 4-1/2</b>		3-1/8	10	11/16	(1) SC 18x85	4	7

## Composite mesh sleeves for hollow masonry and brick material

Description	For use with:	Qty	Actual Dia., in.	Length, in.	Bit Dia.
Mesh sleeve HIT-SC 12x50	①	1/4 dia. rods	20	0.47	1.97
Mesh sleeve HIT-SC 12x85	①	1/4 dia. rods	20	0.47	3.35
Mesh sleeve HIT-SC 16x50	①	5/16, 3/8 dia. rods and 5/16 HIT-IC rods	20	0.63	1.97
Mesh sleeve HIT-SC 16x85	①	5/16, 3/8 dia. rods and 5/16 HIT-IC rods	20	0.63	3.35
Mesh sleeve HIT-SC 18x50	①	1/2 dia. rods	20	0.71	1.97
Mesh sleeve HIT-SC 18x85	①	1/2 dia. rods	20	0.71	3.35
Mesh sleeve HIT-SC 22x50	①	5/8 dia. rods, 3/8 and 1/2 HIT-IC rods	20	0.87	1.97
Mesh sleeve HIT-SC 22x85	①	5/8 dia. rods, 3/8 and 1/2 HIT-IC rods	10	0.87	3.35
Mesh sleeve HIT-SC 26x125	②	3/4 dia. rods	20	1.02	4.92
Mesh sleeve HIT-SC 26x200	②	3/4 dia. rods	20	1.02	7.87



## Internally threaded inserts for hollow masonry and brick material

Description	For use with:	Qty	Bit Dia., in.	Threads per inch
Internally Threaded HIT-IC 5/16 x 2	In hollow material use with HIT-SC 16 x 50	10	5/8	18
Internally Threaded HIT-IC 5/16 x 3-3/16	③ In hollow material use with HIT-SC 16 x 85	10	5/8	18
Internally Threaded HIT-IC 3/8 x 2	In hollow material use with HIT-SC 22 x 50	10	7/8	16
Internally Threaded HIT-IC 3/8 x 3-3/16	③ In hollow material use with HIT-SC 22 x 85	10	7/8	16
Internally Threaded HIT-IC 1/2 x 2	In hollow material use with HIT-SC 22 x 50	10	7/8	13
Internally Threaded HIT-IC 1/2 3 x 3/16	③ In hollow material use with HIT-SC 22 x 85	10	7/8	13
HIT Combi-Insert HIT-S - 12/I	④ Plastic sleeve for #14 screw	20	1/2	-



## Multi-wythe brick walls

Threaded Rod			Mesh Sleeve		Approximate fastenings per foil pack <sup>1</sup>	
Rod Size 5.8 Grade	Embedment, in.	Qty	Bit Diameter, in.	Mesh Sleeve per Fastening	11.1 fl oz (330 ml)	16.9 fl oz (500 ml)
HAS-E 3/8 x 5-1/8	4	20	5/8	(2) SC 16x50	15	24
HAS-E 3/8 x 8	6-3/4	10	5/8	(2) SC 16x85	9	14
HAS-E 3/8 x 12	10	10	5/8	(3) SC 16x85	5	9
HAS-E 1/2 x 8	6-3/4	10	11/16	(2) SC 18x85	7	11
HAS-E 1/2 x 12	10	10	11/16	(3) SC 18x85	4	7
HAS-E 5/8 x 8	6-3/4	20	7/8	(2) SC 22x85	4	7
HAS-E 5/8 x 12	10	10	7/8	(3) SC 22x85	2	4
HAS-E 3/4 x 10	8	10	1	(1) SC 26x200	2	4
HAS-E 3/4 x 14	13	10	1	(1) SC 26x200, (1) SC 26x125	1	2
HAS-E 3/4 x 17	15-3/4	10	1	(2) SC 26x200	1	2
HAS-E 3/4 x 19	18	10	1	(2) SC 26x125, (1) SC 26 x 200	1	2
HAS-E 3/4 x 25	23-1/2	10	1	(3) SC 26x200	0	1

## Internally threaded inserts

Threaded Rod			Mesh Sleeve		Approximate fastenings per foil pack <sup>1</sup>	
Rod Size 5.8 Grade	Embedment, in.	Qty	Bit Diameter, in.	Mesh Sleeve per Fastening	11.1 fl oz (330 ml)	16.9 fl oz (500 ml)
Internally Threaded HIT-IC 5/16 x 2	2	10	5/8	(1) SC 16x50	16	26
Internally Threaded HIT-IC 5/16 x 3-3/16	3-1/4	10	5/8	(1) SC 16x85	7	12
Internally Threaded HIT-IC 3/8 x 2	2	10	7/8	(1) SC 22x50	9	15
Internally Threaded HIT-IC 3/8 x 3-3/16	3-1/4	10	7/8	(1) SC 22x85	4	7
Internally Threaded HIT-IC 1/2 x 2	2	10	7/8	(1) SC 22x50	9	15
Internally Threaded HIT-IC 1/2 3-3/16	3-1/4	10	7/8	(1) SC 22x85	4	7

1 Assumes use with HDM 500 Manual Dispenser

## Cleaning accessories

Hole Diameter	Round Brush Size use with HIT-RBH handle	Qty
1/2	HIT-RB 1/2	1
5/8	HIT-RB 5/8	1
11/16	HIT-RB 11/16	1
7/8	HIT-RB 7/8	1
1	HIT-RB 1	1



# HIT-HY 270

## Safety information for 2-Component-products

Issue date: 21/01/2022

Revision date: 21/01/2022

Supersedes: 03/12/2018

Version: 3.0

## SECTION 1: Kit identification

### 1.1 Product identifier

Trade name

HIT-HY 270



Product code

BU Anchor

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

Hilti, Inc.

Legacy Tower, Suite 1000

7250 Dallas Parkway

TX 75024 Plano - USA

T +1 9724035800

1-800-879-8000 toll free - F +1 918 254 0522

## 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-US classification

Eye Irrit. 2A H319 - Causes serious eye irritation.

Skin Sens. 1 H317 - May cause an allergic skin reaction.

Repr. 1B H360 - May damage fertility or the unborn child.

### Label elements

#### GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Danger

Hazardous ingredients

methacrylates, dibenzoyl peroxide, boric acid

Hazard statements (GHS US)

May cause an allergic skin reaction.

Causes serious eye irritation.

May damage fertility or the unborn child.

Precautionary statements (GHS US)

Wear eye protection, protective clothing, protective gloves.

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

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

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

# HIT-HY 270

## Safety information for 2-Component-products

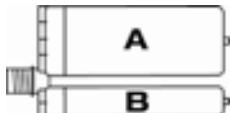
If on skin: Wash with plenty of water.

### Additional information

2-Component-foilpack, contains:

Component A: Urethane methacrylate resin, inorganic filler

Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	GHS-US classification
HIT-HY 270, B		1	pcs (pieces)	Skin Sens. 1, H317
HIT-HY 270, A		1	pcs (pieces)	Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 1B, H360

### 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
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.

# HIT-HY 270

## Safety information for 2-Component-products

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	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-HY 270, A

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 01/21/2022 Revision date: 01/21/2022 Supersedes: 12/03/2018 Version: 2.0

## SECTION 1: Identification

### 1.1. Identification

Product form	Mixture
Product name	HIT-HY 270, A
Product code	BU Anchor

### 1.2. Recommended use and restrictions on use

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

### 1.3. Supplier

<b>Supplier</b>	<b>Department issuing data specification sheet</b>
Hilti, Inc.	Hilti Entwicklungsgesellschaft mbH
Legacy Tower, Suite 1000	Hiltistrasse 6
7250 Dallas Parkway	Kaufering, 86916 - Deutschland
Plano, TX 75024 - USA	T +49 8191 906876
T +1 9724035800	<a href="mailto:anchor.hse@hilti.com">anchor.hse@hilti.com</a>
1-800-879-8000 toll free - F +1 918 254 0522	

### 1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Serious eye damage/eye irritation, Category 2A	H319	Causes serious eye irritation.
Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Reproductive toxicity, Category 1B	H360	May damage fertility or the unborn child.

Full text of H-statements: see section 16

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

#### GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Danger

Hazard statements (GHS US)

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H360 - May damage fertility or the unborn child.

Precautionary statements (GHS US)

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

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

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

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

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

P302+P352 - If on skin: Wash with plenty of water.

# HIT-HY 270, A

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

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Quartz (SiO <sub>2</sub> )	(CAS-No.) 14808-60-7	25 – 40	Carc. 1A, H350
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	(CAS-No.) 27813-02-1	10 – 25	Eye Irrit. 2A, H319 Skin Sens. 1, H317
Bisphenol-A-diethoxy-methacrylate	(CAS-No.) 24448-20-2	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Tricyclodecane dimethanol dimethacrylate	(CAS-No.) 43048-08-4	2,5 - 5	Skin Sens. 1B, H317
1,1,1-Trimethylolpropane trimethacrylate	(CAS-No.) 3290-92-4	2,5 - 5	Not classified
1,1'-(p-tolylimino)dipropan-2-ol	(CAS-No.) 38668-48-3	0,1 - 1	Acute Tox. 2 (Oral), H300 Eye Irrit. 2A, H319
boric acid	(CAS-No.) 10043-35-3	0,1 - 1	Repr. 1B, H360
4-tert-butylpyrocatechol	(CAS-No.) 98-29-3	0,1 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

## 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).
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 after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms	No additional information available.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

# HIT-HY 270, A

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

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

#### 5.2. Specific hazards arising from the chemical

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

#### 5.3. Special protective equipment and precautions for fire-fighters

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

### 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.  
Handling temperature 5 – 40 °C  
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.

# HIT-HY 270, A

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Storage temperature	5 – 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

<b>HIT-HY 270, A</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Boric acid
ACGIH OEL TWA	2 mg/m <sup>3</sup> (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021
<b>1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)</b>	
No additional information available	
<b>Bisphenol-A-diethoxy-methacrylate (24448-20-2)</b>	
No additional information available	
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
No additional information available	
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
No additional information available	
<b>Tricyclodecane dimethanol dimethacrylate (43048-08-4)</b>	
No additional information available	
<b>1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)</b>	
No additional information available	
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Silica crystalline - quartz
ACGIH OEL TWA	0.025 mg/m <sup>3</sup> (Respirable fraction)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2021
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Silica, crystalline quartz, respirable dust
Remark (OSHA)	(3) See Table Z-3.
<b>boric acid (10043-35-3)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2 mg/m <sup>3</sup> (Inhalable fraction)
ACGIH OEL STEL	6 mg/m <sup>3</sup> (Inhalable fraction)

## Additional information

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

## **8.2. Appropriate engineering controls**

Appropriate engineering controls	Ensure adequate ventilation.
Environmental exposure controls	Avoid release to the environment

### **8.3. Individual protection measures/Personal protective equipment**

#### **Personal protective equipment:**

Safety glasses Gloves Protective clothing Avoid all unnecessary exposure

#### **Hand protection:**

# HIT-HY 270, A

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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
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12	

### Eye protection:

Wear security glasses which protect from splashes

Type	Field of application	Characteristics
Safety glasses	Droplet	clear

### Skin and body protection:

Wear suitable protective clothing

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	light brown
Odour	characteristic
Odour threshold	Not determined
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 100 °C DIN EN ISO 1523
Relative evaporation rate (butylacetate=1)	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	1.66 g/cm³ DIN 51757
Solubility	Water: % Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Viscosity, kinematic	48192.771 mm²/s
Viscosity, dynamic	80 Pa·s HN-0333
Explosive limits	No data available
Explosive properties	Product is not explosive.
Oxidising properties	No data available

### 9.2. Other information

No additional information available

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### 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

#### HIT-HY 270, A

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

#### 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)

LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg

#### 4-tert-butylpyrocatechol (98-29-3)

LD50 oral rat	815 mg/kg bodyweight (Rat; Lethal; ECHA)
LD50 dermal rat	1331 mg/kg bodyweight (Rat; Lethal; ECHA)

