

# Synthetic diamond electro-plated wire

## Safety Data Sheet

according to SOR/2015-17, Hazardous Products Regulations (HPR) , as amended by SOR/2022-272  
Issue date: 11/11/2025 Revision date: 11/11/2025 Supersedes: 04/10/2025

Version: 2.0

## SECTION 1: Identification

### 1.1. Product identifier

Product form Article  
Generic name Synthetic diamond electro-plated wire  
Product code BU Diamond



### 1.2. Other means of identification

Other means of identification 2305646 DS-W 10.2 EP SP-L C&S (1m)  
2305645 DS-W 10.2-25m EP SP\_L C&S (25m)  
2305644 DS-W 10.2-50m EP SP\_L C&S (50m)  
2305643 DS-W 10.2-100m EP SP\_L C&S (100m)  
2305654 DS-W 9.0 EP SP-L C&S (1m)  
2305653 DS-W 10.8 EP SP-M/H St (1m)  
2305652 DS-W 10.8-25m EP SP-M/H St (25m)  
2305651 DS-W 10.8-50m EP SP-M/H St (50m)  
2305650 DS-W 10.8-100m EP SP-M/H St (100m)  
2305656 DS-W 9.0-100m EP SP-M/H St (1m)  
2305655 DS-W 7.5-50m EP SP-M/H St (1m)  
and all electro-plated closed loops

### 1.3. Recommended use of the chemical and restrictions on use

Recommended use Cutting of concrete, reinforced concrete, steel parts in the construction industry, granite, marble and other stones  
Restrictions on use For professional use only

### 1.4. Supplier's details

<b>Supplier</b>	<b>Department issuing data specification sheet</b>
Hilti (Canada) Corp.	Hilti AG
2201 Bristol Circle	Feldkircher Strasse 100
Suite 700	FL 9494 Schaan
CA L6H 0J8 Oakville, Ontario	Liechtenstein
Canada	T +423 234 2111
T +1905 8139200	<a href="mailto:product.compliance-power.tools@hilti.com">product.compliance-power.tools@hilti.com</a>
1-800-363-4458 toll free, F +1 905 813 9009	
<a href="mailto:ca-sales@hilti.com">ca-sales@hilti.com</a>	

### 1.5. Emergency telephone number

Emergency number Emergency CONTACT (24-Hour-Number)  
GBK/Infotrac ID 101022  
(USA domestic) 1 800 535 5053  
or international (001) 352 323 3500

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### SECTION 2: Hazard identification

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

##### Classification (GHS CA)

Not classified

#### 2.2. GHS Label elements, including precautionary statements

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

##### Comments

Synthetic diamond wires have been invented originally for the stone industry and are composed of a steel core wire mounted with beads and optionally springs. The wire can be injected with a medium, typically plastic or rubber.

Substance concentrations are depending on product and model.

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
nickel	nickel elemental nickel	CAS-No.: 7440-02-0	1 - 5	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372

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 after inhalation

Remove person to fresh air and keep comfortable for breathing. When symptoms occur: go into open air and ventilate suspected area.

##### First-aid measures after skin contact

Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

##### First-aid measures after eye contact

Do not rub eye. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

##### First-aid measures after ingestion

Rinse mouth.

#### 4.2. Most important symptoms and effects (acute and delayed)

##### Symptoms/effects after inhalation

May cause respiratory irritation.

##### Symptoms/effects after eye contact

May cause severe irritation.

##### Potential adverse human health effects and symptoms

Irritation: may cause irritation to the respiratory system.

#### 4.3. Immediate medical attention and special treatment, if necessary

##### Other medical advice or treatment

Treat symptomatically.

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### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

Suitable extinguishing media Use extinguishing agent suitable for surrounding fire. Water. Sand. Foam. Carbon dioxide.  
Unsuitable extinguishing media Do not use a heavy water stream.

#### 5.2. Specific hazards arising from the hazardous product

Fire hazard Not flammable.

#### 5.3. Special protective equipment and precautions for fire-fighters

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

No additional information available

#### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up Shovel into suitable and closed container for disposal.

