

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Version 4.1

Revision date: 2026/01/08

Issue date: 2026/01/08

Supersedes:

SECTION 1 Chemical product and company identification

Product identifier

Product form	Article
Name	DX-Cartridge
Product code	BU Direct Fastening
Chemical Chinese name	-
Chemical English name	-
Recommended use of the chemical	CARTRIDGES FOR TOOLS, BLANK
Restricted use of the chemical	For professional use only

Details of the supplier of the safety data sheet

Supplier

Hilti (China) Ltd.
8F, Tower 2, No.58 Yao Yuan
Rd.
Pudong District
200126 Shanghai - China
T +86 21 6016 7316

Department issuing data specification sheet

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

Emergency telephone number

Emergency number

Emergency CONTACT (24-Hour-Number)
GBK GmbH Global Regulatory Compliance
+49 (0) 6132-84463

Country	Organisation/Company	Address	Emergency number
China	中国境内化学事故应急咨询电话 / chemical accident emergency consultation service hotline (24/7)		+86 532 83889090

SECTION 2 Hazards identification

Emergency overview

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat, Store in a dry place, Strong bases, Strong acids. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Fire or projection hazard. For further information refer to section 8: "Exposure controls/personal protection". Treat symptomatically

GHS hazard classification

Physical hazards Explosives, Division 1.4

Other hazards not mentioned above are Not applicable or No data is available.

Label elements

Hazard pictograms (GHS CN)



Signal word (GHS CN)

Warning.

Hazard statements (GHS CN)

H204 - Fire or projection hazard.

Precautionary statements (GHS CN)

Prevention measures

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.

Incident response

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

P372 - Explosion risk in case of fire.

Safe storage

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

Physical and chemical hazards

Fire or projection hazard

Health hazards

Symptoms/effects

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

Environmental hazards

No additional information available

Other hazards

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

Product form

Article.

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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.

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
cellulose nitrate	5 - 17	9004-70-0
glycerol trinitrate	2 - 7	55-63-0
Lead styphnate	0.1 - 3	15245-44-0
Barium nitrate	0 - 3	10022-31-8
copper	0 - 2	7440-50-8
zinc	0 - 2	7440-66-6
Diphenylamine	0 - 1	122-39-4
tetrazene	0 - 1	109-27-3

SECTION 4 First-aid measures

Description of necessary 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

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

Most important symptoms/effects

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

Advices for first aid responders

First aid workers will be equipped with suitable personal protective equipment.

Notes for the doctor

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

SECTION 5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Dry powder Water spray
Unsuitable extinguishing media	Do not use a heavy water stream

Specific hazards

Hazardous decomposition products in case of fire	Carbon monoxide Carbon dioxide (CO ₂) Nitrous gasses
--	--

Advice for firefighters and protective 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	Do not enter fire area without proper protective equipment, including respiratory protection

SECTION 6 Accidental release measures

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
Personal Precautions, Protective Equipment and Emergency Procedures	No additional information available

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

For non-emergency personnel

Protective equipment	Wear recommended personal protective equipment
Emergency procedures	Evacuate unnecessary personnel

For emergency responders

Protective equipment	Equip cleanup crew with proper protection
Emergency procedures	Ventilate area

Environmental precautions

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

Methods and material for containment and cleaning up

Methods for cleaning	No additional information available
For containment	No additional information available

Prevention measures for secondary accidents

Prevention Measures for Secondary Accidents	No additional information available
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

Handling

Precautions for safe handling	Do not subject to grinding, shock, friction. Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product
Local and general ventilation	No additional information available
Additional hazards when processed	Hazardous waste due to potential risk of explosion

Storage

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.
Material used in packaging/containers	No additional information available
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

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Storage area

Store away from heat

SECTION 8 Exposure controls / Personal protection equipment

Occupational exposure limits

glycerol trinitrate (55-63-0)

China - Occupational Exposure Limits

Local name	硝化甘油 # Nitroglycerine
OEL MAC	1 mg / m ³
Remark (CN)	皮
Regulatory reference	GBZ 2.1-2019

copper (7440-50-8)

China - Occupational Exposure Limits

Local name	铜 (按 Cu 计) # Copper, as Cu
OEL PC-TWA	1 mg / m ³ 尘 # dust 0.2 mg / m ³ 烟 # fume
Regulatory reference	GBZ 2.1-2019

Diphenylamine (122-39-4)

China - Occupational Exposure Limits

Local name	二苯胺 # Diphenylamine
OEL PC-TWA	10 mg / m ³
Regulatory reference	GBZ 2.1-2019

Biological limit values

No additional information available

Monitoring methods

No additional information available

Appropriate engineering controls

No additional information available

Personal protective equipment

Personal protective equipment

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

Thermal hazard protection

No information available

Environmental exposure controls

Avoid release to the environment.