#### 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)

#### 1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 3000 mg/kg

#### boric acid (10043-35-3)

LD50 oral rat	2660 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >2600 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg Rabbit; Experimental value; FIFRA (40 CFR)

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

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Quartz (SiO <sub>2</sub> ) (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	48192.771 mm <sup>2</sup> /s
Potential adverse human health effects and symptoms	No additional information available.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

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
4-tert-butylpyrocatechol (98-29-3)	
LC50 - Fish [1]	0.12 mg/l (96 h, Danio rerio, Lethal, ECHA)
ErC50 algae	10.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
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)
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)
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
LC50 - Fish [1]	2 mg/l
ErC50 algae	3.88 mg/l
NOEC chronic fish	0.138 mg/l
NOEC chronic crustacea	0.177 mg/l
boric acid (10043-35-3)	
LC50 - Fish [1]	447 mg/l
EC50 - Crustacea [1]	658 – 875 mg/l (48 h; Daphnia magna)
LC50 - Fish [2]	79 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Hard water)
EC50 - Crustacea [2]	19.7 mg/l (336 h; Daphnia magna)
ErC50 algae	290 mg/l
NOEC chronic fish	2.1 mg/l

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### 12.2. Persistence and degradability

HIT-HY 270, A	
Persistence and degradability	Not established.
4-tert-butylpyrocatechol (98-29-3)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	2.4 g O <sub>2</sub> /g substance
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Persistence and degradability	Readily biodegradable in water.
Quartz (SiO <sub>2</sub> ) (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

HIT-HY 270, A	
Bioaccumulative potential	Not established.
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1
4-tert-butylpyrocatechol (98-29-3)	
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
BCF - Fish [2]	366 l/kg
Partition coefficient n-octanol/water (Log Pow)	3.53
Partition coefficient n-octanol/water (Log Kow)	4.39
Quartz (SiO <sub>2</sub> ) (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.
boric acid (10043-35-3)	
BCF - Fish [2]	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

### 12.4. Mobility in soil

4-tert-butylpyrocatechol (98-29-3)	
Surface tension	No data available (test not performed)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

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<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
<b>boric acid (10043-35-3)</b>	
Ecology - soil	No (test)data on mobility of the substance available. May be harmful to plant growth, blooming and fruit formation.

### 12.5. Other adverse effects

Other information Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
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.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

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

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

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### Air transport

Not regulated

### Rail transport

Not regulated

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

1,1'-(p-tolylimino)dipropan-2-ol	CAS-No. 38668-48-3	0,1 - 1%
Bisphenol-A-diethoxy-methacrylate	CAS-No. 24448-20-2	5 – 10%
4-tert-butylpyrocatechol	CAS-No. 98-29-3	0,1 - 1%
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	CAS-No. 27813-02-1	10 – 25%
Tricyclodecane dimethanol dimethacrylate	CAS-No. 43048-08-4	2,5 - 5%
1,1,1-Trimethylolpropane trimethacrylate	CAS-No. 3290-92-4	2,5 - 5%
Quartz (SiO <sub>2</sub> )	CAS-No. 14808-60-7	25 – 40%
boric acid	CAS-No. 10043-35-3	0,1 - 1%

#### Tricyclodecane dimethanol dimethacrylate (43048-08-4)

EPA TSCA Regulatory Flag	P - P - indicates a commenced Premanufacture Notice (PMN) substance. S - S - indicates a substance that is identified in a final Significant New Use Rule.
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### 15.2. International regulations

#### CANADA

##### 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)

Listed on the Canadian DSL (Domestic Substances List)

##### 4-tert-butylpyrocatechol (98-29-3)

Listed on the Canadian DSL (Domestic Substances List)

##### 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)

Listed on the Canadian DSL (Domestic Substances List)

##### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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### SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date 01/21/2022  
Other information None.

Full text of H-statements:

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

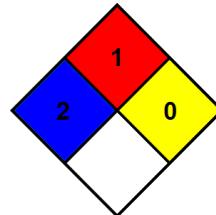
Abbreviations and acronyms:

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
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

NFPA health hazard 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.



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### Hazard Rating

Health	2 Moderate Hazard - Temporary or minor injury may occur
Flammability	1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
Personal protection	B B - Safety glasses, Gloves

### Indication of changes:

Section	Changed item	Change	Comments
2.1	GHS-US classification	Removed	
2.2	Hazard statements (GHS US)	Removed	
3	Composition/information on ingredients	Modified	

SDS\_US\_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-HY 270, B

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Issue date: 01/21/2022 Revision date: 01/21/2022 Supersedes: 12/03/2018 Version: 2.1

### SECTION 1: Identification

#### 1.1. Identification

Product form	Mixture
Product name	HIT-HY 270, B
Product code	BU Anchor

#### 1.2. Recommended use and restrictions on use

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

#### 1.3. Supplier

<b>Supplier</b>	<b>Department issuing data specification sheet</b>
Hilti, Inc.	Hilti Entwicklungsgesellschaft mbH
Legacy Tower, Suite 1000	Hiltistrasse 6
7250 Dallas Parkway	Kaufering, 86916 - Deutschland
Plano, TX 75024 - USA	T +49 8191 906876
T +1 9724035800	<a href="mailto:anchor.hse@hilti.com">anchor.hse@hilti.com</a>
1-800-879-8000 toll free - F +1 918 254 0522	

#### 1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Full text of H-statements: see section 16		

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

##### GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Warning

Hazard statements (GHS US)

H317 - May cause an allergic skin reaction.

Precautionary statements (GHS US)

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

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

No additional information available

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### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Quartz (SiO <sub>2</sub> )	(CAS-No.) 14808-60-7	40 – 60	Carc. 1A, H350
dibenzoyl peroxide	(CAS-No.) 94-36-0	5 – 10	Org. Perox. B, H241 Eye Irrit. 2A, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

## 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).
- 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 after eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

- Potential adverse human health effects and symptoms No additional information available.
- Symptoms/effects after skin contact May cause an allergic skin reaction.
- Symptoms/effects after eye contact May cause severe irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

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

### 5.2. Specific hazards arising from the chemical

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

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

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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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

HIT-HY 270, B	
USA - ACGIH - Occupational Exposure Limits	
Local name	Benzoyl peroxide
ACGIH OEL TWA	5 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021

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USA - OSHA - Occupational Exposure Limits	
Local name	Benzoyl peroxide
OSHA PEL TWA [1]	5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Quartz (SiO <sub>2</sub> ) (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silica crystalline - quartz
ACGIH OEL TWA	0.025 mg/m <sup>3</sup> (Respirable fraction)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Silica, crystalline quartz, respirable dust
Remark (OSHA)	(3) See Table Z-3.
dibenzoyl peroxide (94-36-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Benzoyl peroxide
ACGIH OEL TWA	5 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Benzoyl peroxide
OSHA PEL TWA [1]	5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

### Additional information

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

## 8.2. Appropriate engineering controls

Appropriate engineering controls	Ensure adequate ventilation.
Environmental exposure controls	Avoid release to the environment.

## 8.3. Individual protection measures/Personal protective equipment

### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

### 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
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12	

### Eye protection:

Wear security glasses which protect from splashes

Type	Field of application	Characteristics
Safety glasses	Droplet	clear

### Skin and body protection:

Wear suitable protective clothing

### Personal protective equipment symbol(s):

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### Other information:

Do not eat, drink or smoke during use.

## 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
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	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/cm³ DIN 51757
Solubility	Water: % Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Viscosity, kinematic	52941.176 mm²/s
Viscosity, dynamic	90 Pa·s HN-0333
Explosive limits	No data available
Explosive properties	Product is not explosive.
Oxidising properties	No data available

### 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.

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### 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 pH: ≈ 6
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

#### Quartz (SiO<sub>2</sub>) (14808-60-7)

IARC group	1 - Carcinogenic to humans
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#### dibenzoyl peroxide (94-36-0)

IARC group	3 - Not classifiable
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	52941.176 mm <sup>2</sup> /s
Potential adverse human health effects and symptoms	No additional information available.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

dibenzoyl peroxide (94-36-0)	
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)
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 mg/l

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## 12.2. Persistence and degradability

<b>HIT-HY 270, B</b>	
Persistence and degradability	Not established.
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
<b>dibenzoyl peroxide (94-36-0)</b>	
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.

### **12.3. Bioaccumulative potential**

<b>HIT-HY 270, B</b>	
Bioaccumulative potential	Not established.
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>dibenzoyl peroxide (94-36-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.71
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

## 12.4. Mobility in soil

<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
<b>dibenzoyl peroxide (94-36-0)</b>	
Surface tension	No data available (test not performed)
Organic Carbon Normalized Adsorption Coefficient (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**

## Other information

Avoid release to the environment.

## **SECTION 13: Disposal considerations**

### **13.1. Disposal methods**

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
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.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / RID

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ADR	IMDG	IATA	RID
<b>14.1. UN number</b>			
UN 3077	UN 3077	UN 3077	UN 3077
<b>14.2. UN proper shipping name</b>			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
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

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Quartz (SiO <sub>2</sub> )	CAS-No. 14808-60-7	40 – 60%
dibenzoyl peroxide	CAS-No. 94-36-0	5 – 10%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

dibenzoyl peroxide	CAS-No. 94-36-0	5 – 10%
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### 15.2. International regulations

#### CANADA

##### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

##### dibenzoyl peroxide (94-36-0)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date	01/21/2022
Other information	None.

# HIT-HY 270, B

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-statements:

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H350	May cause cancer.

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
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

NFPA health hazard

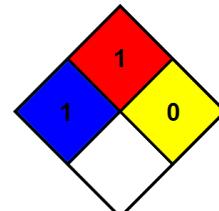
1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

0 - Material that in themselves are normally stable, even under fire conditions.



SDS\_US\_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-HY 270

## Safety information for 2-Component-products

Issue date: 21/01/2022

Revision date: 21/01/2022

Supersedes: 04/12/2018

Version: 3.0

## SECTION 1: Kit identification

### 1.1 Product identifier

Trade name

HIT-HY 270



Product code

BU Anchor

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

Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
L5N 6S2 Mississauga, Ontario - Canada  
T +1905 8139200  
1-800-363-4458 toll free - F +1 905 813 9009

## SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

## SECTION 3: Kit contents

### Classification of the Product

#### Classification (GHS CA)

Serious eye damage/eye irritation, Category 2A H319  
Skin sensitisation, Category 1 H317  
Reproductive toxicity, Category 1B H360

### Label elements

#### GHS CA labelling

Hazard pictograms (GHS CA)



Signal word (GHS CA)

Danger

Hazardous ingredients

methacrylates, dibenzoyl peroxide, boric acid

Hazard statements (GHS CA)

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H360 - May damage fertility or the unborn child.

Precautionary statements (GHS CA)

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

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

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

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

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

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

# HIT-HY 270

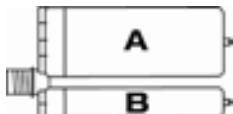
## Safety information for 2-Component-products

### Additional information

2-Component-foilpack, contains:

Component A: Urethane methacrylate resin, inorganic filler

Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	Classification (GHS CA)
HIT-HY 270, B		1	pcs (pieces)	Skin Sens. 1, H317
HIT-HY 270, A		1	pcs (pieces)	Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 1B, H360

### 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
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.

# HIT-HY 270

## Safety information for 2-Component-products

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### 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-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Issue date: 01/21/2022

Revision date: 01/21/2022

Supersedes: 12/04/2018

Version: 2.0

## SECTION 1: Identification

### 1.1. Product identifier

Product form	Mixture
Product name	HIT-HY 270, A
Product code	BU Anchor

### 1.2. Recommended use and restrictions on use

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

### 1.3. Supplier

**Supplier**  
Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
L5N 6S2 Mississauga, Ontario - Canada  
T +1905 8139200  
1-800-363-4458 toll free - F +1 905 813 9009

**Department issuing data specification sheet**  
Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

### 1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries)
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## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS CA)

Serious eye damage/eye irritation, Category 2A	H319	Causes serious eye irritation.
Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Reproductive toxicity, Category 1B	H360	May damage fertility or the unborn child.
Full text of H-statements: see section 16		

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

#### GHS CA labelling

Hazard pictograms (GHS CA)



Signal word (GHS CA)

Danger

Hazard statements (GHS CA)

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H360 - May damage fertility or the unborn child.

