

DX-Cartridge

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Issue date: 23/07/2025

Revision date: 23/07/2025

Supersedes: 20/10/2021

Version: 4.0

SECTION 1: Identification

1.1 Product identifier

Name	DX-Cartridge
Product form	Article
Product code	BU Direct Fastening

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 Details of manufacturer or importer

Supplier

Hilti (New Zealand) Ltd.
Level 1, Building B 600 South Road Ellerslie
Auckland 1051
New Zealand
T +64 9 571 9995
800 444 584 toll free - F +64 9526 7780
servicenz@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
Schaan 9494
Liechtenstein
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
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Country	Organisation/Company	Address	Emergency number
New Zealand	National Poisons Centre		0800 764 766

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

HSNO Approval Number	HSR100249
hazardous nature	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)

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Explosives, Division 1.4	H204
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2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ)



Signal word (GHS NZ)	Warning
Hazard statements (GHS NZ)	H204 - Fire or projection hazard

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Prevention	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P250 - Do not subject to friction, grinding, shock. 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.

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)
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SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments	<p>max. net explosives weight each cartridge in mg:</p> <p>Caliber 6.8/11 (cal .27 short) white: 130; brown: 140; green: 160; yellow: 180; red: 230; titanium: 230; black: 260</p> <p>Caliber 6.8/18 (cal .27 long) green: 190; yellow: 220; blue: 300; red: 330; black: 410</p> <p>Caliber 6.3/10 (cal. 25) green 120; yellow: 190; red: 230; black: 250</p> <p>Caliber 5.5/16 (cal .22) grey: 105; brown: 120; green: 175; yellow: 210; red: 270.</p> <p>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.</p> <p>Propellant powder: glycerol trinitrate containing nitrocellulose powder</p> <p>Mass per cartridge: essentially dependent on the required power (100-400 mg).</p> <p>Exposed propellant powder outside a cartridge is harmful if swallowed and highly flammable; without tamping no explosion risk.</p> <p>Packed safety cartridges don't represent a significant risk.</p> <p>In case of reaction no dangerous fragments or projectiles will be formed.</p> <p>Mechanical or thermal attempts to expose the primer composition lead to an immediate reaction of the dangerous ingredients.</p>
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Name	Product identifier	%	Classification according to GHS NZ
cellulose nitrate	CAS-No.: 9004-70-0	5 – 21	Expl. 1.1, H201
glycerol trinitrate	CAS-No.: 55-63-0	2 – 10	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
lead styphnate	CAS-No.: 15245-44-0	0.1 – 3	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

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Name	Product identifier	%	Classification according to GHS NZ
Barium nitrate	CAS-No.: 10022-31-8	0.1 – 3	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 STOT RE 2, H373
copper	CAS-No.: 7440-50-8	0 – 2	Aquatic Acute 1, H400 Aquatic Chronic 3, H412
zinc	CAS-No.: 7440-66-6	0 – 2	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Diphenylamine	CAS-No.: 122-39-4	0.1 – 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Eye Irrit. 2, H319 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tetrazene	CAS-No.: 109-27-3	0 – 1	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.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	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. Rinse eyes with water as a precaution.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
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4.3. Medical attention and special treatment

Other medical advice or treatment	No additional information available.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Unsuitable extinguishing media	Do not use a heavy water stream.
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5.2. Specific hazards arising from the chemical

Fire hazard	Explosion risk in case of fire.
General measures	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
Hazardous decomposition products in case of fire	Carbon monoxide. Carbon dioxide (CO ₂). Nitrous gasses.

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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.
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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 materials 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.
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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

Technical measures	Ground/bond container and receiving equipment.
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 and personal protection

8.1. Control parameters - exposure standards

copper (7440-50-8)	
New Zealand - Occupational Exposure Limits	
Local name	Copper and its inorganic compounds, as Cu

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copper (7440-50-8)	
WES-TWA (OEL TWA)	0.01 mg/m ³ r (The value for respirable dust)
Remark (NZ)	d _{sen} (Dermal sensitiser)
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 15th Edition
Diphenylamine (122-39-4)	
New Zealand - Occupational Exposure Limits	
Local name	Diphenylamine
WES-TWA (OEL TWA)	5 mg/m ³
WES-STEL (OEL STEL)	10 mg/m ³
Remark (NZ)	skin (Skin absorption)
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 15th Edition

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls

No additional information available.

8.4. 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

Avoid release to the environment.

Other information

Do not eat, drink or smoke during use.

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.

