

## Safety Data Sheet

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

Date of issue: 12/21/2015 Revision date: 12/21/2015 Supersedes: 12/15/2015 Version: 1.1

## **SECTION 1: Identification**

#### 1.1. Identification

Product form Article

Name DG-CW, DC-D, DC-TP, DC-UE, DD-X, DS-BB, DS-CP

Product code BU Diamond

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture Cutting of different kinds of materials

#### 1.3. Details of the supplier of the safety data sheet

### Supplier

Hilti, Inc.

Legacy Tower, Suite 1000 75024 Plano - USA

T +1 9724035800

1-800-879-8000 toll free - F +1 918 254 0522

#### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH

Hiltistrasse 6

86916 Kaufering - Deutschland

T +49 8191 906310 - F +49 8191 90176310

anchor.hse@hilti.com

#### 1.4. Emergency telephone number

Emergency number Chem-Trec

Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)

Tel.: 703 527 3887 (Other countries)

+1 918 8723000 1-800-879-8000 toll free

## **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

## **GHS-US** classification

Not classified

## 2.2. Label elements

#### GHS-US labelling

No labelling applicable

#### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

## 3.2. Mixture

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Name	Product identifier	%	GHS-US classification
copper, powder	(CAS No) 7440-50-8	0.1 - 90	Aquatic Acute 1, H400 Aquatic Chronic 3, H412
iron	(CAS No) 7439-89-6	0.1 - 90	Not classified
nickel	(CAS No) 7440-02-0	0.1 - 50	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372
tungsten	(CAS No) 7440-33-7	0.1 - 50	Not classified
cobalt	(CAS No) 7440-48-4	0.1 - 30	Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 Aquatic Chronic 4, H413
tungsten carbide	(CAS No) 12070-12-1	0.1 - 10	Carc. 1B, H350 STOT RE 2, H373
chromium	(CAS No) 7440-47-3	0.1 - 5	Not classified
zinc powder - zinc dust (stabilised)	(CAS No) 7440-66-6	0.1 - 5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Diamond	(CAS No) 7782-40-3	0.1 - 5	Not classified
tin	(CAS No) 7440-31-5	<= 3	Not classified
manganese	(CAS No) 7439-96-5	<= 2	Not classified
molybdenum	(CAS No) 7439-98-7	0.1 - 1	Aquatic Acute 1, H400
phosphorus, red	(CAS No) 7723-14-0	<= 1	Flam. Sol. 1, H228 Aquatic Chronic 3, H412
graphite	(CAS No) 7782-42-5	0.1 - 1	Not classified

Full text of 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, both acute and delayed

Symptoms/injuries after inhalation May cause respiratory irritation.

Symptoms/injuries after eye contact May cause severe irritation.

## 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

Suitable extinguishing media Water. Sand. Foam. Carbon dioxide.
Unsuitable extinguishing media Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard Not flammable.

Reactivity The product is non-reactive under normal conditions of use, storage and transport. Product is

not explosive.

#### 5.3. Advice for firefighters

Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.

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## **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 Scoop solid spill into closing containers.

#### 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 by professional users.

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.

#### 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

-		
copper, powder (74	40-50-8)	
ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (Copper fume; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
iron (7439-89-6)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ as iron oxide dust or fume
tungsten (7440-33-7)		
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³ (Tungsten Metal; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³ (Tungsten Metal; USA; Short time value; TLV - Adopted Value)
nickel (7440-02-0)		
ACGIH	ACGIH TWA (mg/m³)	1.5 mg/m³ (Nickel Elemental; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction)
cobalt (7440-48-4)		
ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	Pneumonitis
OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³

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tin (7440-31-5)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³ (Tin Metal; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
tungsten carbide	(12070-12-1)	
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³ (Tungsten, Insoluble compounds, as W; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³ (Tungsten, Insoluble compounds, as W; USA; Short time value; TLV - Adopted Value)
zinc powder - zinc	c dust (stabilised) (7440-66-6)	
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
chromium (7440-4	47-3)	
ACGIH	ACGIH TWA (mg/m³)	0.5 mg/m³ (Chromium, metal; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
molybdenum (743	39-98-7)	
ACGIH	ACGIH TWA (mg/m³)	3 mg/m³ (Molybdenum Metal; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction; Molybdenum Metal; 10 mg/m³; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction)
manganese (7439	D-96-5)	
ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m³
ACGIH	Remark (ACGIH)	CNS impair; A4
phosphorus, red	(7723-14-0)	
OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³
graphite (7782-42	-5)	
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³ (Graphite (all forms except graphite fibers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)

#### 8.2. Exposure controls

Appropriate engineering controls Personal protective equipment

Ensure good ventilation of the work station.