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

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

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

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

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

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

### 2.3. Other hazards

No additional information available

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 2.4. Unknown acute toxicity (GHS CA)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Quartz (SiO <sub>2</sub> )	quartz / quartz (SiO <sub>2</sub> ) / quartz flour, 1%≤conc respirable crystalline silica<10% / silicon (di)oxide (quartz), 1%≤conc respirable crystalline silica<10%	(CAS-No.) 14808-60-7	25 – 40	Carc. 1A, H350
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	1,2-propanediol, 2-methyl, monomethacrylate / 2-propenoic acid, 2-methyl-, 2-hydroxymethylethyl ester / 2-propenoic acid, 2-methyl-, monoester with 1,2-propanediol / hydroxypropyl methacrylate / methacrylic acid, ester with 1,2-propanediol / methacrylic acid, monoester with 1,2-propanediol / methacrylic acid, monoester with propane-1,2-diol / propylene glycol monomethacrylate / ROCRYL 410	(CAS-No.) 27813-02-1	10 – 25	Eye Irrit. 2A, H319 Skin Sens. 1, H317
Bisphenol-A-diethoxy-methacrylate		(CAS-No.) 24448-20-2	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Tricyclodecane dimethanol dimethacrylate		(CAS-No.) 43048-08-4	2,5 - 5	Skin Sens. 1B, H317
1,1,1-Trimethylolpropane trimethacrylate		(CAS-No.) 3290-92-4	2,5 - 5	Not classified
1,1'-(p-tolylimino)dipropan-2-ol	DiPpT	(CAS-No.) 38668-48-3	0,1 - 1	Acute Tox. 2 (Oral), H300 Eye Irrit. 2A, H319
boric acid	boric acid basilit B / boracic acid / boric acid / boric acid (H3-BO3) / borofax / boron trihydroxide / dr.'s 1 flea terminator DF / dr.'s 1 flea terminator DFPBO / dr.'s 1 flea terminator DT / dr.'s 1 flea terminator DTPBO / E284 / epa pesticide code 011001 / flea prufe / LUCHEM AT / OPTIBOR NF / OPTIBOR SP / OPTIBOR SQ / OPTIBOR TG / OPTIBOR TP / orthoboric acid / ortho-boric acid / sassolite / super flea eliminator / three elephant / trihydroxyborone	(CAS-No.) 10043-35-3	0,1 - 1	Repr. 1B, H360

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
4-tert-butylpyrocatechol	(dimethyl-1,1 ethyl)-4 dihydroxy-1,2 benzene / 1,2-Benzenediol, 4-(1,1-dimethylethyl)- / 4-(1,1-dimethylethyl)-1,2-benzenediol / 4,6-butylcatechol / 4-TBC / 4-tert-butylcatechol / 4-t-butylpyrocatechol / 4-tert-butyl-1,2-benzenediol / 4-tert-butyl-1,2-dihydroxybenzene / 4-tert-butylcatechol / 4-tert-butylpyrocatechol / 4-tert-butylpyroketchin / 4-tertiary-butylcatechol / 4-tertiary-butylcatechin / 4-tertiary-butylcatechol / 4-tertiary-butylpyrocatechol / para-tertiary-butylcatechol / para-tertiary-butylpyrocatechol / p-t-butyl catechol / p-t-butylpyrocatechol / pyrocatechol, 4-tert-butyl- / synox TBC / TBC (=4-tert-butylcatechol)	(CAS-No.) 98-29-3	0,1 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

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 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.
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).

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.
Potential adverse human health effects and symptoms	No additional information available.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media Water spray. Carbon dioxide. Dry powder. Foam. Sand.

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media Do not use a heavy water stream.

### 5.3. Specific hazards arising from the hazardous product

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

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 5.4. Special protective equipment and precautions for fire-fighters

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

## SECTION 6: Accidental release measures

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

General measures	Spilled material may present a slipping hazard.
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### 6.2. Methods and materials for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

### 6.3. Reference to other sections

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

## 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.
Handling temperature	5 – 40 °C

### 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.
Heat and ignition sources	Keep away from heat and direct sunlight.
Storage temperature	5 – 25 °C

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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. Appropriate engineering controls

Appropriate engineering controls	Ensure adequate ventilation.
Environmental exposure controls	Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 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
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12	

### Eye protection:

Wear security glasses which protect from splashes

Type	Field of application	Characteristics
Safety glasses	Droplet	clear

### Skin and body protection:

Wear suitable protective clothing

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	light brown
Odour	characteristic
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Relative evaporation rate (ether=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 100 °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
Vapour pressure at 50 °C	No data available
Relative density	No data available
Density	1.66 g/cm³ DIN 51757
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	48192.771 mm²/s
Viscosity, dynamic	80 Pa·s HN-0333
Explosive properties	Product is not explosive.

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Explosive limits No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

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

## 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

#### HIT-HY 270, A

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Vapours)	> 20 mg/l/4h

#### 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)

LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CA (oral)	25 mg/kg bodyweight

#### 4-tert-butylpyrocatechol (98-29-3)

LD50 oral rat	815 mg/kg bodyweight (Rat; Lethal; ECHA)
LD50 oral	2820 mg/kg
LD50 dermal rat	1331 mg/kg bodyweight (Rat;Lethal; ECHA)
LD50 dermal	630 mg/kg
ATE CA (oral)	815 mg/kg bodyweight
ATE CA (Dermal)	630 mg/kg bodyweight

#### 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)

#### 1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 3000 mg/kg

#### boric acid (10043-35-3)

LD50 oral rat	2660 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >2600 mg/kg bodyweight; Rat; Experimental value)
LD50 oral	2660 mg/kg
LD50 dermal rabbit	> 2000 mg/kg Rabbit; Experimental value; FIFRA (40 CFR)
ATE CA (oral)	2660 mg/kg bodyweight

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

### **HIT-HY 270, A**

Viscosity, kinematic	48192.771 mm <sup>2</sup> /s
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Potential adverse human health effects and symptoms	No additional information available.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

## 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

### 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
Partition coefficient n-octanol/water (Log Kow)	2.1
NOEC (acute)	57.8 mg/l

### 4-tert-butylpyrocatechol (98-29-3)

LC50 - Fish [1]	0.12 mg/l (96 h, Danio rerio, Lethal, ECHA)
ErC50 algae	10.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

### 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)

# HIT-HY 270, A

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)
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)

<b>1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)</b>	
LC50 - Fish [1]	2 mg/l
ErC50 algae	3.88 mg/l
NOEC chronic fish	0.138 mg/l
NOEC chronic crustacea	0.177 mg/l
BCF - Fish [2]	366 l/kg
Partition coefficient n-octanol/water (Log Kow)	4.39
Partition coefficient n-octanol/water (Log Pow)	3.53

<b>boric acid (10043-35-3)</b>	
LC50 - Fish [1]	447 mg/l
LC50 - Fish [2]	79 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Hard water)
EC50 - Crustacea [1]	658 – 875 mg/l (48 h; Daphnia magna)
EC50 - Crustacea [2]	19.7 mg/l (336 h; Daphnia magna)
ErC50 algae	290 mg/l
NOEC chronic fish	2.1 mg/l
BCF - Fish [2]	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)

### 12.2. Persistence and degradability

<b>HIT-HY 270, A</b>	
Persistence and degradability	Not established.
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Persistence and degradability	Not readily biodegradable in water.
ThOD	2.4 g O <sub>2</sub> /g substance
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

<b>HIT-HY 270, A</b>	
Bioaccumulative potential	Not established.
<b>1,1'-(p-tolylimino)dipropen-2-ol (38668-48-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	2.1
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
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)

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<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)
<b>1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)</b>	
BCF - Fish [2]	366 l/kg
Partition coefficient n-octanol/water (Log Pow)	3.53
Partition coefficient n-octanol/water (Log Kow)	4.39
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>boric acid (10043-35-3)</b>	
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
BCF - Fish [2]	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)
<b>12.4. Mobility in soil</b>	
<b>1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	2.1
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Surface tension	No data available (test not performed)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>	
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	0.97 (OECD 102 method)
<b>1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.53
Partition coefficient n-octanol/water (Log Kow)	4.39
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
<b>boric acid (10043-35-3)</b>	
Ecology - soil	No (test)data on mobility of the substance available. May be harmful to plant growth, blooming and fruit formation.
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)

## 12.5. Other adverse effects

Ozone	Not classified
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.

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## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

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.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

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

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Rail transport

Not regulated

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

<b>HIT-HY 270, A</b>	
Canada DSL & NDSL Flags	All components of this product are listed, or excluded from listing, on the Canadian Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
<b>1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

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according to the Hazardous Products Regulation (February 11, 2015)

<b>4-tert-butylpyrocatechol (98-29-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>
Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

<b>1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Bisphenol-A-diethoxy-methacrylate (24448-20-2)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>4-tert-butylpyrocatechol (98-29-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Tricyclodecane dimethanol dimethacrylate (43048-08-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>boric acid (10043-35-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

## SECTION 16: Other information

Issue date 01-21-2022  
Revision date 01-21-2022  
Supersedes 12-04-2018

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification (GHS CA)	Removed	
2.2	Hazard statements (GHS CA)	Removed	
3.2	Composition/information on ingredients	Modified	

Other information None.

Full text of H-statements:

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

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H319	Causes serious eye irritation.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

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
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

SDS\_CA\_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-HY 270, B

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Issue date: 01/21/2022

Revision date: 01/21/2022

Supersedes: 12/04/2018

Version: 2.1

## SECTION 1: Identification

### 1.1. Product identifier

Product form	Mixture
Product name	HIT-HY 270, B
Product code	BU Anchor

### 1.2. Recommended use and restrictions on use

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

### 1.3. Supplier

**Supplier**  
Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
L5N 6S2 Mississauga, Ontario - Canada  
T +1905 8139200  
1-800-363-4458 toll free - F +1 905 813 9009

**Department issuing data specification sheet**  
Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

### 1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries)
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## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS CA)

Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Full text of H-statements: see section 16		

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

#### GHS CA labelling

Hazard pictograms (GHS CA)



Warning

Signal word (GHS CA)

Hazard statements (GHS CA)

Precautionary statements (GHS CA)

H317 - May cause an allergic skin reaction.

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

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

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

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

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

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

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS CA)

No data available

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according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Quartz (SiO <sub>2</sub> )	quartz / quartz (SiO <sub>2</sub> ) / quartz flour, 1%≤conc respirable crystalline silica<10% / silicon (di)oxide (quartz), 1%≤conc respirable crystalline silica<10%	(CAS-No.) 14808-60-7	40 – 60	Carc. 1A, H350
dibenzoyl peroxide	dibenzoyl peroxide; benzoyl peroxide	(CAS-No.) 94-36-0	5 – 10	Org. Perox. B, H241 Eye Irrit. 2A, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- 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 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.
- 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).

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact May cause an allergic skin reaction.
- Symptoms/effects after eye contact May cause severe irritation.
- Potential adverse human health effects and symptoms No additional information available.

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

Suitable extinguishing media Water spray. Carbon dioxide. Dry powder. Foam. Sand.

#### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media Do not use a heavy water stream.

#### 5.3. Specific hazards arising from the hazardous product

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

#### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

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## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

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.

### 6.2. Methods and materials for containment and cleaning up

For containment

Collect spillage.

Methods for cleaning up

This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.

Other information

Dispose of materials or solid residues at an authorized site.

### 6.3. Reference to other sections

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

## 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.

Heat and ignition sources

Keep away from heat and direct sunlight.

