

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	Cutting discs VB, DC-D SPX, P-S and P-T; Blades SPX metal / PVC / chamfer; Cups SPX

1.2. Recommended use and restrictions on use

Recommended use Restrictions on use Grinding materials 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 <u>us-sales@hilti.com</u>

1.4. Emergency telephone number

Emergency number

product.compliance-power.tools@hilti.com Emergency CONTACT (24-Hour-Number)

Hilti AG

Feldkircherstraße 100

FL 9494 Schaan

T +423 234 2111

Liechtenstein

Department issuing data specification sheet

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



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3.2. Mixtures				
Name	Common Name (Synonyms)	Product identifier	%	GHS-US classification
copper	copper bronze, powder / copper, powder	CAS-No.: 7440-50-8	<= 30	Not classified
nickel	elemental nickel	CAS-No.: 7440-02-0	<= 10	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372
Iron	iron / iron, chip / iron, foil / iron, granule / iron, wire	CAS-No.: 7439-89-6	<= 7	Not classified
Cobalt		CAS-No.: 7440-48-4	<= 5	Acute Tox. 4 (Oral), H302 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 Repr. 1B, H360
Tin	alpha-tin / silver matt / tin	CAS-No.: 7440-31-5	<= 5	Not classified
tungsten carbide		CAS-No.: 12070-12-1	<= 5	Carc. 1B, H350 STOT RE 2, H373
Chromium	chromium / chromium, metal	CAS-No.: 7440-47-3	<= 1	Not classified
	silicon / silicon, containing by weight not less than 99.99% of silicon, crystalline	CAS-No.: 7440-21-3	<= 1	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.



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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 Unsuitable extinguishing media Use extinguishing agent suitable for surrounding fire. Water. Sand. Foam. Carbon dioxide. 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 stora	ige
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/m ³	
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	
Cobalt (7440-48-4)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Cobalt and inorganic compounds as Co	
ACGIH OEL TWA	0.02 mg/m³	
Remark (ACGIH)	Pneumonitis	
Regulatory reference	ACGIH 2025	
USA - ACGIH - Biological Exposure Indices		
Local name	Cobalt and inorganic compounds	
BEI	15 $\mu g/l$ Parameter: Cobalt - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns	
Regulatory reference	ACGIH 2025	
USA - OSHA - Occupational Exposure Limits		
Local name	Cobalt metal, dust, and fume (as Co)	
OSHA PEL TWA	0.1 mg/m ³	
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	



Chromium (7440-47-3)	
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Lim	its
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
Iron (7439-89-6)	
USA - ACGIH - Occupational Exposure Lim	its
ACGIH OEL TWA	10 mg/m ³ as iron oxide dust or fume
nickel (7440-02-0)	
USA - ACGIH - Occupational Exposure Lim	its
Local name	Nickel, Elemental/Metal, as Ni
ACGIH OEL TWA	1.5 mg/m³ (Inhalable fraction)
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 Lim	its
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
Tin (7440-31-5)	
USA - ACGIH - Occupational Exposure Lim	its
Local name	Tin, metal, as Sn
ACGIH OEL TWA	2 mg/m³ (Inhalable fraction)
Remark (ACGIH)	TLV® Basis: Pneumoconiosis
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Lim	its
Local name	Tin
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Tin (7440-31-5)					
OSHA PEL TWA		2 mg/m³ (inorganic compounds (except oxides) (as Sn)) 0.1 mg/m³ (organic compounds (as Sn))			
Regulatory reference (U	S-OSHA)	OSHA Annotated Table Z-1			
Silicon (7440-21-3)					
USA - OSHA - Occupat	tional Exposure Limits				
Local name		Silicon			
OSHA PEL TWA		15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)			
Regulatory reference (U	S-OSHA)	OSHA Annotated Table Z-1	OSHA Annotated Table Z-1		
tungsten carbide (12	2070-12-1)				
USA - ACGIH - Occupa	tional Exposure Limits				
Local name		Hard metals containing Tungst	ten carbide, as C	0	
ACGIH OEL TWA		3 mg/m ³ (Respirable fraction)			
Remark (ACGIH)		TLV® Basis: Pneumonitis. Not	ations: RSEN; A	2 (Suspected Hu	uman Carcinogen)
Regulatory reference		ACGIH 2025			
8.2. Appropriate engi Appropriate engineering o		Ensure good ventilation of the v cleaner; cooling water cleaner (ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas	controls ction measures/Person uipment: k. In case of dust productio		Hilti WMS syste		ystem, vacuum cleaner, air
Appropriate engineering o 8.3. Individual protec Personal protective equ	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment	Hilti WMS syste		ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment	Hilti WMS syste		ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas Materials for protective	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote	Hilti WMS system		ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas Materials for protective	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote	Hilti WMS system		ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protect Personal protective eque Dust formation: dust mas Materials for protective Condition	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote	Hilti WMS system		ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas Materials for protective Condition Hand protection:	controls ction measures/Person uipment: k. In case of dust productio	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote	Hilti WMS system	n).	ystem, vacuum cleaner, air
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas Materials for protective Condition Hand protection: Wear leather gloves.	controls ition measures/Person ipment: k. In case of dust productio e clothing:	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot	Hilti WMS system	n).	
Appropriate engineering of 8.3. Individual protec Personal protective equ Dust formation: dust mas Materials for protective Condition Hand protection: Wear leather gloves.	controls tion measures/Persona uipment: k. In case of dust productio e clothing: Material	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot	Hilti WMS system	n).	
Appropriate engineering of 8.3. Individual protect Personal protective equ Dust formation: dust mas Materials for protective Condition Hand protection: Wear leather gloves. Type	controls tion measures/Persona uipment: k. In case of dust productio e clothing: Material	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot	Hilti WMS system	n).	
Appropriate engineering of 8.3. Individual protect Personal protective equination: dust mass Materials for protective Condition Hand protection: Wear leather gloves. Type Eye protection:	controls tion measures/Persona uipment: k. In case of dust productio e clothing: Material	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot	Hilti WMS system	n).	Penetration
Appropriate engineering of 8.3. Individual protect Personal protective equination: dust massive Materials for protective Condition Hand protection: Wear leather gloves. Type Eye protection: Safety glasses	controls tion measures/Persona uipment: k. In case of dust productio e clothing: Material	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot Permeation	Hilti WMS system	n).	Penetration
Appropriate engineering of 8.3. Individual protect Personal protective equination: dust massing Materials for protective Condition Hand protection: Wear leather gloves. Type Eye protection: Safety glasses Type	controls tion measures/Person ipment: k. In case of dust productio clothing: Material leather gloves	cleaner; cooling water cleaner (al protective equipment n: protective goggles. Gloves. Prote Material Flame retardant protective clot Permeation Field of application	Hilti WMS system	n).	Penetration



