

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)
Issue date: 08.01.2026

Revision date: 08.01.2026

Supersedes:

Version: 4.1

SECTION 1: Identification

1.1. Product identifier

Name	DX-Cartridge
Product code	BU Direct Fastening
Generic name	DX-Cartridge UN0323
Product form	Article

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

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

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore
Singapur 117372
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100 Schaan Liechtenstein 9494
T +423 234 2111
product.compliance-direct.fastening@hilti.com

1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
------------------	--

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Physical hazards	Explosives, Division 1.4
------------------	--------------------------

2.2. GHS label elements, including precautionary statements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

Warning

Hazard statements (GHS SG)

H204 : Fire or projection hazard

Precautionary statements

Prevention

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.

Response

P370+P380+P375 : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

P372 : Explosion risk.

Storage

P401 : Store in accordance with in accordance with local regulations on explosives.

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification

Category of the pyrotechnic article: other pyrotechnic articles Cat. P1 (BAM EC-Type-Examination Certificate No. 0589.PYR.3800/12 or 0589.PYR.3804/12 respectively)
 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)

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
 Caliber 6.3/10 (cal. 25) green 120; yellow: 190; red: 230; black: 250
 Caliber 5.5/16 (cal .22) grey: 105; brown: 120; green: 175; yellow: 210; red: 270.
 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).
 Exposed propellant powder outside a cartridge is harmful if swallowed and highly flammable; without tamping no explosion risk.
 Packed safety cartridges don't represent a significant risk.
 In case of reaction no dangerous fragments or projectiles will be formed.
 Mechanical or thermal attempts to expose the primer composition lead to an immediate reaction of the dangerous ingredients.

Name	Synonyms	Concentration (%)	Formula	Product identifier	GHS SG classification
cellulose nitrate	-	5 – 17	HNO ₃ .x No especificado	CAS-No.: 9004-70-0	Expl. 1.1, H201
glycerol trinitrate	-	2 – 7	C ₃ H ₅ N ₃ O ₉	CAS-No.: 55-63-0 EC-No.: 200-240-8 EC Index-No.: 603-034-00-X	Unst. Expl., H200 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 STOT RE 2, H373 Aquatic Chronic 2, H411

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

Name	Synonyms	Concentration (%)	Formula	Product identifier	GHS SG classification
Lead styphnate	-	0.1 – 3	C6HN3O8Pb	CAS-No.: 15245-44-0 EC-No.: 239-290-0 EC Index-No.: 609-019-00-4	Unst. Expl., H200 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 1A, H360 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Barium nitrate	-	0 – 3	BaN2O6	CAS-No.: 10022-31-8 EC-No.: 233-020-5	Ox. Liq. 2, H272 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
copper	-	0 – 2	Cu	CAS-No.: 7440-50-8 EC-No.: 231-159-6	Aquatic Acute 1, H400
zinc	-	0 – 2	Zn	CAS-No.: 7440-66-6 EC-No.: 231-175-3 EC Index-No.: 030-001-01-9	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Diphenylamine	-	0 – 1	C12H11N	CAS-No.: 122-39-4 EC-No.: 204-539-4 EC Index-No.: 612-026-00-5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2A, H319 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tetrazene	-	0 – 1	C2H8N10O	CAS-No.: 109-27-3	Unst. Expl., H200 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	In all cases of doubt, or when symptoms persist, seek medical attention.
Inhalation	Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

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

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	No additional information available.
-----------------------------------	--------------------------------------

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

SECTION 5: Fire-fighting measures

5.1. Suitable 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 ₂). Nitrous gasses.
--	---

5.3. Special protective actions 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

Protective equipment	Wear recommended personal protective equipment.
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 the regulations, wipe down with water the contaminated area. Store away from other materials.
Other information	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

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.

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

glycerol trinitrate (55-63-0)	
Singapore - Occupational Exposure Limits	
Local name	Nitroglycerin (NG)
PEL (OEL TWA)	0.46 mg/m ³
	0.05 ppm
Regulatory reference	WSH Regulations 2014
copper (7440-50-8)	
Singapore - Occupational Exposure Limits	
Local name	Copper
PEL (OEL TWA)	0.2 mg/m ³ Fume
	1 mg/m ³ Dusts and mists, as Cu
Regulatory reference	WSH Regulations 2014
Diphenylamine (122-39-4)	
Singapore - Occupational Exposure Limits	
Local name	Diphenylamine
PEL (OEL TWA)	10 mg/m ³
Regulatory reference	WSH Regulations 2014

8.2. Appropriate engineering control measures

Appropriate engineering controls No additional information available.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

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

Hand protection	Not required for normal conditions of use
Eye protection	Chemical goggles or safety glasses. ISO 16321-1
Skin and body protection	When using cartridge operated tools, sufficient ear protection must be worn.
Respiratory protection	Respiratory protection not required in normal conditions

Personal protective equipment symbol(s)



Thermal hazard protection	No information available.
Environmental exposure controls	Do not eat, drink or smoke during use. Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	According to product specification

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

Odour	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Odour threshold	No data available
pH	Not available
Melting point	Not available
Freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Explosive limits	Explosive properties: Fire or projection hazard.
Vapour pressure	Not available
Relative vapour density at 20°C	Not available
Density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient n-octanol/water (Log Kow)	Not available
Partition coefficient n-octanol/water (Log Pow)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity, kinematic	Not available
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available

9.2. Other information

Additional information Not applicable. Article

SECTION 10: Stability and reactivity

10.1. Reactivity

Fire or projection hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Risk of explosion by shock, friction, fire or other sources of ignition. Heating may cause an explosion. At high temperatures : > 150 °C Response.