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

Precautions for safe handling The product should not be used for purposes other than those shown above without first referring to the supplier and obtaining written handling instructions.  
Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.  
Additional hazards when processed Normal use of this product shall imply use in accordance with the instructions on the packaging and in line with the expectations of a professional user.

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

Storage conditions Store in a dry place. Protect from moisture. Keep away from heat and direct sunlight. Keep away from ignition sources.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

nickel (7440-02-0)

#### Canada (Alberta) - Occupational Exposure Limits

Local name	Nickel Elemental/metal
OEL TWA	1.5 mg/m <sup>3</sup>
Regulatory reference	Alberta Regulation 191/2021

#### Canada (Quebec) - Occupational Exposure Limits

Local name	Nickel Metal
VEMP (OEL TWAEV)	1.5 mg/m <sup>3</sup> Id



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Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
<b>Canada (British Columbia) - Occupational Exposure Limits</b>	
Local name	Nickel - Insoluble inorganic compounds, as Ni
OEL TWA	0.05 mg/m <sup>3</sup>
Notations and remarks	ACGIH Carcinogenicity category A1, IARC group 1 carcinogen; Nickel compounds are IARC group 1 carcinogens
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
<b>Canada (Manitoba) - Occupational Exposure Limits</b>	
Local name	Nickel, Elemental/Metal, as Ni
OEL TWA	1.5 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: Dermatitis; pneumoconiosis. Notations: A5 (Not Suspected as a Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>Canada (New Brunswick) - Occupational Exposure Limits</b>	
Local name	Nickel as Ni Elemental [7440-02-0]
OEL TWA	1.5 mg/m <sup>3</sup>
<b>Canada (Newfoundland and Labrador) - Occupational Exposure Limits</b>	
Local name	Nickel, Elemental/Metal, as Ni
OEL TWA	1.5 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: Dermatitis; pneumoconiosis. Notations: A5 (Not Suspected as a Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>Canada (Nova Scotia) - Occupational Exposure Limits</b>	
Local name	Nickel, Elemental/Metal, as Ni
OEL TWA	1.5 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: Dermatitis; pneumoconiosis. Notations: A5 (Not Suspected as a Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>Canada (Nunavut) - Occupational Exposure Limits</b>	
Local name	Nickel, (as Ni): Elemental
OEL TWA	1.5 mg/m <sup>3</sup> (inhalable fraction)
OEL STEL	3 mg/m <sup>3</sup> (inhalable fraction)
Notations and remarks	Designated substance
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
<b>Canada (Northwest Territories) - Occupational Exposure Limits</b>	
Local name	Nickel, (as Ni): Elemental
OEL TWA	1.5 mg/m <sup>3</sup> (inhalable fraction)



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OEL STEL	3 mg/m <sup>3</sup> (inhalable fraction)
Notations and remarks	Designated substance
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)

### Canada (Ontario) - Occupational Exposure Limits

Local name	Nickel - Elemental/metal
OEL TWAEV	1 mg/m <sup>3</sup> (I - Inhalable fraction)
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Ontario table of occupational exposure limits

### Canada (Prince Edward Island) - Occupational Exposure Limits

Local name	Nickel, Elemental/Metal, as Ni
OEL TWA	1.5 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: Dermatitis; pneumoconiosis. Notations: A5 (Not Suspected as a Human Carcinogen)
Regulatory reference	ACGIH 2025

### Canada (Saskatchewan) - Occupational Exposure Limits

Local name	Nickel, (as Ni): Elemental
OEL TWA	1.5 mg/m <sup>3</sup> (inhalable fraction)
OEL STEL	3 mg/m <sup>3</sup> (inhalable fraction)
Notations and remarks	Designated Chemical Substance
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

Additional information	This product is physiologically inert in its massive form. However, when used dust and / or fumes may generated and pose a physiological hazard if inhaled or ingested. Avoid inhalation of dusts as well as prolonged and repeated contact with skin to prevent mechanical irritation. Dust during usage is easily ignited and difficult to extinguish. Inhalation of particles in dust (from workpiece) may occur during use. A loud noise may occur during use.
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## 8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station. Use dust removal system, vacuum cleaner, air cleaner; cooling water cleaner (Hilti WMS system).