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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

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Physical state	Solid
Colour	Various colours
Odour	odourless
Odour threshold	No data available
рН	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



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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 eff	ects
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)
Cobalt (7440-48-4)	
LD50 oral rat	550 mg/kg bodyweight (OECD 425 method)
LD50 oral	550 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 15 day(s))
Chromium (7440-47-3)	
LD50 oral rat	> 5000 mg/kg ((OECD 420 method); <tx:kft_read-across>)</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>)</tx:kft_read-across>
Iron (7439-89-6)	
LD50 oral rat	98600 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 - 28 day(s))
LC50 Inhalation - Rat	> 0.25 mg/l (6 h, Rat, Male, Experimental value, Inhalation (dust), 28 day(s))
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)



Tin (7440-31-5)	
LD50 oral rat	> 2000 mg/kg (OECD 423 method);No mortality with the given dose
LD50 dermal rat	> 2000 mg/kg (OECD 402 method);No mortality with the given dose
LC50 Inhalation - Rat	 > 4.75 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Remarks on results: not determinable due to absence of adverse toxic effects
LC50 Inhalation - Rat (Dust/Mist)	> 4.75 mg/l (OECD 403 method);No mortality with the given dose
Silicon (7440-21-3)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Read-across, Oral, 14 day(s))
tungsten carbide (12070-12-1)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 Inhalation - Rat	> 5.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity	Not classified Not classified Not classified Not classified Not classified
Cobalt (7440-48-4)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
Chromium (7440-47-3)	
IARC group	3 - Not classifiable
nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
tungsten carbide (12070-12-1)	
IARC group	2A - Probably carcinogenic to humans
Reproductive toxicity STOT-single exposure STOT-repeated exposure	Not classified Not classified Not classified
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)



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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.
Tin (7440-31-5)	
NOAEL (subacute, oral, animal/female, 28 days)	> 1000 mg/kg bodyweight/day (OECD 407 method)
tungsten carbide (12070-12-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified
Viscosity, kinematic	No data available
Likely routes of exposure	Inhalation.
Potential adverse human health effects and	Irritation: may cause irritation to the respiratory system.
symptoms	
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.