Storage temperature

5 – 25 °C

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Additional information

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

### 8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure adequate ventilation.

Environmental exposure controls

Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

#### 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.

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according to the Hazardous Products Regulation (February 11, 2015)

Type	Material	Permeation	Thickness (mm)	Penetration
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12	

**Eye protection:**

Wear security glasses which protect from splashes

Type	Field of application	Characteristics
Safety glasses	Droplet	clear

**Skin and body protection:**

Wear suitable protective clothing

**Personal protective equipment symbol(s):****Other information:**

Do not eat, drink or smoke during use.

## 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
Relative evaporation rate (ether=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
Vapour pressure at 50 °C	No data available
Relative density	No data available
Density	1.7 g/cm³ DIN 51757
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	52941.176 mm²/s
Viscosity, dynamic	90 Pa·s HN-0333
Explosive properties	Product is not explosive.
Explosive limits	No data available

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### 9.2. Other information

SADT : 65 °C

## SECTION 10: Stability and reactivity

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

## 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
	pH: ≈ 6
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
	Not classified
STOT-repeated exposure	
Aspiration hazard	Not classified

### HIT-HY 270, B

Viscosity, kinematic	52941.176 mm <sup>2</sup> /s
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Potential adverse human health effects and symptoms	No additional information available.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified
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according to the Hazardous Products Regulation (February 11, 2015)

Hazardous to the aquatic environment, long-term (chronic) Not classified

<b>dibenzoyl peroxide (94-36-0)</b>	
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 chronic fish	0.001 mg/l
Partition coefficient n-octanol/water (Log Pow)	3.71
Organic Carbon Normalized Adsorption Coefficient (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)
NOEC (acute)	0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)

### 12.2. Persistence and degradability

<b>HIT-HY 270, B</b>	
Persistence and degradability	Not established.
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
<b>dibenzoyl peroxide (94-36-0)</b>	
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative potential

<b>HIT-HY 270, B</b>	
Bioaccumulative potential	Not established.
<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>dibenzoyl peroxide (94-36-0)</b>	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	3.71
Organic Carbon Normalized Adsorption Coefficient (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)

### 12.4. Mobility in soil

<b>Quartz (SiO<sub>2</sub>) (14808-60-7)</b>	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
<b>dibenzoyl peroxide (94-36-0)</b>	
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for mobility in soil.
Organic Carbon Normalized Adsorption Coefficient (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)
Partition coefficient n-octanol/water (Log Pow)	3.71

### 12.5. Other adverse effects

Ozone	Not classified
Other information	Avoid release to the environment.

# HIT-HY 270, B

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
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.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number</b>			
UN 3077	UN 3077	UN 3077	UN 3077
<b>14.2. UN proper shipping name</b>			
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
<b>14.3. Transport hazard class(es)</b>			
9 	9 	9 	9 
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
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

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## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

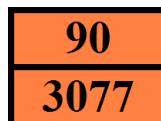
Mixed packing provisions (ADR)

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

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

#### HIT-HY 270, B

Canada DSL & NDSL Flags	All components of this product are listed, or excluded from listing, on the Canadian Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
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#### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

#### dibenzoyl peroxide (94-36-0)

Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

#### Quartz (SiO<sub>2</sub>) (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### dibenzoyl peroxide (94-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## SECTION 16: Other information

Issue date

01-21-2022

Revision date

01-21-2022

# HIT-HY 270, B

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Supersedes 12-04-2018

Other information None.

### Full text of H-statements:

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H350	May cause cancer.

### 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
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

SDS\_CA\_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-HY 270

## Information de sécurité relative aux produits 2-composants

Date d'émission: 21/01/2022

Date de révision: 21/01/2022

Remplace la fiche: 04/12/2018

Version: 3.0

## RUBRIQUE 1: Identification du kit

### 1.1 Identificateur de produit

Nom commercial

HIT-HY 270



Code du produit

BU Anchor

### 1.2 Renseignements concernant le fournisseur de la Information de sécurité relative aux produits 2-composants

Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
L5N 6S2 Mississauga, Ontario - Canada  
T +1905 8139200  
1-800-363-4458 toll free - F +1 905 813 9009

## RUBRIQUE 2: Information générale

Stockage

Température de conservation : 5 - 25 °C

Une FDS pour chacun de ces composants est incluse. Merci de ne séparer aucune FDS de ce document

Ce kit devrait être manipulé selon les bonnes pratiques de laboratoires et un équipement de protection personnel approprié devrait être utilisé.

## RUBRIQUE 3: Contenu du kit

### Classification du produit

#### Classification (GHS CA)

Lésions oculaires graves/irritation oculaire, catégorie 2A H319  
Sensibilisation cutanée, catégorie 1 H317  
Toxicité pour la reproduction, catégorie 1B H360

### Éléments d'étiquetage

#### Etiquetage GHS CA

Pictogrammes de danger (GHS CA)



Mention d'avertissement (GHS CA)

Danger

Composants dangereux

méthacrylates, peroxyde de dibenzoyle, acide borique

Mentions de danger (GHS CA)

H317 - Peut provoquer une allergie cutanée.

H319 - Provoque une sévère irritation des yeux.

H360 - Peut nuire à la fertilité ou au fœtus.

Conseils de prudence (GHS CA)

P280 - Porter un équipement de protection des yeux, des vêtements de protection, des gants de protection.

P262 - Éviter tout contact avec les yeux, la peau ou les vêtements.

P305+P351+P338 - EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P333+P313 - En cas d'irritation ou d'éruption cutanée: consulter un médecin.

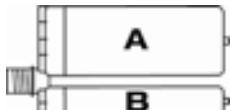
# HIT-HY 270

## Information de sécurité relative aux produits 2-composants

P337+P313 - Si l'irritation oculaire persiste: consulter un médecin.  
P302+P352 - EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau.

### Indications complémentaires

Cartouche 2-composants, contient:  
Composant A: résine méthacrylique  
Composant B: peroxyde de dibenzoyle



Nom	Description générale	Quantité	Unité	Classification (GHS CA)
HIT-HY 270, B		1	pcs (pièces)	Skin Sens. 1, H317
HIT-HY 270, A		1	pcs (pièces)	Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 1B, H360

### RUBRIQUE 4: Conseil général

Conseil général

Usage réservé aux utilisateurs professionnels

### RUBRIQUE 5: Conseils d'utilisation

Mesures générales	Risque de glissade sur la matière renversée
Précautions pour la protection de l'environnement	Eviter la pénétration dans les égouts et les eaux potables Avertir les autorités si le liquide pénètre dans les égouts ou dans les eaux du domaine public
Conditions de stockage	Tenir au frais. Protéger du rayonnement solaire.
Précautions à prendre pour une manipulation sans danger	Porter un équipement de protection individuel Eviter le contact avec la peau et les yeux Se laver les mains et toute autre zone exposée avec un savon doux et de l'eau, avant de manger, de boire, de fumer, et avant de quitter le travail Assurer une bonne ventilation de la zone de travail afin d'éviter la formation de vapeurs
Procédés de nettoyage	Ce produit et son récipient doivent être éliminés de manière sûre, conformément à la législation locale Ramasser mécaniquement le produit Stocker à l'écart des autres matières.
Pour la rétention	Recueillir le produit répandu.
Matières incompatibles	Sources d'inflammation Rayons directs du soleil
Produits incompatibles	Bases fortes Acides forts

### RUBRIQUE 6: Premiers secours

Premiers soins après contact oculaire	Rincer immédiatement et abondamment à l'eau Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer. Consulter un médecin si la douleur ou la rougeur persistent
Premiers soins après ingestion	Rincer la bouche Consulter un médecin. Ne pas faire vomir Consulter d'urgence un médecin
Premiers soins après inhalation	Transporter la personne à l'extérieur et la maintenir dans une position où elle peut confortablement respirer. Permettre au sujet de respirer de l'air frais

# HIT-HY 270

## Information de sécurité relative aux produits 2-composants

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Premiers soins après contact avec la peau	Mettre la victime au repos Laver les vêtements contaminés avant réutilisation. Laver abondamment à l'eau/... En cas d'irritation ou d'éruption cutanée: Consulter un médecin.
Premiers soins général	Enlever immédiatement tous les vêtements contaminés. Ne jamais administrer quelque chose par la bouche à une personne inconsciente En cas de malaise consulter un médecin (si possible lui montrer l'étiquette)
Symptômes/effets après contact oculaire	Peut provoquer une irritation sévère
Symptômes/effets après contact avec la peau	Peut provoquer une allergie cutanée.

## RUBRIQUE 7: Mesures de lutte contre l'incendie

Instructions de lutte contre l'incendie	Refroidir les conteneurs exposés par pulvérisation ou brouillard d'eau Soyez prudent lors du combat de tout incendie de produits chimiques Eviter que les eaux usées de lutte contre l'incendie contaminent l'environnement
Protection en cas d'incendie	Appareil de protection respiratoire autonome isolant Ne pas pénétrer dans la zone de feu sans équipement de protection, y compris une protection respiratoire
Produits de décomposition dangereux en cas d'incendie	La décomposition thermique génère : Dioxyde de carbone Monoxyde de carbone

## RUBRIQUE 8: Autres informations

Aucune donnée disponible

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

Date d'émission: 01/21/2022

Date de révision: 01/21/2022

Remplace la fiche: 12/04/2018

Version: 2.0

## RUBRIQUE 1: Identification

### 1.1. Identificateur de produit

Forme du produit	Mélange
Nom du produit	HIT-HY 270, A
Code du produit	BU Anchor

### 1.2. Utilisation recommandée et limitations d'utilisation

Utilisation recommandée	Mortier composite pour fixateurs dans le domaine de la construction
Restrictions d'emploi	Réserve à un usage professionnel

### 1.3. Fournisseur

**Fournisseur**  
Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
L5N 6S2 Mississauga, Ontario - Canada  
T +1905 8139200  
1-800-363-4458 toll free - F +1 905 813 9009

**Service établissant la fiche technique**  
Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

### 1.4. Numéro d'appel d'urgence

Numéro d'urgence	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries)
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## RUBRIQUE 2: Identification des dangers

### 2.1. Classification de la substance ou du mélange

#### Classification (GHS CA)

Lésions oculaires graves/irritation oculaire, catégorie 2AH319	H317	Provoque une sévère irritation des yeux.
Sensibilisation cutanée, catégorie 1	H317	Peut provoquer une allergie cutanée.
Toxicité pour la reproduction, catégorie 1B	H360	Peut nuire à la fertilité ou au fœtus.
Texte intégral des mentions H : voir rubrique 16		

### 2.2. Éléments d'étiquetage GHS, y compris conseils de prudence

#### Etiquetage GHS CA

Pictogrammes de danger (GHS CA)



Mention d'avertissement (GHS CA)

Danger

Mentions de danger (GHS CA)

H317 - Peut provoquer une allergie cutanée.  
H319 - Provoque une sévère irritation des yeux.

Conseils de prudence (GHS CA)

H360 - Peut nuire à la fertilité ou au fœtus.  
P280 - Porter un équipement de protection des yeux, des vêtements de protection, des gants de protection.  
P262 - Éviter tout contact avec les yeux, la peau ou les vêtements.  
P305+P351+P338 - EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.  
P333+P313 - En cas d'irritation ou d'éruption cutanée: consulter un médecin.  
P337+P313 - Si l'irritation oculaire persiste: consulter un médecin.  
P302+P352 - EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau.