10.4. Conditions to avoid

Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

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. Acute toxicity

Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Based on available data, the classification criteria are not met)

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

glycerol trinitrate (55-63-0)	
LD50 oral	685 mg/kg
LD50 dermal rat	> 9560 mg/kg bodyweight (OECD 402 method)
LD50 dermal	9560 mg/kg
Lead styphnate (15245-44-0)	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 Inhalation - Rat (Dust/Mist)	> 5.05 mg/l/4h (OECD 403 method)
Barium nitrate (10022-31-8)	
LD50 oral	355 mg/kg
zinc (7440-66-6)	
LD50 oral rat	> 2000 mg/kg (OECD 401 method)
LD50 oral	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5.41 mg/l/4h
Diphenylamine (122-39-4)	
LD50 oral rat	> 800 mg/kg bodyweight
LD50 oral	2480 mg/kg
LD50 dermal	5000 mg/kg
Skin corrosion or irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage or irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)
glycerol trinitrate (55-63-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Lead styphnate (15245-44-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Diphenylamine (122-39-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms	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.

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

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.
Hazardous to the aquatic environment, short-term (acute)	Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	Not classified (Based on available data, the classification criteria are not met)
Other information	Avoid release to the environment.

cellulose nitrate (9004-70-0)	
glycerol trinitrate (55-63-0)	
LC50 - Fish [1]	1.9 – 3.58 mg/l (96 h; Oncorhynchus mykiss; ASTM Designation E 729-80)
EC50 - Crustacea [1]	17.83 mg/l (48 h; Ceriodaphnia dubia; ASTM Designation E 729-80)
EC50 96h - Algae [1]	1.15 mg/l (Raphidocelis subcapitata; EPA TSCA Experimental Method 797.1060)
NOEC chronic fish	0.03 mg/l
NOEC chronic crustacea	3.23 mg/l (7 d; Ceriodaphnia dubia)
Lead styphnate (15245-44-0)	
LC50 - Fish [1]	0.107 mg/l (96 h; Oncorhynchus mykiss; Lead)
EC50 - Crustacea [1]	7 mg/l
NOEC chronic fish	0.0189 – 1.559 mg/l (Fish; Lead)
NOEC chronic crustacea	0.0017 – 0.496 mg/l (aquatic invertebrates; Lead)
BCF - Fish [1]	1.553
Partition coefficient n-octanol/water (Log Kow)	-2.19 (20 °C)
Barium nitrate (10022-31-8)	
EC50 - Crustacea [1]	9018 mg/l
copper (7440-50-8)	
zinc (7440-66-6)	
LC50 - Fish [1]	169 µg/l (96h; Oncorhynchus Mykiss)
EC50 - Crustacea [1]	< 0.1 µg/l (48h; Ceriodaphnia dubia)
ErC50 algae	0.15 mg/l
NOEC chronic fish	26 µg/L (30 d; Jordanella floridae)
NOEC chronic crustacea	48 µg/L (21d; Daphnia magna; (OECD 211 method))
Diphenylamine (122-39-4)	
EC50 - Crustacea [1]	2 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h - Algae [1]	2.17 mg/l (Raphidocelis subcapitata; (OECD 201 method))

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

Diphenylamine (122-39-4)	
NOEC chronic algae	0.0273 mg/l
Partition coefficient n-octanol/water (Log Kow)	3.82 (20,2 °C)
tetrazene (109-27-3)	
EC50 - Crustacea [1]	0.14 mg/l

12.2. Persistence and degradability

DX-Cartridge	
Persistence and degradability	Not established.
glycerol trinitrate (55-63-0)	
Persistence and degradability	Inherently biodegradable.
Biodegradation	92.2 % (84 h)
zinc (7440-66-6)	
Persistence and degradability	Not applicable for inorganic products.
Diphenylamine (122-39-4)	
Persistence and degradability	Not readily biodegraded.
Biodegradation	26 % (28 d; (OECD 301D method))

12.3. Bioaccumulative potential

DX-Cartridge	
Bioaccumulative potential	Not established.
glycerol trinitrate (55-63-0)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).
Lead styphnate (15245-44-0)	
BCF - Fish [1]	1.553
Partition coefficient n-octanol/water (Log Kow)	-2.19 (20 °C)
zinc (7440-66-6)	
Bioaccumulative potential	Bioaccumulation unlikely.
Diphenylamine (122-39-4)	
Partition coefficient n-octanol/water (Log Kow)	3.82 (20,2 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

DX-Cartridge	
Mobility in soil	No additional information available
glycerol trinitrate (55-63-0)	
Ecology - soil	Low potential for adsorption in soil.
Lead styphnate (15245-44-0)	
Partition coefficient n-octanol/water (Log Kow)	-2.19 (20 °C)

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

Diphenylamine (122-39-4)	
Surface tension	72.3 mN/m (20 °C; EU Method A.5)
Partition coefficient n-octanol/water (Log Kow)	3.82 (20,2 °C)

12.5. Other adverse effects

Ozone	Not classified (Based on available data, the classification criteria are not met)
Other adverse effects	No additional information available.

