

# DX-Cartridge Clean-Tec

## Safety Data Sheet

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

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### SECTION 1: Identification

#### 1.1. Identification

Product form	Article
Trade name	DX-Cartridge Clean-Tec
Product code	BU Direct Fastening

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

Recommended use	CARTRIDGES FOR TOOLS, BLANK
Restrictions on use	For professional use only

#### 1.3. Supplier

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

The dismantling of the article is prohibited!, This article contains hazardous substances or preparations not intended to be released under normal or reasonably foreseeable conditions of use.

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

##### GHS-US classification

Explosives, Division 1.4	H204	Fire or projection hazard.
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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)

H204 - Fire or projection hazard.

Precautionary statements (GHS US)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P250 - Do not subject to shock, friction, grinding.  
P280 - Wear eye protection.  
P372 - Explosion risk in case of fire.  
P370+P380+P375 - In case of fire: Evacuate area. Fight fire remotely due to the risk of

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explosion.

P401 - Store in accordance with local regulations on explosives.

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

Other hazards which do not result in classification : This article contains hazardous substances or preparations not intended to be released under normal or reasonably foreseeable conditions of use. The dismantling of the article is prohibited!. Keep away from ignition sources (including static discharges).

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

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Comments

max. net explosives weight each cartridge in mg:

Caliber 6.8/11 (cal .27 short) white: 130; brown: 140; green: 160; yellow: 180; red: 230; titanium: 230; black: 260

Caliber 6.8/18 (cal .27 long) green: 190; yellow: 220; blue: 300; red: 330; black: 410

Within the cartridges the explosive ingredients (gun powder and priming composition) are hermetically separated from the environment. They will be only opened with effort and under destruction of the article.

Propellant powder: glycerol trinitrate containing nitrocellulose powder

Mass per cartridge: essentially dependent on the required power (100-400 mg)

Priming composition: SINTOX (initiating explosive) Mass per cartridge: 20,9 mg in the mean.

Name	Product identifier	%	GHS-US classification
cellulose nitrate	(CAS-No.) 9004-70-0	5 - 17	Expl. 1.1, H201
glycerol trinitrate	(CAS-No.) 55-63-0	2 - 7	Unst. Expl., H200 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 2, H373 Aquatic Chronic 2, H411
diphenylamine	(CAS-No.) 122-39-4	0.1 - 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
copper	(CAS-No.) 7440-50-8	0 - 1	Aquatic Acute 1, H400 Aquatic Chronic 3, H412
zinc	(CAS-No.) 7440-66-6	0 - 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tetrazene	(CAS-No.) 109-27-3	0 - 1	Unst. Expl., H200 Eye Irrit. 2A, H319

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

In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation

Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

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First-aid measures after ingestion

Rinse mouth. 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. No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released.

The dismantling of the article is prohibited.

Symptoms/effects

Not expected to present a significant hazard under anticipated conditions of normal use.

### 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

Dry powder. Water spray.

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

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Nitrous gasses.

### 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

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

Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures

Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment

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

Methods for cleaning up

Pick up loose cartridges only by hand.

Exposed ingredients must be swept up carefully and phlegmatized in a water container, labelled according to the regulations, wipe down with water the contaminated area. Store away from other materials.

### 6.4. Reference to other sections

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

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed	Hazardous waste due to potential risk of explosion.
Precautions for safe handling	Do not subject to grinding, shock, friction. Take precautionary measures against static discharge. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Store in a dry place.
Incompatible products	Strong bases. Strong acids.
Storage temperature	5 – 25 °C
Information on mixed storage	Keep away from : Ignition sources. Do not store with: Store according to local legislation.
Storage area	Store away from heat.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