Odour threshold

No additional information available

pH

No additional information available

Evaporation rate

No additional information available

Relative evaporation rate (butylacetate=1)

No data available

Melting point / Freezing point

No additional information available

Boiling point

No data available

Flash point

No data available

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Auto-ignition temperature	No data available
Flammability	No additional information available
Vapour pressure	No additional information available
Relative density	No additional information available
Density	No additional information available
Solubility	No additional information available
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, dynamic	No data available
Explosive properties	Fire or projection hazard.
Explosive limits	No additional information available
Minimum ignition energy	No data available
Particle size	Not available
Additional information	Not applicable. Article

SECTION 10: Stability and reactivity

Reactivity	Fire or projection hazard.
Chemical stability	Stable under normal conditions.
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	Direct sunlight. 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.
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. 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
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

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Diphenylamine (122-39-4)	
LD50 oral rat	> 800 mg/kg bodyweight
LD50 oral	2480 mg/kg
LD50 dermal	5000 mg/kg
Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/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.
Barium nitrate (10022-31-8)	
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.

SECTION 12: Ecological information

12.1. 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)
Soil toxicity	Not classified (Based on available data, the classification criteria are not met)
Terrestrial vertebrate toxicity	Not classified (Based on available data, the classification criteria are not met)
Terrestrial invertebrate toxicity	Not classified (Based on available data, the classification criteria are not met)
Other information	Avoid release to the environment.

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)
NOEC chronic fish	0.03 mg/l
NOEC chronic crustacea	3.23 mg/l (7 d; Ceriodaphnia dubia)

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glycerol trinitrate (55-63-0)	
	> 9560 mg/kg bodyweight (OECD 402 method)
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)
	> 2000 mg/kg bodyweight (OECD 402 method)
LD50 oral rat	> 2000 mg/kg bodyweight
Barium nitrate (10022-31-8)	
EC50 - Crustacea [1]	9018 mg/l
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))
LD50 oral rat	> 2000 mg/kg (OECD 401 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)
LD50 oral rat	> 800 mg/kg bodyweight
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)	
Not rapidly degradable	
Persistence and degradability	Inherently biodegradable.
Biodegradation	92.2 % (84 h)
lead styphnate (15245-44-0)	
Not rapidly degradable	
Barium nitrate (10022-31-8)	
Not rapidly degradable	

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copper (7440-50-8)	
Not rapidly degradable	
zinc (7440-66-6)	
Not rapidly degradable	
Persistence and degradability	Not applicable for inorganic products.
Diphenylamine (122-39-4)	
Not rapidly degradable	
Persistence and degradability	Not readily biodegraded.
Biodegradation	26 % (28 d; (OECD 301D method))
tetrazene (109-27-3)	
Not rapidly degradable	

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)
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.

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SECTION 13: Disposal considerations

Waste treatment methods	Must follow special treatment according to local regulation.
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.
Ecological waste information	Avoid release to the environment.
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.

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			

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

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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
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

SECTION 15: Regulatory information

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

Hazardous Substances and New Organisms Act

HSNO Approval Number HSR100249

cellulose nitrate (9004-70-0)	
Hazardous Substances and New Organisms Act	
HSNO Approval Number	HSR001492

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Barium nitrate (10022-31-8)	
Hazardous Substances and New Organisms Act	
HSNO Approval Number	HSR001312

copper (7440-50-8)	
Hazardous Substances and New Organisms Act	
HSNO Approval Number	HSR002948

Diphenylamine (122-39-4)	
Hazardous Substances and New Organisms Act	
HSNO Approval Number	HSR002712

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date	23/07/2025
Revision date	23/07/2025
Supersedes	20/10/2021

Indication of changes			
Section	Changed item	Change	Comments
1	Department issuing data specification sheet	Modified	
3	Composition/information on ingredients	Modified	
8.4	Personal protective equipment	Modified	

Data sources Supplier Safety Data Sheet.

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Abbreviations and acronyms

CAS-No. - Chemical Abstract 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

Other information

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis.

Full text of H-statements	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2

DX-Cartridge

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Full text of H-statements	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Expl. 1.1	Explosives, Division 1.1
Expl. 1.4	Explosives, Division 1.4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Sol. 2	Oxidising Solids, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
Unst. Expl.	Explosives, Unstable explosives
H200	Unstable explosives
H201	Explosive; mass explosion hazard
H204	Fire or projection hazard
H272	May intensify fire; oxidiser
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful 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
H332	Harmful if inhaled
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
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

SDS NZ 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.