Synthetic diamond impregnated segments

Safety Data Sheet

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

Revision date: 4/10/2025 Issue date: 4/10/2025 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	Article
Trade name	Synthetic diamond impregnated segments
Product code	BU Diamond
Other means of identification	Blades SP, DS-BT, SPX granite; Discs EQD SPX; connections M14; diamond core bits DD-BH

1.2. Recommended use and restrictions on use

Recommended use	Grinding materials
Restrictions on use	For professional use only

1.3. Supplier

Supplier

Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
US TX 75024 Plano
USA
T +1 9724035800
1-800-879-8000 toll free, F +1 918 254 0522
us-sales@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
FL 9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-power.tools@hilti.com

1.4. 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

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS-US classification
copper	copper bronze, powder / copper, powder	CAS-No.: 7440-50-8	< 60	Not classified
nickel	elemental nickel	CAS-No.: 7440-02-0	<= 10	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372
Chromium	chromium / chromium, metal	CAS-No.: 7440-47-3	<= 1.5	Not classified

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: Rinse eyes with water as a precaution. 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)

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.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) 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 chemical

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

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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	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.
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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Synthetic diamond impregnated segments
No additional information available

copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Copper, as Cu
ACGIH OEL TWA	0.2 mg/m³
Remark (ACGIH)	TLV® Basis: Irr; GI; metal fume fever
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Copper
OSHA PEL TWA	0.1 mg/m³ (Fume (as Cu)) 1 mg/m³ (Dusts and mists (as Cu))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

nickel (7440-02-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nickel, Elemental/Metal, as Ni
ACGIH OEL TWA	1.5 mg/m³ (Inhalable fraction)

nickel (7440-02-0)	
Remark (ACGIH)	TLV® Basis: Dermatitis; pneumoconiosis. Notations: A5 (Not Suspected as a Human Carcinogen)
Regulatory reference	ACGIH 2025
USA - ACGIH - Biological Exposure Indices	
Local name	Nickel and inorganic compounds
BEI	5 µg/l Parameter: Nickel - Medium: urine after exposure to elemental Nickel and poorly soluble compounds - Sampling time: Post-shift at end of workweek - Notations: B 30 µg/l Parameter: Nickel - Medium: urine after exposure to soluble compounds - Sampling time: Post-shift at end of workweek
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Nickel
OSHA PEL TWA	1 mg/m³ metal and insoluble compounds (as Ni) 1 mg/m³ soluble compounds (as Ni)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Chromium (7440-47-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Chromium, Metallic chromium, as Cr(0)
ACGIH OEL TWA	0.5 mg/m³ (Inhalable fraction)
Remark (ACGIH)	TLV® Basis: Resp tract irr
Regulatory reference	ACGIH 2025
USA - ACGIH - Biological Exposure Indices	
Local name	Chromium
BEI	0.7 µg/l Parameter: Total chromium - Medium: urine - Sampling time: End of shift, end of workweek - Notations: Pop
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Chromium
OSHA PEL TWA	0.5 mg/m³ (II) compounds (as Cr) 0.5 mg/m³ (III) compounds (as Cr) 1 mg/m³ metal and insol. salts (as Cr)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

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.

Materials for protective clothing:	
Condition	**Material**
	Flame retardant protective clothing

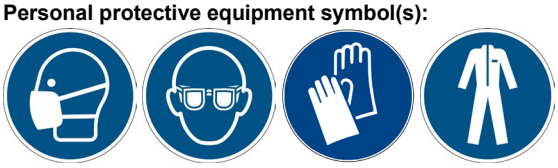
Hand protection:				
Wear leather gloves.				
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**
	leather gloves			

Eye protection:		
Safety glasses		
Type	**Field of application**	**Characteristics**
Safety glasses	Dust	

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:		
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
Colour	Various colours
Odour	odourless
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available

Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

copper (7440-50-8)	
LC50 Inhalation - Rat (Dust/Mist)	> 5.11 mg/l/4h (OECD 436 method)

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)

Chromium (7440-47-3)	
LD50 oral rat	> 5000 mg/kg ((OECD 420 method); <tx:KFT_READ-ACROSS>)
LC50 Inhalation - Rat	> 5.41 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 5.41 mg/l/4h ((OECD 403 method); <tx:KFT_READ-ACROSS>)

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

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

Chromium (7440-47-3)	
IARC group	3 - Not classifiable

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.

Chromium (7440-47-3)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	≥ 0.0044 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard	Not classified
Viscosity, kinematic	No data available
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.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

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)

nickel (7440-02-0)	
NOEC chronic crustacea	0.0037 mg/l (10 d; Ceriodaphnia dubia; (OECD 211 method))

Chromium (7440-47-3)	
EC50 - Crustacea [1]	13.1 – 14.7 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

copper (7440-50-8)	
Persistence and degradability	Not applicable for inorganic substances.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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

Chromium (7440-47-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

copper (7440-50-8)	
Bioaccumulative potential	Bioaccumulation: not applicable.

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

Chromium (7440-47-3)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

copper (7440-50-8)	
Ecology - soil	Adsorbs into the soil.

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

Chromium (7440-47-3)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

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 information: Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	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

DOT
Not regulated

TDG
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. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

copper	CAS-No. 7440-50-8	< 60%
nickel	CAS-No. 7440-02-0	<= 10%
Chromium	CAS-No. 7440-47-3	<= 1.5%

copper (7440-50-8)	
CERCLA RQ	5000 lb

nickel (7440-02-0)	
CERCLA RQ	100 lb

Chromium (7440-47-3)	
CERCLA RQ	5000 lb

15.2. International regulations

nickel (7440-02-0)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

⚠ **WARNING:** This product can expose you to Nickel (Metallic), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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

Revision date 04/10/2025

Full text of 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

Abbreviations and acronyms	
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 disrupting properties
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
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)

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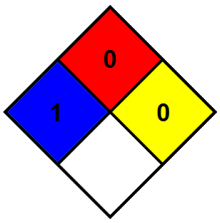
Abbreviations and acronyms	
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

NFPA health hazard	1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating	
Health	1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	0 Minimal Hazard - Materials that will not burn
Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS_US_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.