DX-Cartridge Clean-Tec	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nitroglycerin (NG)
ACGIH OEL TWA	0.2 mg/m <sup>3</sup> (Fume) 1 mg/m <sup>3</sup> (Dusts and mists)
ACGIH OEL TWA [ppm]	0.05 ppm
Remark (ACGIH)	TLV® Basis: Vasodilation. Notations: Skin
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Nitroglycerin
OSHA PEL TWA [1]	0.1 mg/m <sup>3</sup> (Fume (as Cu)) 1 mg/m <sup>3</sup> (Dusts and mists (as Cu))
OSHA PEL C	2 mg/m <sup>3</sup>
OSHA PEL C [ppm]	0.2 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
glycerol trinitrate (55-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nitroglycerin (NG)
ACGIH OEL TWA [ppm]	0.05 ppm
Remark (ACGIH)	Vasodilation
USA - OSHA - Occupational Exposure Limits	
Local name	Nitroglycerin
OSHA PEL C	2 mg/m <sup>3</sup>
OSHA PEL C [ppm]	0.2 ppm
diphenylamine (122-39-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Diphenylamine
ACGIH OEL TWA	10 mg/m <sup>3</sup>
Remark (ACGIH)	Liver & kidney dam; hematologic eff
cellulose nitrate (9004-70-0)	
No additional information available	

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<b>copper (7440-50-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	0.2 mg/m <sup>3</sup>
<b>zinc (7440-66-6)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2 mg/m <sup>3</sup>
<b>tetrazene (109-27-3)</b>	
No additional information available	

### 8.2. Appropriate engineering controls

No additional information available

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

#### Personal protective equipment:

When using cartridge operated tools, sufficient ear protection must be worn.

#### Eye protection:

Safety glasses

#### Skin and body protection:

When using cartridge operated tools, sufficient ear protection must be worn.

#### 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
Colour	According to product specification
Odour	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Sweet odour Pleasant odour Floral odour Odourless
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available

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Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	Fire or projection hazard.
Oxidising properties	No data available

### 9.2. Other information

Additional information	Not applicable Article
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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

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides. Metal oxides. Thermal decomposition can lead to the release of irritating gases and vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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

glycerol trinitrate (55-63-0)	
LD50 oral rat	685 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 9560 mg/kg bodyweight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Dermal)

diphenylamine (122-39-4)	
LD50 oral rat	> 800 mg/kg bodyweight (Rat, Male, Experimental value, Oral)

zinc (7440-66-6)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

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Reproductive toxicity Not classified

STOT-single exposure Not classified

STOT-repeated exposure Not classified

<b>glycerol trinitrate (55-63-0)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
<b>diphenylamine (122-39-4)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified

Viscosity, kinematic

Potential adverse human health effects and symptoms No additional information available. No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.

Symptoms/effects Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.

<b>glycerol trinitrate (55-63-0)</b>	
LC50 - Fish [1]	1.9 mg/l (ASTM E729-80, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, Lethal)
NOEC chronic fish	0.03 mg/l
<b>diphenylamine (122-39-4)</b>	
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	2.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Experimental value, GLP)
NOEC chronic algae	0.0273 mg/l
<b>copper (7440-50-8)</b>	
LC50 - Fish [1]	200 µg/l (96 h, Salmo gairdneri, Flow-through system, Fresh water, Weight of evidence, Lethal)
EC50 - Crustacea [1]	109 – 798 µg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Weight of evidence, Locomotor effect)
<b>zinc (7440-66-6)</b>	
LC50 - Fish [1]	0.169 mg/l (Other, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, Zinc ion)
EC50 - Crustacea [1]	416 µg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Ceriodaphnia dubia, Static system, Fresh water, Experimental value)
ErC50 algae	0.15 mg/l
<b>tetrazene (109-27-3)</b>	
EC50 - Crustacea [1]	0.14 mg/l

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### 12.2. Persistence and degradability

DX-Cartridge Clean-Tec	
Persistence and degradability	Not established.
glycerol trinitrate (55-63-0)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	53.6 g O <sub>2</sub> /g substance
diphenylamine (122-39-4)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	2.39 g O <sub>2</sub> /g substance
copper (7440-50-8)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
zinc (7440-66-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