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





Hand protection Eye protection

Skin and body protection

Respiratory protection

Consumer exposure controls

Other information

Wear leather gloves.

Safety glasses.

Wear suitable protective clothing.

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Avoid contact during pregnancy/while nursing.

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.

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## **SECTION 9: Physical and chemical properties**

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

Physical state Solid

Colour Mixture contains one or more component(s) which have the following colour(s):

Metallic red On exposure to air: turns green Silvery-grey to black Silvery Metallic silvery-grey or silvery-white Metallic grey or red-grey Metallic silvery-white Metallic grey-black Metallic white to

silvery Red to brown Silvery-white to grey Grey Grey to black Light grey Grey-black

Odour There may be no odour warning properties, odour is subjective and inadequate to warn of

overexposure.

No data available

Mixture contains one or more component(s) which have the following odour(s):

Odourless No data available on odour Garlic odour

Odour threshold No data available No data available pΗ Melting point No data available Freezing point No data available No data available Boiling point Flash point No data available No data available Relative evaporation rate (butylacetate=1) Flammability (solid, gas) No data available Explosive limits No data available Explosive properties No data available Oxidising properties No data available Vapour pressure No data available No data available Relative density No data available

Relative vapour density at 20 °C

No data available insoluble in water.

Log Pow

No data available

Decomposition temperature > 400 °C

Viscosity No data available
Viscosity, kinematic No data available
Viscosity, dynamic No data available

#### 9.2. Other information

Auto-ignition temperature

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

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IARC group

## **Diamond impregnated segments**

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## 10.6. Hazardous decomposition products

No additional information available

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Likely routes of exposure Inhalation

Acute toxicity Not classified

iron (7439-89-6)	
LD50 oral rat	30000 mg/kg (Rat)
ATE US (oral)	30000.000 mg/kg bodyweight
tungsten (7440-33-7)	
LC50 inhalation rat (ppm)	> 5.4 ppm/4h (poeder; Rat)
nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
cobalt (7440-48-4)	
LD50 oral rat	> 5000 mg/kg (Rat)
tin (7440-31-5)	
LD50 oral rat	> 2000 mg/kg bodyweight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
zinc powder - zinc dust (stabilised) (74	440-66-6)
LD50 oral rat	> 2000 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Read-across; Equivalent or similar to OECD 402)
manganese (7439-96-5)	
LD50 oral rat	9000 mg/kg (Rat)
ATE US (oral)	9000.000 mg/kg bodyweight
1 1 1/==== 1/4	

9000.000 mg/kg bodyweight
> 10000 mg/kg (Rat)
> 2000 mg/kg (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Experimental value)
Not classified

nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen
cobalt (7440-48-4)	
IARC group	2B - Possibly carcinogenic to humans
tungsten carbide (12070-12-1)	
IARC group	2A - Probably carcinogenic to humans
chromium (7440-47-3)	·

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Reproductive toxicity Not classified Specific target organ toxicity (single exposure) Not classified

Specific target organ toxicity (repeated exposure)

Not classified

Aspiration hazard Not classified

Potential adverse human health effects and

symptoms

Irritation: may cause irritation to the respiratory system.

Symptoms/injuries after inhalation May cause respiratory irritation.

Symptoms/injuries after eye contact May cause severe irritation.

## SECTION 12: Ecological information

#### 12.1. Toxicity

copper, powder (7440-50-8)	
LC50 fish 1	200 μg/l (LC50; 96 h; Salmo gairdneri; Flow-through system; Fresh water)
EC50 Daphnia 1	109 - 798 µg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Weight of evidence)
Threshold limit algae 1	230 μg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Weight of evidence)

zinc powder - zinc dust (stabilised) (7440-66-6)	
LC50 fish 1	0.14 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Zinc ion)
EC50 Daphnia 1	0.07 mg/l (48 h; Daphnia magna; Zinc ion)
LC50 fish 2	0.169 mg/l (96 h; Oncorhynchus mykiss; Zinc ion)
EC50 Daphnia 2	1.833 mg/l (48 h; Daphnia magna; Zinc ion)
ErC50 (algae)	0.15 mg/l
Threshold limit algae 1	0.150 mg/l (72 h; Selenastrum capricornutum; Zinc ion)
Threshold limit algae 2	0.050 mg/l (72 h; Selenastrum capricornutum; Zinc ion)