Other information

Do not eat, drink or smoke during use

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)

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519



SECTION 9 Physical and chemical properties

Physical state	Solid
Appearance	No data available
Colour	According to product specification
Odour	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
pH	No data available
Melting point	No data available
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20° C	No data available
Density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	Not applicable
Explosive limits (vol %)	Not applicable
Lower explosion limit	No data available
Upper explosion limit	No data available
Radioactive	No
Explosive properties	Fire or projection hazard.
Particle size	Not available

SECTION 10 Stability and reactivity

Chemical stability	Stable under normal conditions
Reactivity	Fire or projection hazard.
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
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
Incompatible materials	Strong acids Strong bases

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Hazardous decomposition products	Carbon monoxide Carbon dioxide Nitrogen oxides Metal oxides Thermal decomposition can lead to the release of irritating gases and vapours
Other properties	No additional information available

SECTION 11 Toxicological information

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)

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
ATE CN (oral)	5 mg/kg bodyweight
ATE CN (dermal)	5 mg/kg bodyweight
ATE CN (gases)	100 ppmv/4h
ATE CN (vapours)	0.5 mg/l/4h
ATE CN (dust, mist)	0.05 mg/l/4h

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)
ATE CN (oral)	500 mg/kg bodyweight
ATE CN (dust, mist)	1.5 mg/l/4h

Barium nitrate (10022-31-8)

LD50 oral	355 mg/kg
ATE CN (oral)	355 mg/kg bodyweight
ATE CN (gases)	4500 ppmv/4h
ATE CN (vapours)	11 mg/l/4h
ATE CN (dust, mist)	1.5 mg/l/4h

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
ATE CN (oral)	2500 mg/kg bodyweight
ATE CN (dust, mist)	5.41 mg/l/4h

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Diphenylamine (122-39-4)	
LD50 oral rat	> 800 mg/kg bodyweight
LD50 oral	2480 mg/kg
LD50 dermal	5000 mg/kg
ATE CN (oral)	100 mg/kg bodyweight
ATE CN (dermal)	300 mg/kg bodyweight
ATE CN (gases)	700 ppmv/4h
ATE CN (vapours)	3 mg/l/4h
ATE CN (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation

Skin corrosion/irritation Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/eye irritation

Serious eye damage/irritation Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation

Respiratory or skin sensitisation Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity

Germ cell mutagenicity Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity

Carcinogenicity Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity

Reproductive toxicity Not classified (Based on available data, the classification criteria are not met)

STOT - single exposure

STOT - single exposure Not classified (Based on available data, the classification criteria are not met)

Barium nitrate (10022-31-8)

STOT - single exposure	Causes damage to organs.
------------------------	--------------------------

STOT - repeated exposure

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.
--------------------------	--

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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

Aspiration hazard Not classified (Based on available data, the classification criteria are not met)

DX-Cartridge

Viscosity, kinematic Not applicable

SECTION 12 Ecological information

Ecotoxicity

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)

glycerol trinitrate (55-63-0)	
LC50 - Fish [1]	1.9 - 3.58 mg/l (96 h; <i>Oncorhynchus mykiss</i> ; ASTM Designation E 729-80)
EC50 - Crustacea [1]	17.83 mg/l (48 h; <i>Ceriodaphnia dubia</i> ; ASTM Designation E 729-80)
EC50 96h - Algae [1]	1.15 mg/l (<i>Raphidocelis subcapitata</i> ; EPA TSCA Experimental Method 797.1060)
NOEC chronic fish	0.03 mg/l
NOEC chronic crustacea	3.23 mg/l (7 d; <i>Ceriodaphnia dubia</i>)