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

### 2.3. Autres dangers

Pas d'informations complémentaires disponibles

### 2.4. Toxicité aiguë inconnue (GHS CA)

Aucune donnée disponible

## RUBRIQUE 3: Composition/informations sur les composants

### 3.1. Substances

Non applicable

### 3.2. Mélanges

Nom	Nom chimique / Synonymes	Identificateur de produit	%	Classification (GHS CA)
Quarz	quartz (SiO <sub>2</sub> )	(N° CAS) 14808-60-7	25 – 40	Carc. 1A, H350
Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol	acide méthacrylique, monoester avec propane-1,2-diol / hydroxypropylméthacrylate / méthacrylate de hydroxypropyle	(N° CAS) 27813-02-1	10 – 25	Eye Irrit. 2A, H319 Skin Sens. 1, H317
Biphénol-A-diéthoxy-méthacrylate		(N° CAS) 24448-20-2	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Tricyclodecane diméthanol diméthacrylate		(N° CAS) 43048-08-4	2,5 - 5	Skin Sens. 1B, H317
Triméthacrylate de 1,1,1-triméthylolpropane		(N° CAS) 3290-92-4	2,5 - 5	Non classé
1,1'-(p-tolylimino) dipropane-2-ol	DiPpT	(N° CAS) 38668-48-3	0,1 - 1	Acute Tox. 2 (Voie orale), H300 Eye Irrit. 2A, H319
acide borique	acide borique acide boracique / acide borique / acide de borax / acide ortho-borique / E284 / fleurs de borax / sel sédatif de Homberg	(N° CAS) 10043-35-3	0,1 - 1	Repr. 1B, H360
4-tert-butylpyrocatechol	1,2-dihydroxy-4-tertiaire-butylbenzène / 4-(1,1-diméthyléthyl)-1,2-benzénediol / 4-TBC / 4-tert-butyl-1,2-dihydroxybenzène / 4-tert-butylcatechol / 4-tert-butylpyrocatechol / 4-tertiaire-butyl-1,2-dihydroxybenzène / 4-tertiaire-butylcatechol / 4-tertiaire-butylpyrocatechol / para-tertiaire-butylcatechol / tertiaire-butyl-4-pyrocatechol	(N° CAS) 98-29-3	0,1 - 1	Acute Tox. 4 (Voie orale), H302 Acute Tox. 4 (Voie cutanée), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317

Texte complet des classes de danger et des phrases H : voir rubrique 16

## RUBRIQUE 4: Premiers secours

### 4.1. Description des premiers secours

Premiers soins après inhalation

Transporter la personne à l'extérieur et la maintenir dans une position où elle peut confortablement respirer. Permettre au sujet de respirer de l'air frais. Mettre la victime au repos.

Premiers soins après contact avec la peau

Laver les vêtements contaminés avant réutilisation. Laver abondamment à l'eau/.... En cas d'irritation ou d'éruption cutanée: Consulter un médecin.

Premiers soins après contact oculaire

Rincer immédiatement et abondamment à l'eau. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer. Consulter un médecin si la douleur ou la rougeur persistent.

Premiers soins après ingestion

Rincer la bouche. Consulter un médecin. Ne pas faire vomir. Consulter d'urgence un médecin.

Premiers soins général

Enlever immédiatement tous les vêtements contaminés. Ne jamais administrer quelque chose par la bouche à une personne inconsciente. En cas de malaise consulter un médecin (si possible lui montrer l'étiquette).

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

### 4.2. Principaux symptômes et effets, aigus et différés

Symptômes/effets après contact avec la peau	Peut provoquer une allergie cutanée.
Symptômes/effets après contact oculaire	Peut provoquer une irritation sévère.
Effets néfastes potentiels sur la santé humaine et symptômes possibles	Pas d'informations complémentaires disponibles.

### 4.3. Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires

Pas d'informations complémentaires disponibles

## RUBRIQUE 5: Mesures de lutte contre l'incendie

### 5.1. Moyens d'extinction appropriés

Moyens d'extinction appropriés Eau pulvérisée. Dioxyde de carbone. Poudre sèche. Mousse. Sable.

### 5.2. Moyens d'extinction inappropriés

Agents d'extinction non appropriés Ne pas utiliser un fort courant d'eau.

### 5.3. Dangers spécifiques dus au produit dangereux

Produits de décomposition dangereux en cas d'incendie La décomposition thermique génère : Dioxyde de carbone. Monoxyde de carbone.

### 5.4. Équipements de protection spéciaux et précautions pour les pompiers

Instructions de lutte contre l'incendie Refroidir les conteneurs exposés par pulvérisation ou brouillard d'eau. Soyez prudent lors du combat de tout incendie de produits chimiques. Eviter que les eaux usées de lutte contre l'incendie contaminent l'environnement.

Protection en cas d'incendie Appareil de protection respiratoire autonome isolant. Ne pas pénétrer dans la zone de feu sans équipement de protection, y compris une protection respiratoire.

## RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

### 6.1. Précautions individuelles, équipement de protection et procédures d'urgence

Mesures générales Risque de glissade sur la matière renversée.

### 6.2. Méthodes et matériaux de confinement et de nettoyage

Pour la rétention Recueillir le produit répandu.  
Procédés de nettoyage Ce produit et son récipient doivent être éliminés de manière sûre, conformément à la législation locale. Ramasser mécaniquement le produit. Stocker à l'écart des autres matières.  
Autres informations Eliminer les matières ou résidus solides dans un centre autorisé.

### 6.3. Référence aux autres rubriques

Pour plus d'informations, se reporter à la rubrique 8 : "Contrôle de l'exposition-protection individuelle"

## RUBRIQUE 7: Manipulation et stockage

### 7.1. Précautions à prendre pour une manipulation sans danger

Précautions à prendre pour une manipulation sans danger Porter un équipement de protection individuel. Eviter le contact avec la peau et les yeux. Se laver les mains et toute autre zone exposée avec un savon doux et de l'eau, avant de manger, de boire, de fumer, et avant de quitter le travail. Assurer une bonne ventilation de la zone de travail afin d'éviter la formation de vapeurs.

Mesures d'hygiène Ne pas manger, boire ou fumer en manipulant ce produit. Se laver les mains après toute manipulation. Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail. Laver les vêtements contaminés avant réutilisation.

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

Température de manipulation 5 – 40 °C

### 7.2. Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités

Conditions de stockage	Tenir au frais. Protéger du rayonnement solaire.
Produits incompatibles	Bases fortes. Acides forts.
Matières incompatibles	Sources d'inflammation. Rayons directs du soleil.
Chaleur et sources d'ignition	Eviter la chaleur et le soleil direct.
Température de stockage	5 – 25 °C

## RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

### 8.1. Paramètres de contrôle

Indications complémentaires	Le produit est de consistance pâteuse. Le taux limite d'exposition aux poussières respirables ne s'applique pas à ce produit.
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### 8.2. Contrôles techniques appropriés

Contrôles techniques appropriés	Assurer une ventilation appropriée.
Contrôle de l'exposition de l'environnement	Éviter le rejet dans l'environnement.

### 8.3. Mesures de protection individuelle/Équipement de protection individuelle

#### Equipement de protection individuelle:

Lunettes de sécurité. Gants. Vêtements de protection. Eviter toute exposition inutile.

#### Protection des mains:

Porter des gants de protection. Le temps de perméation ne correspond pas au temps d'usure maximum ! Généralement, il doit être réduit. Tout contact avec des mélanges de substances ou différentes substances peut réduire la durée effective de la fonction de protection.

Type	Matériau	Perméation	Epaisseur (mm)	Pénétration
Gants jetables	Caoutchouc nitrile (NBR)	6 (> 480 minutes)	0,12	

#### Protection oculaire:

Utiliser des lunettes de sécurité qui protègent des éclaboussures

Type	Champ d'application	Caractéristiques
Lunettes de sécurité	Gouttelettes	lumineux

#### Protection de la peau et du corps:

Porter un vêtement de protection approprié

#### Symbol(s) de l'équipement de protection individuelle:



#### Autres informations:

Ne pas manger, ne pas boire et ne pas fumer pendant l'utilisation.

## RUBRIQUE 9: Propriétés physiques et chimiques

### 9.1. Informations sur les propriétés physiques et chimiques essentielles

État physique	Solide
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# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

Apparence	Pâte thixotrope.
Couleur	brun clair
Odeur	caractéristique
Seuil olfactif	non déterminé
pH	Aucune donnée disponible
Vitesse d'évaporation relative (l'acétate butylique=1)	Aucune donnée disponible
Vitesse d'évaporation relative (éther=1)	Aucune donnée disponible
Point de fusion	Aucune donnée disponible
Point de congélation	Aucune donnée disponible
Point d'ébullition	Aucune donnée disponible
Point d'éclair	> 100 °C DIN EN ISO 1523
Température d'auto-inflammation	Non auto-inflammable
Température de décomposition	Aucune donnée disponible
Inflammabilité (solide, gaz)	Ininflammable.
Pression de vapeur	Aucune donnée disponible
Pression de vapeur à 50 °C	Aucune donnée disponible
Densité relative	Aucune donnée disponible
Masse volumique	1,66 g/cm³ DIN 51757
Solubilité	Eau: Non miscible
Coefficient de partage n-octanol/eau (Log Pow)	Aucune donnée disponible
Viscosité, cinématique	48192,771 mm²/s
Viscosité, dynamique	80 Pa·s HN-0333
Propriétés explosives	Le produit n'est pas explosif.
Limites d'explosivité	Aucune donnée disponible

### 9.2. Autres informations

Pas d'informations complémentaires disponibles

## RUBRIQUE 10: Stabilité et réactivité

Réactivité	Pas d'informations complémentaires disponibles
Stabilité chimique	Stable dans les conditions normales.
Possibilité de réactions dangereuses	Pas d'informations complémentaires disponibles.
Conditions à éviter	Rayons directs du soleil. Températures extrêmement élevées ou extrêmement basses.
Matières incompatibles	Acides forts. Bases fortes.
Produits de décomposition dangereux	fumée. Monoxyde de carbone. Dioxyde de carbone. Aucun produit de décomposition dangereux ne devrait être généré dans les conditions normales de stockage et d'emploi.
Temps de durcissement:	Pas d'informations complémentaires disponibles

## RUBRIQUE 11: Informations toxicologiques

### 11.1. Informations sur les effets toxicologiques

Toxicité aiguë (orale)	Non classé
Toxicité aiguë (cutanée)	Non classé
Toxicité aiguë (Inhalation)	Non classé

HIT-HY 270, A	
DL50 orale rat	> 2000 mg/kg
DL50 cutanée rat	> 2000 mg/kg
CL50 Inhalation - Rat (Vapeurs)	> 20 mg/l/4h

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

### 1,1'-(*p*-tolylimino) dipropane-2-ol (38668-48-3)

DL50 orale rat	25 mg/kg
DL50 cutanée rat	> 2000 mg/kg
ETA CA (oral)	25 mg/kg de poids corporel

### 4-tert-butylpyrocatechol (98-29-3)

DL50 orale rat	815 mg/kg de poids corporel (Rat)
DL50 orale	2820 mg/kg
DL50 cutanée rat	1331 mg/kg de poids corporel (Rat;Lethal; ECHA)
DL50 voie cutanée	630 mg/kg
ETA CA (oral)	815 mg/kg de poids corporel
ETA CA (Cutané)	630 mg/kg de poids corporel

### Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)

DL50 orale rat	> 5000 mg/kg (Rat; OCDE 401 : Toxicité orale aiguë; Étude de littérature; >=2000 mg/kg de poids corporel; Rat; Valeur expérimentale)
DL50 cutanée lapin	≥ 5000 mg/kg de poids corporel (Lapin; Valeur expérimentale)

### Triméthacrylate de 1,1,1-triméthylolpropane (3290-92-4)

DL50 orale rat	> 5000 mg/kg
DL50 cutanée rat	> 3000 mg/kg

### acide borique (10043-35-3)

DL50 orale rat	2660 mg/kg (Rat; OCDE 401 : Toxicité orale aiguë; Étude de littérature; >2600 mg/kg bodyweight; Rat; Valeur expérimentale)
DL50 orale	2660 mg/kg
DL50 cutanée lapin	> 2000 mg/kg Lapin; Valeur expérimentale; FIFRA (40 CFR)
ETA CA (oral)	2660 mg/kg de poids corporel

Corrosion cutanée/irritation cutanée

Non classé

Lésions oculaires graves/irritation oculaire

Provoque une sévère irritation des yeux.

Sensibilisation respiratoire ou cutanée

Peut provoquer une allergie cutanée.