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling. At high temperatures may form : Response.
Additional information	<p>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.</p> <p>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.</p> <p>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.</p>

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

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

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

14.6. Special precautions for user

Overland transport

Classification code (ADR)	1.4S
Special provisions (ADR)	347
Limited quantities (ADR)	0
Excepted quantities (ADR)	E0
Packing instructions (ADR)	P134, LP102
Mixed packing provisions (ADR)	MP23
Transport category (ADR)	4
Special provisions for carriage - Loading, unloading and handling (ADR)	CV1, CV2, CV3
Special provisions for carriage - Operation (ADR)	S1
Tunnel restriction code (ADR)	E

Transport by sea

Special provisions (IMDG)	347
Limited quantities (IMDG)	0
Excepted quantities (IMDG)	E0
Packing instructions (IMDG)	P134, LP102
EmS-No. (Fire)	F-B
EmS-No. (Spillage)	S-X
Stowage category (IMDG)	01
Stowage and handling (IMDG)	SW1
Flash point (IMDG)	
Properties and observations (IMDG)	See glossary of terms in appendix B.
MFAG-No	114

Air transport

PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	134
PCA max net quantity (IATA)	25kg
CAO packing instructions (IATA)	134
CAO max net quantity (IATA)	100kg
Special provisions (IATA)	A165, A802
ERG code (IATA)	3L

Rail transport

Classification code (RID)	1.4S
Special provisions (RID)	347
Limited quantities (RID)	0
Excepted quantities (RID)	E0
Packing instructions (RID)	P134, LP102
Mixed packing provisions (RID)	MP23
Transport category (RID)	4
Special provisions for carriage – Packages (RID)	W2
Special provisions for carriage - Loading, unloading and handling (RID)	CW1
Colis express (express parcels) (RID)	CE1
Hazard identification number (RID)	1.4S

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Regulation		Component / Mixture
Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations	Applicable	cellulose nitrate; glycerol trinitrate; Lead styphnate; Barium nitrate; copper; zinc; Diphenylamine; tetrazene
Arms and Explosives Act	Explosive Precursors (Second Schedule)	Barium nitrate
Chemical Weapons Prohibition Act	Not applicable	
Environmental Protection and Management (Air Impurities) Regulations	Air Impurities Emission Limits	Copper
Environmental Protection and Management Act (Hazardous Substances)	Not applicable	
Environmental Public Health (Quality of Piped Drinking Water) Regulations	Drinking Water Quality Standards - Chemical Parameters	Copper
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	Petroleum and Flammable Materials	Nitrocellulose; Nitroglycerin; Zinc
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	Maritime and Port Authority-Dangerous Goods	Nitrocellulose; Nitroglycerin, desensitized; Lead styphnate, wetted; Guanyl nitrosaminoguanyltetrazene, wetted
Misuse of Drugs Act	Not applicable	
Poisons Act	Poisons List	Glyceryl trinitrate
Poisons Rules	First Schedule	Glyceryl trinitrate
	Third Schedule	Glyceryl trinitrate
Hazardous waste (Control of export, import and transit) Act	Not applicable	
Strategic goods (Control) Act	Military Goods - Energetic Materials and Related Substances - Exemptions	Nitrocellulose; Nitroglycerin; Lead styphnate
	Military Goods - Energetic Materials and Related Substances	DX-Cartridge

15.2. International regulations

No additional information available

SECTION 16: Other information

Issue date	08/01/2026
Revision date	08/01/2026
Data sources	Supplier Safety Data Sheet.
Abbreviations and acronyms	CAS-No. - Chemical Abstracts Service number 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 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DNEL - Derived-No Effect Level EC50 - Median effective concentration ED - Endocrine disruptor

DX-Cartridge

Safety Data Sheet

According to SS 586 Part 3 (2022)

EC-No. - European Community number
EN - European Standard
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
IOELV - Indicative Occupational Exposure Limit Value
LC50 - Median lethal concentration
LD50 - Median lethal dose
NOEC - No-Observed Effect Concentration
OECD - Organisation for Economic Co-operation and Development
N.O.S. - Not Otherwise Specified
OEL - Occupational Exposure Limit
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
STP - Sewage treatment plant
TLM - Median Tolerance Limit
TRGS - Technical Rules for Hazardous Substances
VOC - Volatile Organic Compounds
WGK - Water Hazard Class
vPvB - Very Persistent and Very Bioaccumulative
NOAEL - No-Observed Adverse Effect Level
NOAEC - No-Observed Adverse Effect Concentration
LOAEL - Lowest Observed Adverse Effect Level

SDS SG HILTI

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