## 8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Dust formation: dust mask. In case of dust production: protective goggles. Gloves. Protective clothing.

Hand protection:				
Type	Material	Permeation	Thickness (mm)	Penetration
Protective gloves				

Eye protection:
Safety glasses

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Type	Field of application	Characteristics
Safety glasses	Dust	

<b>Skin and body protection:</b>
Wear suitable protective clothing

<b>Respiratory protection:</b>		
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended		
Device	Filter type	Condition
		Dust protection

### Personal protective equipment symbol(s):



### Other information:

Hazardous dust of the workpiece material may be generated during grinding / drilling and / or sanding operations. National regulations for dust exposure limit values have to be taken into consideration as part of the job hazard assessment.

Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated. This dust may present a fire or dust explosion hazard and may present a serious health hazard.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	No data available
Colour	Various colours
Odour	odourless
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Relative evaporation rate (ether=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	> 400 °C
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	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	No data available

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Explosive limits No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
Conditions to avoid	No additional information available
Incompatible materials	No additional information available
Hazardous decomposition products	No additional information available
Hardening time:	No additional information available

## 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

nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg (OECD 401 method)
LD50 oral	9000 mg/kg
LC50 Inhalation - Rat	≥ 10.2 mg/l (1 h)

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

nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified

nickel (7440-02-0)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.1 mg/m³ (2 years; (OECD 451 method))
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard	Not classified
Likely routes of exposure	Inhalation.
Potential adverse human health effects and symptoms	Irritation: may cause irritation to the respiratory system.
Symptoms/effects after inhalation	May cause respiratory irritation.
Symptoms/effects after eye contact	May cause severe irritation.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified

nickel (7440-02-0)	
LC50 - Fish [1]	15.3 mg/l (96h; Oncorhynchus mykiss (Rainbow trout))
EC50 - Other aquatic organisms [1]	0.0276 mg/l (48h; Ceriodaphnia dubia)
EC50 72h - Algae [1]	0.0815 mg/l (72h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic fish	0.057 mg/l (32 d; Pimephales promelas)
NOEC chronic crustacea	0.0037 mg/l (10 d; Ceriodaphnia dubia; (OECD 211 method))

#### 12.2. Persistence and degradability

nickel (7440-02-0)	
Persistence and degradability	Not applicable for inorganic substances.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### 12.3. Bioaccumulative potential

nickel (7440-02-0)	
Bioaccumulative potential	Not applicable for inorganic substances.
BCF - Other aquatic organisms [1]	8 – 45 (≤ 4 week(s), Cambarus sp., Flow-through system, Fresh water, Experimental value, Fresh weight)

#### 12.4. Mobility in soil

nickel (7440-02-0)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

#### 12.5. Other adverse effects

Ozone	Not classified
Other information	Do not allow the product, as is, to spread into the environment.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Regional waste regulation	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
Ecological waste information	Avoid release to the environment. Hazardous waste due to toxicity.

### SECTION 14: Transport information

In accordance with TDG / DOT / IMDG / IATA



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TDG	DOT	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

### 14.6. Special precautions for user

#### TDG

Not regulated

#### DOT

Not regulated

#### IMDG

Not regulated

#### IATA

Not regulated

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

Synthetic diamond electro-plated wire	
Canada DSL & NDSL Flags	All components of this product are listed, or excluded from listing, on the Canadian Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

nickel (7440-02-0)

Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	11-11-2025
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Indication of changes			
Section	Changed item	Change	Comments
	Legislation	Modified	

Full text of hazard classes and H-statements:	
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

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
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration



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Abbreviations and acronyms:	
OECD	Organisation for Economic Co-operation and Development
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
TRGS	Technical Rules for Hazardous Substances
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

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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.