Mutagénicité sur les cellules germinales

Non classé

Cancérogénicité

Non classé

Toxicité pour la reproduction

Peut nuire à la fertilité ou au fœtus.

Toxicité spécifique pour certains organes cibles (exposition unique)

Non classé

Non classé

Toxicité spécifique pour certains organes cibles (exposition répétée)

Danger par aspiration

Non classé

### HIT-HY 270, A

Viscosité, cinématique	48192,771 mm <sup>2</sup> /s
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Effets néfastes potentiels sur la santé humaine et symptômes possibles

Pas d'informations complémentaires disponibles.

Symptômes/effets après contact avec la peau

Peut provoquer une allergie cutanée.

Symptômes/effets après contact oculaire

Peut provoquer une irritation sévère.

# HIT-HY 270, A

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

### RUBRIQUE 12: Informations écologiques

#### 12.1. Toxicité

Dangers pour le milieu aquatique, à court terme  
(aiguë) Non classé

Dangers pour le milieu aquatique, à long terme  
(chronique) Non classé

1,1'-(p-tolylimino) dipropane-2-ol (38668-48-3)	
CL50 - Poisson [1]	≈ 17 mg/l
CL50 - Autres organismes aquatiques [1]	245 mg/l
CE50 - Crustacés [1]	28,8 mg/l
Coefficient de partage n-octanol/eau (Log Kow)	2,1
NOEC (aigu)	57,8 mg/l

4-tert-butylpyrocatechol (98-29-3)	
CL50 - Poisson [1]	0,12 mg/l (96 h, Danio rerio, Lethal, ECHA)
CEr50 algues	10,17 mg/l (OCDE 201 : Algues, essai d'inhibition de la croissance, 72 h, Pseudokirchneriella subcapitata, Système statique, Eau douce (non salée), Valeur expérimentale, GLP)
Coefficient de partage n-octanol/eau (Log Pow)	1,98 (Valeur expérimentale, OCDE 107 : Coefficient de partage (n-octanol/eau) : méthode par agitation en flacon, 25 °C)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,37 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale, GLP)

Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)	
CL50 - Poisson [1]	493 mg/l (48 h; Leuciscus idus; GLP)
CEr50 algues	> 143 mg/l (48 h; Daphnia magna; GLP)
CEr50 algues	97,2 mg/l (OCDE 201 : Algues, essai d'inhibition de la croissance, 72 h, Pseudokirchneriella subcapitata, Système statique, Eau douce (non salée), Valeur expérimentale, GLP)
BCF - Poisson [1]	≤ 100
BCF - Poisson [2]	3,2 Relation quantitative structure-activité (QSAR)
Coefficient de partage n-octanol/eau (Log Pow)	0,97 (méthode OCDE 102)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,9 (log Koc, Valeur calculée)
Seuil toxique - Algues [1]	> 97,2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Seuil toxique - Algues [2]	> 97,2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)

Triméthacrylate de 1,1,1-triméthylolpropane (3290-92-4)	
CL50 - Poisson [1]	2 mg/l
CEr50 algues	3,88 mg/l
NOEC chronique poisson	0,138 mg/l
NOEC chronique crustacé	0,177 mg/l
BCF - Poisson [2]	366 l/kg
Coefficient de partage n-octanol/eau (Log Kow)	4,39
Coefficient de partage n-octanol/eau (Log Pow)	3,53

acide borique (10043-35-3)	
CL50 - Poisson [1]	447 mg/l
CL50 - Poisson [2]	79 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Eau dure)
CE50 - Crustacés [1]	658 – 875 mg/l (48 h; Daphnia magna)
CE50 - Crustacés [2]	19,7 mg/l (336 h; Daphnia magna)
CEr50 algues	290 mg/l
NOEC chronique poisson	2,1 mg/l

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<b>acide borique (10043-35-3)</b>	
BCF - Poisson [2]	< 0,1 (60 days; Oncorhynchus tshawytscha; Poids frais)
Coefficient de partage n-octanol/eau (Log Pow)	-1,09 (Valeur expérimentale; Méthode A.8 de l'UE; 22 °C)

### 12.2. Persistance et dégradabilité

<b>HIT-HY 270, A</b>	
Persistance et dégradabilité	Non établi.
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Persistance et dégradabilité	Difficilement biodégradable dans l'eau.
DThO	2,4 g O <sub>2</sub> /g substance
<b>Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)</b>	
Persistance et dégradabilité	Facilement biodégradable dans l'eau.
<b>Quarz (14808-60-7)</b>	
Persistance et dégradabilité	Biodégradabilité: sans objet.
Demande chimique en oxygène (DCO)	Sans objet (inorganique)
DThO	Sans objet (inorganique)

### 12.3. Potentiel de bioaccumulation

<b>HIT-HY 270, A</b>	
Potentiel de bioaccumulation	Non établi.
<b>1,1'-(p-tolylimino) dipropane-2-ol (38668-48-3)</b>	
Coefficient de partage n-octanol/eau (Log Kow)	2,1
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Potentiel de bioaccumulation	Faible potentiel de bioaccumulation (Log Kow < 4).
Coefficient de partage n-octanol/eau (Log Pow)	1,98 (Valeur expérimentale, OCDE 107 : Coefficient de partage (n-octanol/eau) : méthode par agitation en flacon, 25 °C)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,37 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale, GLP)
<b>Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)</b>	
Potentiel de bioaccumulation	Faible potentiel de bioaccumulation (BCF < 500).
BCF - Poisson [1]	≤ 100
BCF - Poisson [2]	3,2 Relation quantitative structure-activité (QSAR)
Coefficient de partage n-octanol/eau (Log Pow)	0,97 (méthode OCDE 102)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,9 (log Koc, Valeur calculée)
<b>Triméthacrylate de 1,1,1-triméthylolpropane (3290-92-4)</b>	
BCF - Poisson [2]	366 l/kg
Coefficient de partage n-octanol/eau (Log Pow)	3,53
Coefficient de partage n-octanol/eau (Log Kow)	4,39
<b>Quarz (14808-60-7)</b>	
Potentiel de bioaccumulation	Aucun renseignement disponible sur la bioaccumulation.
<b>acide borique (10043-35-3)</b>	
Potentiel de bioaccumulation	Faible potentiel de bioaccumulation (BCF < 500).
BCF - Poisson [2]	< 0,1 (60 days; Oncorhynchus tshawytscha; Poids frais)
Coefficient de partage n-octanol/eau (Log Pow)	-1,09 (Valeur expérimentale; Méthode A.8 de l'UE; 22 °C)

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## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

### 12.4. Mobilité dans le sol

#### 1,1'-(*p*-tolylimino) dipropane-2-ol (38668-48-3)

Coefficient de partage n-octanol/eau (Log Kow)	2,1
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#### 4-tert-butylpyrocatechol (98-29-3)

Tension superficielle	Aucun renseignement disponible (essai non réalisé)
Ecologie - sol	Très mobile dans le sol.
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,37 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale, GLP)
Coefficient de partage n-octanol/eau (Log Pow)	1,98 (Valeur expérimentale, OCDE 107 : Coefficient de partage (n-octanol/eau) : méthode par agitation en flacon, 25 °C)

#### Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)

Ecologie - sol	Très mobile dans le sol.
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	1,9 (log Koc, Valeur calculée)
Coefficient de partage n-octanol/eau (Log Pow)	0,97 (méthode OCDE 102)

#### Triméthacrylate de 1,1,1-triméthylolpropane (3290-92-4)

Coefficient de partage n-octanol/eau (Log Pow)	3,53
Coefficient de partage n-octanol/eau (Log Kow)	4,39

#### Quarz (14808-60-7)

Tension superficielle	Aucun renseignement disponible dans la littérature
Ecologie - sol	Faible potentiel de mobilité dans le sol.

#### acide borique (10043-35-3)

Ecologie - sol	Aucune donnée (expérimentale) disponible sur la mobilité de la substance. Peut être nocif pour croissance des plantes/floraison/fruits.
Coefficient de partage n-octanol/eau (Log Pow)	-1,09 (Valeur expérimentale; Méthode A.8 de l'UE; 22 °C)

### 12.5. Autres effets néfastes

Ozone	Non classé
Autres informations	Éviter le rejet dans l'environnement.

## RUBRIQUE 13: Considérations relatives à l'élimination

### 13.1. Méthodes d'élimination

Législation régionale (déchets)	Elimination à effectuer conformément aux prescriptions légales.
Méthodes de traitement des déchets	Eliminer le contenu/récipient conformément aux consignes de tri du collecteur agréé.
Recommandations pour le traitement du produit/emballage	Après durcissement, le produit peut être éliminé avec les ordures ménagères. Emballages pleins / à moitié vides: déchets spéciaux - les apporter à un centre de collecte des matières dangereuses conformément aux dispositions administratives. Emballages contaminés par le produit : Eliminer conformément aux règlements de sécurité locaux/nationaux en vigueur.
Indications complémentaires	Nettoyer les fuites ou pertes, même mineures si possible sans prendre de risque inutile.
Ecologie - déchets	Éviter le rejet dans l'environnement.

## RUBRIQUE 14: Informations relatives au transport

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conformément à la Loi sur les produits dangereux (11 février 2015)

En conformité avec: ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. Numéro ONU</b>			
Non réglementé	Non réglementé	Non réglementé	Non réglementé
<b>14.2. Désignation officielle de transport de l'ONU</b>			
Non réglementé	Non réglementé	Non réglementé	Non réglementé
<b>14.3. Classe(s) de danger pour le transport</b>			
Non réglementé	Non réglementé	Non réglementé	Non réglementé
<b>14.4. Groupe d'emballage</b>			
Non réglementé	Non réglementé	Non réglementé	Non réglementé
<b>14.5. Dangers pour l'environnement</b>			
Non réglementé	Non réglementé	Non réglementé	Non réglementé
Pas d'informations supplémentaires disponibles			

### 14.6. Précautions particulières à prendre par l'utilisateur

#### Transport par voie terrestre

Non réglementé

#### Transport maritime

Non réglementé

#### Transport aérien

Non réglementé

#### Transport ferroviaire

Non réglementé

### 14.7. Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC

Non applicable

## RUBRIQUE 15: Informations relatives à la réglementation

### 15.1. Directives nationales

<b>HIT-HY 270, A</b>	Tous les composants de ce produit sont enregistrés, ou exempts d'enregistrement, dans la Liste intérieure des substances (LIS) / Liste extérieure des substances (LES) du Canada
<b>1,1'-(<i>p</i>-tolylimino) dipropane-2-ol (38668-48-3)</b>	
Listé dans la LIS canadienne (Liste Intérieure des Substances)	
<b>4-tert-butylpyrocatechol (98-29-3)</b>	
Listé dans la LIS canadienne (Liste Intérieure des Substances)	
<b>Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)</b>	
Listé dans la LIS canadienne (Liste Intérieure des Substances)	
<b>Quarz (14808-60-7)</b>	
Listé dans la LIS canadienne (Liste Intérieure des Substances)	

### 15.2. Réglementations internationales

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conformément à la Loi sur les produits dangereux (11 février 2015)

<b>1,1'-(p-tolylimino) dipropane-2-ol (38668-48-3)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>Biphénol-A-diéthoxy-méthacrylate (24448-20-2)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>4-tert-butylpyrocatechol (98-29-3)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>Acide 2-propénoate, 2-méthyl-, monoester avec 1,2-propanediol (27813-02-1)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>Tricyclodecane dimethanol dimethacrylate (43048-08-4)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>Triméthacrylate de 1,1,1-triméthylolpropane (3290-92-4)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>Quarz (14808-60-7)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis
<b>acide borique (10043-35-3)</b>
Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis

## RUBRIQUE 16: Autres informations

Date d'émission 01-21-2022  
Date de révision 01-21-2022  
Remplace la fiche 12-04-2018

Indications de changement:

Rubrique	Élément modifié	Modification	Remarques
2.1	Classification (GHS CA)	Enlevé	
2.2	Mentions de danger (GHS CA)	Enlevé	
3.2	Composition/informations sur les composants	Modifié	

Autres informations Aucun(e).