Cobalt (7440-48-4)		
LC50 - Fish [1]	> 100 (96h; Danio rerio; OECD 203)	
EC50 72h - Algae [1]	0.035 mg/l (Pseudokirchnerella subcapitata)	
ErC50 algae	0.144 mg/l	
NOEC (acute)	3.2 mg/l (48h; Daphnia magna; OECD 202)	
NOEC chronic crustacea	0.00683 mg/l	
Chromium (7440-47-3)		
EC50 - Crustacea [1]	13.1 – 14.7 mg/l Test organisms (species): Daphnia magna	
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))	
Tin (7440-31-5)		
ErC50 algae	> 19.2 μg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Tin)	
LOEC (chronic)	0.2 mg/l (7d; Ceriodaphnia dubia; EPA 1002.0)	



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Silicon (7440-21-3)		
LC50 - Fish [1] > 100 mg/l (Pisces, Read-across)		
tungsten carbide (12070-12-1)		
LC50 - Fish [1]	> 1000 mg/l (96 h; Danio rerio; (OECD 403 method))	
EC50 - Crustacea [1]	> 1000 mg/l (48 h; Daphnia magna; (OECD 202 method))	
EC50 72h - Algae [1]	> 1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesn subspicatus)	
ErC50 algae	≥ 31 mg/l (Tungsten (W); 72 h; Raphidocelis subcapitata; (OECD 201 method))	
NOEC chronic fish	≥ 9.8 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '38 d'	

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	
Cobalt (7440-48-4)		
Persistence and degradability	Biodegradability: not applicable.	
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)	
Iron (7439-89-6)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
nickel (7440-02-0)		
Persistence and degradability	Not applicable for inorganic substances.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
Tin (7440-31-5)		
Persistence and degradability	Not applicable for inorganic substances.	



Tin (7440-31-5)		
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
Silicon (7440-21-3)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
tungsten carbide (12070-12-1)		
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
12.3. Bioaccumulative potential		
copper (7440-50-8)		
Bioaccumulative potential	Bioaccumulation: not applicable.	
Cobalt (7440-48-4)		
BCF - Fish [1]	< 10 (Pisces, Fresh water, Literature study)	
BCF - Other aquatic organisms [1]	< 300 (Invertebrata, Literature study)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Chromium (7440-47-3)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Iron (7439-89-6)		
Bioaccumulative potential	Not bioaccumulative.	
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.	
Tin (7440-31-5)		
Bioaccumulative potential	Not applicable for inorganic substances.	
Silicon (7440-21-3)		
Bioaccumulative potential	Not bioaccumulative.	
tungsten carbide (12070-12-1)		
Bioaccumulative potential	No bioaccumulation data available.	



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12.4. Mobility in soil	
copper (7440-50-8)	
Ecology - soil	Adsorbs into the soil.
Cobalt (7440-48-4)	
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.
Iron (7439-89-6)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for 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.
Tin (7440-31-5)	
Surface tension	Not applicable (water solubility < 1 mg/l)
Ecology - soil	Adsorbs into the soil.
Silicon (7440-21-3)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.
tungsten carbide (12070-12-1)	
Ecology - soil	Adsorbs into the soil.
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



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DOT	TDG	IMDG	ΙΑΤΑ
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	14.3. Transport hazard class(es)		
Not regulated Not regulated Not		Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards	14.5. Environmental hazards		
Not regulated	Not regulated Not regulated		Not regulated
No supplementary information availab	No supplementary information available		

14.6. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

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	<= 30%
Cobalt	CAS-No. 7440-48-4	<= 5%
Chromium	CAS-No. 7440-47-3	<= 1%
nickel	CAS-No. 7440-02-0	<= 10%

copper (7440-50-8)		
CERCLA RQ	5000 lb	
04/11/2025		14/17



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Chromium (7440-4	17-3)			
CERCLA RQ		5000 lb		
nickel (7440-02-0)				
CERCLA RQ		100 lb		
15.2. International	regulations			
Cobalt (7440-48-4)				
	national Agency for Research on (on NTP (National Toxicology Prog			
nickel (7440-02-0)				
	national Agency for Research on (on NTP (National Toxicology Prog			
tungsten carbide	(12070-12-1)			
Listed on IARC (Interr	national Agency for Research on 0	Cancer)		
15.3. US State regu	lations			
	This product can expose you information go to www.P65V	u to Cobalt metal powder, which is known to the State of California to cause cancer. For more Narnings.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	Full text of H-statements	
H302	Harmful if swallowed.	
H317	May cause an allergic skin reaction.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H341	Suspected of causing genetic defects.	
H350	May cause cancer.	
H351	Suspected of causing cancer.	
H360	May damage fertility or the unborn child.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H373	May cause damage to organs through prolonged or repeated exposure.	

Abbreviations and acronyms	
CAS-No.	Chemical Abstract Service number



Abbreviations and acronyms		
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 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	



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Abbreviations and acronyms			
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
WGK	Water Hazard Class		
vPvB	Very Persistent and Very Bioaccumulative		
NFPA health haz	zard 1 - Materia irritation.	s that, under emergency conditions, can cause significant	
NFPA fire hazard		s that will not burn under typical fire conditions, including noncombustible materials such as concrete, stone, and	
NFPA reactivity		that in themselves are normally stable, even under fire	
Hazard Rating			
Health		1 Slight Hazard - Irritation or minor reversible injury possible	
Flammability	0 Minimal I	0 Minimal Hazard - Materials that will not burn	
Physical		lazard - Materials that are normally stable, even under fire conditions, and will NOT vater, 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.