Lead styphnate (15245-44-0)	
LC50 - Fish [1]	0.107 mg/l (96 h; <i>Oncorhynchus mykiss</i> ; 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

zinc (7440-66-6)	
LC50 - Fish [1]	169 µg/l (96 h; <i>Oncorhynchus Mykiss</i>)

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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))
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

Persistence and degradability

DX-Cartridge

Persistence and degradability Not established

glycerol trinitrate (55-63-0)	
Not rapidly degradable	Yes
Persistence and degradability	Inherently biodegradable
Biodegradation	92.2 % (84 h)
Lead styphnate (15245-44-0)	
Not rapidly degradable	Yes
Barium nitrate (10022-31-8)	
Not rapidly degradable	Yes
copper (7440-50-8)	
Not rapidly degradable	Yes
zinc (7440-66-6)	
Not rapidly degradable	Yes
Persistence and degradability	Not applicable for inorganic products
Diphenylamine (122-39-4)	
Not rapidly degradable	Yes
Persistence and degradability	Not readily biodegraded
Biodegradation	26 % (28 d; (OECD 301D method))
tetrazene (109-27-3)	
Not rapidly degradable	Yes

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]	See section 12.1 on ecotoxicology 1.553

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology-2.19 (20 ° C)
zinc (7440-66-6)	
Bioaccumulative potential	Bioaccumulation unlikely
Diphenylamine (122-39-4)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology3.82 (20, 2 ° C)

Mobility in soil

DX-Cartridge

Bioaccumulative potential Not established

glycerol trinitrate (55-63-0)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Ecology - soil	Low potential for adsorption in soil.
Lead styphnate (15245-44-0)	
Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology-2.19 (20 ° C)
zinc (7440-66-6)	
Bioaccumulative potential	Bioaccumulation unlikely
Diphenylamine (122-39-4)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4)
Surface tension	72.3 mN/m (20 ° C; EU Method A.5)
Partition coefficient n-octanol/water (Log Kow)	See section 12.1 on ecotoxicology3.82 (20, 2 ° C)

Other adverse effects

Classification procedure (Ozone)	Not classified (Based on available data, the classification criteria are not met)
Other adverse effects	No additional information available
Other information	Avoid release to the environment.

Results of PBT and vPvB assessment

PBT	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
vPvB	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIV

SECTION 13 Disposal considerations

Waste treatment methods	No additional information available
Contaminated container and packaging	No additional information available

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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, Do not re-use empty containers.

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

Avoid release to the environment.

Ecological waste information

Disposal must be done according to official regulations

Sewage disposal recommendations

Disposal must be done according to official regulations

Regional waste regulation

SECTION 14 Transport information

In accordance with JT/T 617 / IMDG / IATA

Overland transport (JT/T 617)	Transport by sea	Air transport
UN number		
0323	0323	0323
Proper shipping name		
CARTRIDGES, POWER DEVICE	CARTRIDGES, POWER DEVICE	Cartridges, power device
Transport document description		
UN 0323, CARTRIDGES, POWER DEVICE, Division 1.4S	UN 0323 CARTRIDGES, POWER DEVICE, 1.4S	UN 0323 Cartridges, power device, 1.4S
Transport hazard class(es)		
1.4S	1.4S	1.4S
		
Packing group		
Not applicable	Not applicable	Not applicable

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Overland transport (JT/T 617)	Transport by sea	Air transport
Environmental hazards		
Dangerous for the environment No	Dangerous for the environment No Marine pollutant No	Dangerous for the environment No
No supplementary information available		

Special transport precautions

MFAG-No	114
Overland transport (JT/T 617)	
Classification code (JT/T 617)	1.4S.
Special provisions (JT/T 617)	347.
Limited quantities (JT/T 617)	0.
Excepted quantities (JT/T 617)	E0.
Packing instructions (JT/T 617)	P134, LP102.
Mixed packing provisions (JT/T 617)	MP23.
Transport category (JT/T 617)	4.
Tunnel restriction code (JT/T 617)	E.
Special provisions for carriage - Loading, unloading and handling (JT/T 617)	CV1, CV2, CV3.
Special provisions for carriage - Operation (JT/T 617)	S1.
Hazard identification number (JT/T 617)	1.4S.
Orange-coloured plate (JT/T 617)	1.4S 0323

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)	

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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)	25 kg.
CAO packing instructions (IATA)	134.
CAO max net quantity (IATA)	100 kg.
Special provisions (IATA)	A165, A802.
ERG code (IATA)	3L.

