

HPD UNIQUE IDENTIFIER: 24097

CLASSIFICATION: 03 15 19 Cast-In Concrete Anchors

PRODUCT DESCRIPTION: The bolt anchor 1988 is a cast in place anchor that consists of a hexagonal bolt (no corrosion finish) with a steel pipe sleeve that is crimped on to the end of the bolt. The sleeve has an electro-plated corrosion finish (GV or Yellow Zinc) and is manufactured from a steel precision tubing. An optional plastic data clip is attached to the opening to clearly identify the system once cast into concrete.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold level	Residuals/Impurities	
☐ Nested Materials Method	☒ 100 ppm	☒ Considered	<i>All Substances Above the Threshold Indicated Are:</i>
☒ Basic Method	☐ 1,000 ppm	☐ Partially Considered	Characterized ☐ Yes Ex/SC ☒ Yes ☐ No
Threshold Disclosed Per	☐ Per GHS SDS	☐ Not Considered	% weight and role provided for all substances.
☐ Material	☐ Other	Explanation(s) provided for Residuals/Impurities?	Screened ☐ Yes Ex/SC ☒ Yes ☐ No
☒ Product		☒ Yes ☐ No	<i>All substances screened using Priority Hazard Lists with results disclosed.</i>
			Identified ☐ Yes Ex/SC ☒ Yes ☐ No
			<i>All substances disclosed by Name (Specific or Generic) and Identifier.</i>

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | **SUBSTANCE** | *RESIDUAL OR IMPURITY*

GREENSCREEN SCORE | HAZARD TYPE

DEMU BOLT ANCHOR 1988 [**STEEL** NoGS **CARBON** LT-UNK **ZINC** LT-P1 | AQU | END | MUL | PHY **MANGANESE** LT-P1 | END | MUL | REP **SILICON** LT-UNK **PHOSPHORUS** BM-2 | MAM | PHY **SULFUR** LT-UNK | SKI]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

HALFEN worked with the the HPDC Approved Preparer, ToxServices LLC, to screen all intentionally added ingredients in the product formulation to the level of 100 ppm (0.01%).

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH Standard Method V1.2 (Section 01350/CHPS) - Residential scenario

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1 and Option 2

Third Party Verified?	PREPARER: ToxServices LLC	SCREENING DATE: 2021-03-16
☐ Yes	VERIFIER:	PUBLISHED DATE: 2021-03-16
☒ No	VERIFICATION #:	EXPIRY DATE: 2024-03-16

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

DEMU BOLT ANCHOR 1988

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: HALFEN worked with the the HPDC Approved Preparer, ToxServices LLC, to screen all intentionally added ingredients and all residuals/impurities that are present in product formulation to the level of 100ppm (0.01%)

OTHER PRODUCT NOTES:

STEEL ID: 12597-69-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-03-16

?: 99.1100 - 99.8200 GS: NoGS RC: None NANO: No SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

CARBON ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-03-16

?: 0.1100 - 0.3400 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

ZINC ID: 7440-66-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-03-16

?: 0.0300 - 0.0300 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Corrosion inhibitor

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHY	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHY	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously
SUBSTANCE NOTES:		

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-03-16				
%: 0.0000 - 0.3300		GS: LT-P1		RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE		AGENCY AND LIST TITLES		WARNINGS		
END		TEDX - Potential Endocrine Disruptors		Potential Endocrine Disruptor		
MUL		German FEA - Substances Hazardous to Waters		Class 2 - Hazard to Waters		
REP		GHS - Japan		Toxic to reproduction - Category 1B [H360]		
SUBSTANCE NOTES:						

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-03-16		
%: 0.0000 - 0.0900	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found	No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES:				

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-03-16		
%: 0.0000 - 0.0200	GS: BM-2	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances		
PHY	EU - GHS (H-Statements)	H228 - Flammable solid		

SUBSTANCE NOTES:

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-03-16		
%: 0.0000 - 0.0200	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
SKI	EU - GHS (H-Statements)	H315 - Causes skin irritation		

SUBSTANCE NOTES:

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	CDPH Standard Method V1.2 (Section 01350/CHPS) - Residential scenario		
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2018-07-	EXPIRY DATE:	CERTIFIER OR LAB: N/A
APPLICABLE FACILITIES: No VOC Testing Performed	12		
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES:			

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

PLASTIC DATA CLIP	HPD URL: No HPD Available
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:	
An optional HDPE plastic data clip is attached to the opening to clearly identify the system once cast into concrete. The review of the HDPE plastic clip was not included under this HPD.	

Section 5: General Notes

HALFEN worked with the HPDC Approved Preparer, ToxServices LLC, to confirm that full formulation disclosure was properly obtained to the 100 ppm level, and that all residuals and impurities have been considered under the preparation of this HPD.

MANUFACTURER INFORMATION

MANUFACTURER: **HALFEN GmbH**
 ADDRESS: **Liebigstrasse 14**
Langenfeld Richrath 40764, Germany
 WEBSITE: **www.halfen.com**

CONTACT NAME: **Raimo Fuellsack-Koeditz**
 TITLE: **Innovation and Sustainability Officer**
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The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
BM-2 Benchmark 2 (use but search for safer substitutes)	
BM-1 Benchmark 1 (avoid - chemical of high concern)	
BM-U Benchmark Unspecified (due to insufficient data)	
LT-P1 List Translator Possible 1 (Possible Benchmark-1)	NoGS No GreenScreen.

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.