Textes complet des phrases H:

H300	Mortel en cas d'ingestion.
H302	Nocif en cas d'ingestion.
H312	Nocif par contact cutané.
H314	Provoque des brûlures de la peau et des lésions oculaires graves.
H315	Provoque une irritation cutanée.
H317	Peut provoquer une allergie cutanée.
H319	Provoque une sévère irritation des yeux.
H350	Peut provoquer le cancer.
H360	Peut nuire à la fertilité ou au fœtus.

Abréviations et acronymes:

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conformément à la Loi sur les produits dangereux (11 février 2015)

ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ETA	Estimation de la toxicité aiguë
FBC	Facteur de bioconcentration
CLP	Règlement relatif à la classification, à l'étiquetage et à l'emballage; règlement (CE) n° 1272/2008
DMEL	Dose dérivée avec effet minimum
DNEL	Dose dérivée sans effet
CE50	Concentration médiane effective
CIRC	Centre international de recherche sur le cancer
IATA	Association internationale du transport aérien
IMDG	Code maritime international des marchandises dangereuses
CL50	Concentration létale pour 50 % de la population testée (concentration létale médiane)
LD50	Dose létale médiane pour 50 % de la population testée (dose létale médiane)
LOAEL	Dose minimale avec effet nocif observé
NOAEC	Concentration sans effet nocif observé
NOAEL	Dose sans effet nocif observé
NOEC	Concentration sans effet observé
OCDE	Organisation de coopération et de développement économiques
PBT	Persistant, bioaccumulable et toxique
PNEC	Concentration(s) prédictive(s) sans effet
REACH	Enregistrement, évaluation, autorisation et restriction des substances chimiques. Règlement (EU) REACH No 1907/2006
RID	Règlement International concernant le transport de marchandises dangereuses par chemin de fer
FDS	Fiche de Données de Sécurité
vPvB	Très persistant et très bioaccumulable

SDS\_CA\_Hilti

Ces informations sont basées sur nos connaissances actuelles et décrivent le produit pour les seuls besoins de la santé, de la sécurité et de l'environnement. Elles ne devraient donc pas être interprétées comme garantissant une quelconque propriété spécifique du produit.

# HIT-HY 270, B

## Fiche de Données de Sécurité

conformément à la Loi sur les produits dangereux (11 février 2015)

Date d'émission: 01/21/2022

Date de révision: 01/21/2022

Remplace la fiche: 12/04/2018

Version: 2.1

## RUBRIQUE 1: Identification

### 1.1. Identificateur de produit

Forme du produit	Mélange
Nom du produit	HIT-HY 270, B
Code du produit	BU Anchor

### 1.2. Utilisation recommandée et limitations d'utilisation

Utilisation recommandée	Mortier composite pour fixateurs dans le domaine de la construction
Restrictions d'emploi	Réserve à un usage professionnel

### 1.3. Fournisseur

Fournisseur	Service établissant la fiche technique
Hilti (Canada) Corp.	Hilti Entwicklungsgesellschaft mbH
2360 Meadowpine Boulevard	Hiltistraße 6
L5N 6S2 Mississauga, Ontario - Canada	86916 Kaufering - Deutschland
T +1905 8139200	T +49 8191 906876
1-800-363-4458 toll free - F +1 905 813 9009	<a href="mailto:anchor.hse@hilti.com">anchor.hse@hilti.com</a>

### 1.4. Numéro d'appel d'urgence

Numéro d'urgence	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries)
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## RUBRIQUE 2: Identification des dangers

### 2.1. Classification de la substance ou du mélange

#### Classification (GHS CA)

Sensibilisation cutanée, catégorie 1	H317	Peut provoquer une allergie cutanée.
Texte intégral des mentions H : voir rubrique 16		

### 2.2. Éléments d'étiquetage GHS, y compris conseils de prudence

#### Etiquetage GHS CA

Pictogrammes de danger (GHS CA)



Attention

Mention d'avertissement (GHS CA)

Mentions de danger (GHS CA)

Conseils de prudence (GHS CA)

H317 - Peut provoquer une allergie cutanée.

P280 - Porter un équipement de protection des yeux, des vêtements de protection, des gants de protection.

P262 - Éviter tout contact avec les yeux, la peau ou les vêtements.

P305+P351+P338 - EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P333+P313 - En cas d'irritation ou d'éruption cutanée: consulter un médecin.

P337+P313 - Si l'irritation oculaire persiste: consulter un médecin.

P302+P352 - EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau.

### 2.3. Autres dangers

Pas d'informations complémentaires disponibles

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### 2.4. Toxicité aiguë inconnue (GHS CA)

Aucune donnée disponible

## RUBRIQUE 3: Composition/informations sur les composants

### 3.1. Substances

Non applicable

### 3.2. Mélanges

Nom	Nom chimique / Synonymes	Identificateur de produit	%	Classification (GHS CA)
Quarz	quartz (SiO <sub>2</sub> )	(N° CAS) 14808-60-7	40 – 60	Carc. 1A, H350
peroxyde de dibenzoyle	peroxyde de dibenzoyle; peroxyde de benzoyle	(N° CAS) 94-36-0	5 – 10	Org. Perox. B, H241 Eye Irrit. 2A, H319 Skin Sens. 1, H317

Texte complet des classes de danger et des phrases H : voir rubrique 16

## RUBRIQUE 4: Premiers secours

### 4.1. Description des premiers secours

Premiers soins après inhalation

Transporter la personne à l'extérieur et la maintenir dans une position où elle peut confortablement respirer. Permettre au sujet de respirer de l'air frais. Mettre la victime au repos.

Premiers soins après contact avec la peau

Laver les vêtements contaminés avant réutilisation. Laver abondamment à l'eau/.... En cas d'irritation ou d'éruption cutanée: Consulter un médecin.

Premiers soins après contact oculaire

Rincer immédiatement et abondamment à l'eau. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer. Consulter un médecin si la douleur ou la rougeur persistent.

Premiers soins après ingestion

Rincer la bouche. Consulter un médecin. Ne pas faire vomir. Consulter d'urgence un médecin.

Premiers soins général

Enlever immédiatement tous les vêtements contaminés. Ne jamais administrer quelque chose par la bouche à une personne inconsciente. En cas de malaise consulter un médecin (si possible lui montrer l'étiquette).

### 4.2. Principaux symptômes et effets, aigus et différés

Symptômes/effets après contact avec la peau

Peut provoquer une allergie cutanée.

Symptômes/effets après contact oculaire

Peut provoquer une irritation sévère.

Effets néfastes potentiels sur la santé humaine et symptômes possibles

Pas d'informations complémentaires disponibles.

### 4.3. Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires

Pas d'informations complémentaires disponibles

## RUBRIQUE 5: Mesures de lutte contre l'incendie

### 5.1. Moyens d'extinction appropriés

Moyens d'extinction appropriés

Eau pulvérisée. Dioxyde de carbone. Poudre sèche. Mousse. Sable.

### 5.2. Moyens d'extinction inappropriés

Agents d'extinction non appropriés

Ne pas utiliser un fort courant d'eau.

### 5.3. Dangers spécifiques dus au produit dangereux

Produits de décomposition dangereux en cas d'incendie

La décomposition thermique génère : Dioxyde de carbone. Monoxyde de carbone.

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## Fiche de Données de Sécurité

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### 5.4. Équipements de protection spéciaux et précautions pour les pompiers

Instructions de lutte contre l'incendie

Refroidir les conteneurs exposés par pulvérisation ou brouillard d'eau. Soyez prudent lors du combat de tout incendie de produits chimiques. Eviter que les eaux usées de lutte contre l'incendie contaminent l'environnement.

Protection en cas d'incendie

Appareil de protection respiratoire autonome isolant. Ne pas pénétrer dans la zone de feu sans équipement de protection, y compris une protection respiratoire.

## RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

### 6.1. Précautions individuelles, équipement de protection et procédures d'urgence

Mesures générales

Risque de glissade sur la matière renversée.

### 6.2. Méthodes et matériaux de confinement et de nettoyage

Pour la rétention

Recueillir le produit répandu.

Procédés de nettoyage

Ce produit et son récipient doivent être éliminés de manière sûre, conformément à la législation locale. Ramasser mécaniquement le produit. Stocker à l'écart des autres matières.

Autres informations

Eliminer les matières ou résidus solides dans un centre autorisé.

### 6.3. Référence aux autres rubriques

Pour plus d'informations, se reporter à la rubrique 8 : "Contrôle de l'exposition-protection individuelle"

## RUBRIQUE 7: Manipulation et stockage

### 7.1. Précautions à prendre pour une manipulation sans danger

Précautions à prendre pour une manipulation sans danger

Porter un équipement de protection individuel. Eviter le contact avec la peau et les yeux. Se laver les mains et toute autre zone exposée avec un savon doux et de l'eau, avant de manger, de boire, de fumer, et avant de quitter le travail. Assurer une bonne ventilation de la zone de travail afin d'éviter la formation de vapeurs.

Mesures d'hygiène

Ne pas manger, boire ou fumer en manipulant ce produit. Se laver les mains après toute manipulation. Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail. Laver les vêtements contaminés avant réutilisation.

### 7.2. Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités

Conditions de stockage

Tenir au frais. Protéger du rayonnement solaire.

Produits incompatibles

Bases fortes. Acides forts.

Matières incompatibles

Sources d'inflammation. Rayons directs du soleil.

Chaleur et sources d'ignition

Eviter la chaleur et le soleil direct.

Température de stockage

5 – 25 °C

## RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

### 8.1. Paramètres de contrôle

Indications complémentaires

Le produit est de consistance pâteuse. Le taux limite d'exposition aux poussières respirables ne s'applique pas à ce produit.

### 8.2. Contrôles techniques appropriés

Contrôles techniques appropriés

Assurer une ventilation appropriée.

Contrôle de l'exposition de l'environnement

Éviter le rejet dans l'environnement.

### 8.3. Mesures de protection individuelle/Équipement de protection individuelle

#### Equipement de protection individuelle:

Lunettes de sécurité. Gants. Vêtements de protection. Eviter toute exposition inutile.

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### Protection des mains:

Porter des gants de protection. Le temps de perméation ne correspond pas au temps d'usure maximum ! Généralement, il doit être réduit. Tout contact avec des mélanges de substances ou différentes substances peut réduire la durée effective de la fonction de protection.

Type	Matériau	Perméation	Epaisseur (mm)	Pénétration
Gants jetables	Caoutchouc nitrile (NBR)	6 (> 480 minutes)	0,12	

### Protection oculaire:

Utiliser des lunettes de sécurité qui protègent des éclaboussures

Type	Champ d'application	Caractéristiques
Lunettes de sécurité	Gouttelettes	lumineux

### Protection de la peau et du corps:

Porter un vêtement de protection approprié

### Symbole(s) de l'équipement de protection individuelle:



### Autres informations:

Ne pas manger, ne pas boire et ne pas fumer pendant l'utilisation.