DX-Cartridge Clean-Tec	
Bioaccumulative potential	Not established.
glycerol trinitrate (55-63-0)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
diphenylamine (122-39-4)	
BCF - Fish [1]	51 – 253 (Cyprinus carpio, Literature study, Test duration: 8 weeks)
Partition coefficient n-octanol/water (Log Pow)	3.71 – 3.84 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20.2 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
copper (7440-50-8)	
Bioaccumulative potential	Bioaccumulation: not applicable.
zinc (7440-66-6)	
BCF - Fish [1]	0.002 (40 day(s), Danio rerio, Semi-static system, Fresh water, Read-across)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

glycerol trinitrate (55-63-0)	
Ecology - soil	Low potential for adsorption in soil.
diphenylamine (122-39-4)	
Surface tension	71.8 mN/m (20 °C, 90 %, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Koc)	2.818 – 2.917 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.
copper (7440-50-8)	
Ecology - soil	Adsorbs into the soil.
zinc (7440-66-6)	
Surface tension	No data available in the literature
Ecology - soil	Adsorbs into the soil.



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### 12.5. Other adverse effects

Other information

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations

Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling.

Additional information

Cartridge strips with unused cartridges: Hazardous waste due to risk of explosion. European waste catalogue: 16 04 01\* - waste ammunition. If possible use up the cartridges or store them for your next project.

If not possible to use up the cartridges - The strip is mixed municipal waste and the cartridge itself is "waste ammunition" and has to be disposed of by an authorized/certified company.





If cartridges are used up: European waste catalogue: 20 03 01 - mixed municipal waste. The product (cartridges and strip) can be disposed of as household or factory waste.

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 or ID number</b>			
UN 0323	UN 0323	UN 0323	UN 0323
<b>14.2. UN proper shipping name</b>			
CARTRIDGES, POWER DEVICE	CARTRIDGES, POWER DEVICE	Cartridges, power device	CARTRIDGES, POWER DEVICE
<b>Transport document description</b>			
UN 0323 CARTRIDGES, POWER DEVICE, 1.4S, (E)	UN 0323 CARTRIDGES, POWER DEVICE, 1.4S	UN 0323 Cartridges, power device, 1.4S	UN 0323 CARTRIDGES, POWER DEVICE, 1.4S
<b>14.3. Transport hazard class(es)</b>			
1.4S	1.4S	1.4S	1.4S
			
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)

1.4S

Special provisions (ADR)

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Limited quantities (ADR)	0
Packing instructions (ADR)	P134, LP102
Mixed packing provisions (ADR)	MP23
Transport category (ADR)	4
Tunnel restriction code (ADR)	E

### Transport by sea

Special provisions (IMDG)	347
Limited quantities (IMDG)	0
Packing instructions (IMDG)	P134, LP102
EmS-No. (Fire)	F-B
EmS-No. (Spillage)	S-X
Stowage category (IMDG)	01
Stowage and handling (IMDG)	SW1
MFAG-No	114

### Air transport

PCA packing instructions (IATA)	134
PCA max net quantity (IATA)	25kg
CAO packing instructions (IATA)	134
Special provisions (IATA)	A165

### Rail transport

Special provisions (RID)	347
Limited quantities (RID)	0
Packing instructions (RID)	P134, LP102

## 14.7. Maritime transport in bulk according to IMO instruments

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

Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S

zinc	CAS-No. 7440-66-6	0 - 1%
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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.

glycerol trinitrate	CAS-No. 55-63-0	2 - 7%
diphenylamine	CAS-No. 122-39-4	0.1 - 1%
copper	CAS-No. 7440-50-8	0 - 1%
zinc	CAS-No. 7440-66-6	0 - 1%

#### glycerol trinitrate (55-63-0)

CERCLA RQ	10 lb
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#### cellulose nitrate (9004-70-0)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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#### copper (7440-50-8)

CERCLA RQ	5000 lb
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#### zinc (7440-66-6)

CERCLA RQ	1000 lb
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### 15.2. International regulations

#### CANADA

<b>glycerol trinitrate (55-63-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>diphenylamine (122-39-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>cellulose nitrate (9004-70-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>copper (7440-50-8)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>zinc (7440-66-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>tetrazene (109-27-3)</b>
Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

<b>DX-Cartridge Clean-Tec</b>
National regulations CL UN3077

### 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

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Full text of H-statements:

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H204	Fire or projection hazard.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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

Indication of changes:

Section	Changed item	Change	Comments
3	Composition/information on ingredients	Added	

SDS\_US\_Hilti

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