SECTION 15 Regulatory information

Dangerous Goods List (GB 12268)	Contains listed substance(s).
Regulation on the Safety Management of Hazardous Chemicals	Catalogue of Hazardous Chemicals (2015).
Rules for dangerous goods transport by railway	List of dangerous goods by railway (2009).
Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used	List of Highly Toxic Chemicals (2002).
Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals	Not listed.
Regulation of the People's Republic of China on the Administration of the Import and Export of Goods	Not listed.
Regulation on the Control of Precursor Chemicals	Not listed.
Measures for the Administration of Pharmaceutical Precursor Chemicals	Not listed.
Regulations on the Control of Agricultural Chemicals; Notice of Pesticide Transport	Not listed.
Regulation on the Management of Controlled Chemicals	Not listed.
New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)	

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Inventory of Existing Chemical Substances in China (IECSC)	Contains listed substance(s) Cellulose, nitrate (CAS-No. 9004-70-0) 1, 2, 3-Propanetriol, 1, 2, 3-trinitrate (CAS-No. 55-63-0) Barium nitrate (CAS-No. 10022-31-8) Copper (CAS-No. 7440-50-8) Zinc (CAS-No. 7440-66-6) Diphenylamine (CAS-No. 122-39-4)
Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)	
Catalogue of Hazardous Chemicals (2015)	Contains Hazardous Chemical(s) cellulose nitrate (CAS-No. 9004-70-0) Nitroglycerin [desensitized with not less than 40% non-volatile water-insoluble phlegmatizer, by mass] (CAS-No. 55-63-0) lead 2, 4, 6-trinitro-m-phenylene dioxide [with not less than 20% phlegmatizer] (CAS-No. 15245-44-0) Barium nitrate (CAS-No. 10022-31-8) copper zinc (CAS-No. 7440-66-6) Diphenylamine (CAS-No. 122-39-4) Guanyl nitrosaminoguanyl tetrazene, wetted with not less than 30% water, or mixture of alcohol and water, by mass (CAS-No. 109-27-3)
Identification of major hazard installations for dangerous chemicals (GB 18218)	Considered as Hazardous Chemical(s) Contains listed substance(s) cellulose nitrate (CAS-No. 9004-70-0) Nitroglycerine (CAS-No. 55-63-0)
Catalogue of Explosive Precursor Dangerous Chemicals	Contains listed substance(s) cellulose nitrate (CAS-No. 9004-70-0) Barium nitrate (CAS-No. 10022-31-8) zinc (CAS-No. 7440-66-6)
Law of the People's Republic of China on the Prevention and Control of Occupational Diseases	
Catalogue for Classification of Hazardous Factors of Occupational Diseases	Contains listed substance(s) Nitroglycerine (CAS-No. 55-63-0)
List of Highly Toxic Substances	Contains listed substance(s) Diphenylamine (CAS-No. 122-39-4)
Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)	
Catalogue of Precursor Chemicals	
Other domestic regulatory lists	
Dangerous Goods List (GB 12268)	Contains listed substance(s) cellulose nitrate (CAS-No. 9004-70-0) NITROGLYCERIN SOLUTION IN ALCOHOL with not more than 1% nitroglycerin (CAS-No. 55-63-0) BARIUM NITRATE (CAS-No. 10022-31-8) ZINC POWDER or ZINC DUST (CAS-No. 7440-66-6) GUANYLNITROSAMINO-GUANYLTETRAZENE (TETRAZENE), WETTED with not less than 30% water, or mixture of alcohol and water, by mass (CAS-No. 109-27-3)
Inventory of Hazardous Chemicals under Key Supervision	Contains listed substance(s) Nitrocellulose (CAS-No. 9004-70-0) Nitroglycerine (CAS-No. 55-63-0)

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

SECTION 16 Other information

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
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

Indication of changes

General revision

DX-Cartridge

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

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.