## RUBRIQUE 9: Propriétés physiques et chimiques

### 9.1. Informations sur les propriétés physiques et chimiques essentielles

État physique	Solide
Apparence	Pâte thixotrope.
Couleur	blanc
Odeur	caractéristique
Seuil olfactif	non déterminé
pH	≈ 6
Vitesse d'évaporation relative (l'acétate butylique=1)	Aucune donnée disponible
Vitesse d'évaporation relative (éther=1)	Aucune donnée disponible
Point de fusion	Aucune donnée disponible
Point de congélation	Aucune donnée disponible
Point d'ébullition	Aucune donnée disponible
Point d'éclair	Aucune donnée disponible
Température d'auto-inflammation	Non auto-inflammable
Température de décomposition	Aucune donnée disponible
Inflammabilité (solide, gaz)	Ininflammable.
Pression de vapeur	Aucune donnée disponible
Pression de vapeur à 50 °C	Aucune donnée disponible
Densité relative	Aucune donnée disponible
Masse volumique	1,7 g/cm³ DIN 51757
Solubilité	Eau: Non miscible
Coefficient de partage n-octanol/eau (Log Pow)	Aucune donnée disponible
Viscosité, cinématique	52941,176 mm²/s
Viscosité, dynamique	90 Pa·s HN-0333



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Propriétés explosives	Le produit n'est pas explosif.
Limites d'explosivité	Aucune donnée disponible

### 9.2. Autres informations

SADT	: 65 °C
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## RUBRIQUE 10: Stabilité et réactivité

Réactivité	Pas d'informations complémentaires disponibles
Stabilité chimique	Stable dans les conditions normales.
Possibilité de réactions dangereuses	Pas d'informations complémentaires disponibles.
Conditions à éviter	Rayons directs du soleil. Températures extrêmement élevées ou extrêmement basses.
Matières incompatibles	Acides forts. Bases fortes.
Produits de décomposition dangereux	fumée. Monoxyde de carbone. Dioxyde de carbone. Aucun produit de décomposition dangereux ne devrait être généré dans les conditions normales de stockage et d'emploi.
Temps de durcissement:	Pas d'informations complémentaires disponibles

## RUBRIQUE 11: Informations toxicologiques

### 11.1. Informations sur les effets toxicologiques

Toxicité aiguë (orale)	Non classé
Toxicité aiguë (cutanée)	Non classé
Toxicité aiguë (Inhalation)	Non classé
Corrosion cutanée/irritation cutanée	Non classé pH: ≈ 6
Lésions oculaires graves/irritation oculaire	Non classé pH: ≈ 6
Sensibilisation respiratoire ou cutanée	Peut provoquer une allergie cutanée.
Mutagénicité sur les cellules germinales	Non classé
Cancérogénicité	Non classé
Toxicité pour la reproduction	Non classé
Toxicité spécifique pour certains organes cibles (exposition unique)	Non classé Non classé
Toxicité spécifique pour certains organes cibles (exposition répétée)	Non classé
Danger par aspiration	Non classé

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Viscosité, cinématique	52941,176 mm²/s
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Effets néfastes potentiels sur la santé humaine et symptômes possibles	Pas d'informations complémentaires disponibles.
Symptômes/effets après contact avec la peau	Peut provoquer une allergie cutanée.
Symptômes/effets après contact oculaire	Peut provoquer une irritation sévère.

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### RUBRIQUE 12: Informations écologiques

#### 12.1. Toxicité

Dangers pour le milieu aquatique, à court terme (aiguë) Non classé

Dangers pour le milieu aquatique, à long terme (chronique) Non classé

<b>peroxyde de dibenzoyle (94-36-0)</b>	
CL50 - Poisson [2]	0,0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
CE50 - Crustacés [1]	0,11 mg/l (OCDE 202 : Daphnia sp., essai d'immobilisation immédiate, 48 h, Daphnia magna, Système statique, Eau douce (non salée), Valeur expérimentale, GLP)
CEr50 algues	0,0711 mg/l (OCDE 201 : Algues, essai d'inhibition de la croissance, 72 h, Pseudokirchneriella subcapitata, Système statique, Eau douce (non salée), Valeur expérimentale, GLP)
NOEC chronique poisson	0,001 mg/l
Coefficient de partage n-octanol/eau (Log Pow)	3,71 (QSAR; 3.2; Valeur expérimentale; OCDE 117 : Coefficient de partage (n-octanol/eau), méthode CLHP; 22 °C)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	3,8 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale)
NOEC (aigu)	0,0316 mg/l (96h; Oncorhynchus mykiss; ECHA)

#### 12.2. Persistance et dégradabilité

<b>HIT-HY 270, B</b>	
Persistante et dégradabilité	Non établi.
<b>Quarz (14808-60-7)</b>	
Persistante et dégradabilité	Biodégradabilité: sans objet.
Demande chimique en oxygène (DCO)	Sans objet (inorganique)
DThO	Sans objet (inorganique)
<b>peroxyde de dibenzoyle (94-36-0)</b>	
Persistante et dégradabilité	Facilement biodégradable dans l'eau. Non établi. Peut entraîner des effets néfastes à long terme pour l'environnement.

#### 12.3. Potentiel de bioaccumulation

<b>HIT-HY 270, B</b>	
Potentiel de bioaccumulation	Non établi.
<b>Quarz (14808-60-7)</b>	
Potentiel de bioaccumulation	Aucun renseignement disponible sur la bioaccumulation.
<b>peroxyde de dibenzoyle (94-36-0)</b>	
Potentiel de bioaccumulation	Faible potentiel de bioaccumulation (Log Kow < 4).
Coefficient de partage n-octanol/eau (Log Pow)	3,71 (QSAR; 3.2; Valeur expérimentale; OCDE 117 : Coefficient de partage (n-octanol/eau), méthode CLHP; 22 °C)
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	3,8 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale)

#### 12.4. Mobilité dans le sol

<b>Quarz (14808-60-7)</b>	
Tension superficielle	Aucun renseignement disponible dans la littérature
Ecologie - sol	Faible potentiel de mobilité dans le sol.
<b>peroxyde de dibenzoyle (94-36-0)</b>	
Tension superficielle	Aucun renseignement disponible (essai non réalisé)
Ecologie - sol	Faible potentiel de mobilité dans le sol.

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<b>peroxyde de dibenzoyle (94-36-0)</b>	
Coefficient d'adsorption normalisé du carbone organique (Log Koc)	3,8 (log Koc, OCDE 121 : Estimation du coefficient d'adsorption (Koc) sur le sol et les boues d'épuration par chromatographie en phase liquide à haute performance (CLHP), Valeur expérimentale)
Coefficient de partage n-octanol/eau (Log Pow)	3,71 (QSAR; 3.2; Valeur expérimentale; OCDE 117 : Coefficient de partage (n-octanol/eau), méthode CLHP; 22 °C)

### 12.5. Autres effets néfastes

Ozone	Non classé
Autres informations	Éviter le rejet dans l'environnement.

## RUBRIQUE 13: Considérations relatives à l'élimination

### 13.1. Méthodes d'élimination

Législation régionale (déchets)	Elimination à effectuer conformément aux prescriptions légales.
Méthodes de traitement des déchets	Eliminer le contenu/récipient conformément aux consignes de tri du collecteur agréé.
Recommandations pour le traitement du produit/emballage	Après durcissement, le produit peut être éliminé avec les ordures ménagères. Emballages pleins / à moitié vides: déchets spéciaux - les apporter à un centre de collecte des matières dangereuses conformément aux dispositions administratives. Emballages contaminés par le produit : Eliminer conformément aux règlements de sécurité locaux/nationaux en vigueur.
Indications complémentaires	Nettoyer les fuites ou pertes, même mineures si possible sans prendre de risque inutile.
Ecologie - déchets	Éviter le rejet dans l'environnement.

## RUBRIQUE 14: Informations relatives au transport

En conformité avec: ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. Numéro ONU</b>			
UN 3077	UN 3077	UN 3077	UN 3077
<b>14.2. Désignation officielle de transport de l'ONU</b>			
MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle)	MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle)	Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide)	MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle)
Description document de transport UN 3077 MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle), 9, III, (-)	UN 3077 MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle), 9, III, POLLUANT MARIN	UN 3077 Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide), 9, III	UN 3077 MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, SOLIDE, N.S.A. (peroxyde de dibenzoyle), 9, III
<b>14.3. Classe(s) de danger pour le transport</b>			
9	9	9	9

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ADR	IMDG	IATA	RID
<b>14.4. Groupe d'emballage</b>			
III	III	III	III
<b>14.5. Dangers pour l'environnement</b>			
Dangereux pour l'environnement: Oui	Dangereux pour l'environnement: Oui Polluant marin: Oui	Dangereux pour l'environnement: Oui	Dangereux pour l'environnement: Oui
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

### 14.6. Précautions particulières à prendre par l'utilisateur

#### Transport par voie terrestre

Code de classification (ADR)	M7
Dispositions spéciales (ADR)	274, 335, 375, 601
Quantités limitées (ADR)	5kg
Instructions d'emballage (ADR)	P002, IBC08, LP02, R001
Dispositions relatives à l'emballage en commun (ADR)	MP10
Catégorie de transport (ADR)	3
Panneaux oranges	

Code de restriction en tunnels (ADR)

-

#### Transport maritime

Dispositions spéciales (IMDG)	274, 335, 966, 967, 969
Quantités limitées (IMDG)	5 kg
Instructions d'emballage (IMDG)	LP02, P002
N° FS (Feu)	F-A
N° FS (Déversement)	S-F
Catégorie de chargement (IMDG)	A
Arrimage et manutention (Code IMDG)	SW23

#### Transport aérien

Instructions d'emballage avion passagers et cargo (IATA)	956
Quantité nette max. pour avion passagers et cargo (IATA)	400kg
Instructions d'emballage avion cargo seulement (IATA)	956
Dispositions spéciales (IATA)	A97, A158, A179, A197, A215

#### Transport ferroviaire

Dispositions spéciales (RID)	274, 335, 375, 601
Quantités limitées (RID)	5kg
Instructions d'emballage (RID)	P002, IBC08, LP02, R001

### 14.7. Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC

Non applicable

## RUBRIQUE 15: Informations relatives à la réglementation

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### 15.1. Directives nationales

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Indicateurs relatifs à la LIS et à la LES du Canada	Tous les composants de ce produit sont enregistrés, ou exempts d'enregistrement, dans la Liste intérieure des substances (LIS) / Liste extérieure des substances (LES) du Canada
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#### Quarz (14808-60-7)

Listé dans la LIS canadienne (Liste Intérieure des Substances)

#### peroxyde de dibenzoyle (94-36-0)

Listé dans la LIS canadienne (Liste Intérieure des Substances)

### 15.2. Réglementations internationales

#### Quarz (14808-60-7)

Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis

#### peroxyde de dibenzoyle (94-36-0)

Listé dans l'inventaire du TSCA (Toxic Substances Control Act) des Etats-Unis

## RUBRIQUE 16: Autres informations

Date d'émission 01-21-2022

Date de révision 01-21-2022

Remplace la fiche 12-04-2018

Autres informations Aucun(e).

Textes complet des phrases H:

H241	Peut s'enflammer ou exploser sous l'effet de la chaleur.
H317	Peut provoquer une allergie cutanée.
H319	Provoque une sévère irritation des yeux.
H350	Peut provoquer le cancer.

Abréviations et acronymes:

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ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ETA	Estimation de la toxicité aiguë
FBC	Facteur de bioconcentration
CLP	Règlement relatif à la classification, à l'étiquetage et à l'emballage; règlement (CE) n° 1272/2008
DMEL	Dose dérivée avec effet minimum
DNEL	Dose dérivée sans effet
CE50	Concentration médiane effective
CIRC	Centre international de recherche sur le cancer
IATA	Association internationale du transport aérien
IMDG	Code maritime international des marchandises dangereuses
CL50	Concentration létale pour 50 % de la population testée (concentration létale médiane)
LD50	Dose létale médiane pour 50 % de la population testée (dose létale médiane)
LOAEL	Dose minimale avec effet nocif observé
NOAEC	Concentration sans effet nocif observé
NOAEL	Dose sans effet nocif observé
NOEC	Concentration sans effet observé
OCDE	Organisation de coopération et de développement économiques
PBT	Persistant, bioaccumulable et toxique
PNEC	Concentration(s) prédictive(s) sans effet
REACH	Enregistrement, évaluation, autorisation et restriction des substances chimiques. Règlement (EU) REACH No 1907/2006
RID	Règlement International concernant le transport de marchandises dangereuses par chemin de fer
FDS	Fiche de Données de Sécurité
vPvB	Très persistant et très bioaccumulable

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Ces informations sont basées sur nos connaissances actuelles et décrivent le produit pour les seuls besoins de la santé, de la sécurité et de l'environnement. Elles ne devraient donc pas être interprétées comme garantissant une quelconque propriété spécifique du produit.