molybdenum (7439-98-7)	
LC50 fish 1	0.790 mg/l (LC50; 672 h)
phosphorus, red (7723-14-0)	
LC50 fish 1	33.2 mg/l (LC50; 96 h)
EC50 Daphnia 1	10.5 mg/l (EC50; 48 h)
EC50 other aquatic organisms 1	18.3 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
graphite (7782-42-5)	
LC50 fish 1	> 100 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Danio rerio; Static system; Fresh water: Experimental value)

grapriite (1102-42-3)	
LC50 fish 1	> 100 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Danio rerio; Static system; Fresh water; Experimental value)
EC50 Daphnia 1	> 100 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	> 100 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Threshold limit algae 2	> 100 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

## 12.2. Persistence and degradability

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copper, powder (7440-50-8)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
iron (7439-89-6)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
tungsten (7440-33-7)	
Persistence and degradability	Biodegradability: not applicable. Forming sediments in water. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
nickel (7440-02-0)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
cobalt (7440-48-4)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
tin (7440-31-5)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
tungsten carbide (12070-12-1)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
zinc powder - zinc dust (stabilised) (7440-	66-6)
	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Persistence and degradability	Biodogradability: not applicable. No (toot)data on mobility of the education available.
Persistence and degradability Biochemical oxygen demand (BOD)	Not applicable

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zinc powder - zinc dust (stabilised) (7440	D-66-6)
BOD (% of ThOD)	Not applicable
chromium (7440-47-3)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
molybdenum (7439-98-7)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
manganese (7439-96-5)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
phosphorus, red (7723-14-0)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
graphite (7782-42-5)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

## 12.3. Bioaccumulative potential

copper, powder (7440-50-8)			
Bioaccumulative potential	Bioaccumulation: not applicable.		
iron (7439-89-6)	iron (7439-89-6)		
Log Pow	-0.77 (Estimated value)		
tungsten (7440-33-7)			
Log Pow	0.23 (Estimated value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
nickel (7440-02-0)			
Log Pow	-0.57 (Estimated value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
tin (7440-31-5)			
Bioaccumulative potential	No bioaccumulation data available.		
tungsten carbide (12070-12-1)			
Bioaccumulative potential	No bioaccumulation data available.		
zinc powder - zinc dust (stabilised) (7440-66-6)			
Bioaccumulative potential	Bioaccumulation: not applicable.		

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chromium (7440-47-3)			
BCF fish 1	0.0048 (BCF)		
BCF other aquatic organisms 1	0.443 (BCF)		
Bioaccumulative potential	Not bioaccumulative.		
molybdenum (7439-98-7)			
BCF fish 1	260 - 500 (BCF)		
Bioaccumulative potential	No bioaccumulation data available.		
manganese (7439-96-5)	manganese (7439-96-5)		
BCF fish 1	81 (BCF)		
BCF other aquatic organisms 1	300000 (BCF)		
BCF other aquatic organisms 2	125000 (BCF)		
graphite (7782-42-5)			
Bioaccumulative potential	No bioaccumulation data available.		

## 12.4. Mobility in soil

phosphorus, red (7723-14-0)	
Ecology - soil	Not toxic to plants.

#### 12.5. Other adverse effects

Effect on the global warming No known ecological damage caused by this product.

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

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Regional legislation (waste) Disposal must be done according to official regulations.

Waste disposal recommendations Dispose in a safe manner in accordance with local/national regulations. Avoid release to the

environment.

Ecology - waste materials Avoid release to the environment. Hazardous waste due to toxicity.

## **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated for transpor	rt		
14.2. UN proper shipp	oing name		
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazar	d class(es)		
Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	RID
14.5. Environmental hazards			
Dangerous for the environment : No			
No supplementary information available			

#### 14.6. Special precautions for user

- Overland transport
- Transport by sea

No data available

- Air transport

No data available

- Rail transport

Carriage prohibited (RID)

No

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances

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, powder	CAS No 7440-50-8	0.1 - 90%
nickel	CAS No 7440-02-0	0.1 - 50%
cobalt	CAS No 7440-48-4	0.1 - 30%
zinc powder - zinc dust (stabilised)	CAS No 7440-66-6	0.1 - 5%
chromium	CAS No 7440-47-3	0.1 - 5%
manganese	CAS No 7439-96-5	<= 2%
phosphorus, red	CAS No 7723-14-0	<= 1%

copper, powder (7440-50-8)			
Subject to reporting requirements of United States SARA Section 313			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb		

nickel (7440-02-0)		
Subject to reporting requirements of United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb	
cobalt (7440-48-4)		

Subject to reporting requirements of United States SARA Section 313

zinc powder - zinc dust (stabilised) (7440-66-6)		
Not subject to reporing requirements of the United States SARA Section 313		
Subject to reporting requirements of United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's 1000 lb		
List of Lists)		

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chromium (7440-47-3)	
Subject to reporting requirements of United States	S SARA Section 313
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

#### manganese (7439-96-5)

Subject to reporting requirements of United States SARA Section 313

Cabjost to reporting requirements of crimed states of that Costion of the		
phosphorus, red (7723-14-0)		
Not subject to reporing requirements of the United States SARA Section 313 Subject to reporting requirements of United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb	

#### 15.2. International regulations

#### CANADA

No additional information available

#### **EU-Regulations**

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

## **National regulations**

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

## tungsten carbide (12070-12-1)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

nickel (7440-02-0)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	
cobalt (7440-48-4)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

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## Safety Data Sheet

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

#### **SECTION 16: Other information**

Revision date 12/21/2015

Full text of H-statements:

Aquatic Chronic 1  Aquatic Chronic 3  Hazardous to the aquatic environment — Chronic Hazard, Category 1  Aquatic Chronic 3  Hazardous to the aquatic environment — Chronic Hazard, Category 3  Aquatic Chronic 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Carc. 1B  Carc. 2  Carcinogenicity, Category 1B  Carc. 2  Flam. Sol. 1  Flammable solids, Category 2  Flam. Sol. 1  Sensitisation — Respiratory, Category 1  Stin Sens. 1  Sensitisation — Respiratory, Category 1  STOT RE 1  Specific target organ toxicity — Repeated exposure, Category 1  STOT RE 2  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 3  Hazardous to the aquatic environment — Chronic Hazard, Category 3  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 2  Flammable solid.  Hazardous to the aquatic environment — Chronic Hazard, Category 2  Flammable solid.  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Hazardous to the aquatic env	Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 3 Aquatic Chronic 4 Aquatic Chronic Agardous to the aquatic environment — Chronic Hazard, Category 4 Action Chronic 4 Aquatic Chronic 4 Aquatic Chronic 4 Aquatic Chronic Agardous to the aquatic environment — Chronic Hazard, Category 4 Action Chronic Hazard, Category 1B Carcinogenicity, Category 1B Carcinogenicity, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Respiratory, Category 2 Action — Respiratory, Category 1 Action — Respiratory, Category 2 Action — Re	•	,	
Aquatic Chronic 4  Aquatic Chronic 4  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Carc. 1B  Carc. 2  Carcinogenicity, Category 1B  Carc. 2  Flam. Sol. 1  Resp. Sens. 1  Sensitisation — Respiratory, Category 1  Skin Sens. 1  Sensitisation — Skin, Category 1  STOT RE 1  Specific target organ toxicity — Repeated exposure, Category 1  STOT RE 2  Hazardous to the aquatic environment — Chronic Hazard, Category 4  Flammable solids, Category 1  Sensitisation — Respiratory, Category 1  Sensitisation — Skin, Category 1  Specific target organ toxicity — Repeated exposure, Category 1  STOT RE 2  Hazardous to the aquatic environment — Chronic Hazard, Category 2  Flammable solids, Category 1  Sensitisation — Respiratory, Category 1  Specific target organ toxicity — Repeated exposure, Category 2  Hazardous exposure and lergic skin reaction  May cause an allergic skin reaction  May cause allergy or asthma symptoms or breathing difficulties if inhaled  May cause cancer  Hasardous exposure and lergic skin reaction  May cause cancer  Suspected of causing cancer  Causes damage to organs through prolonged or repeated exposure  Hayardous exposure and lergic skin reaction  May cause damage to organs through prolonged or repeated exposure  Hayardous exposure and lergic skin reaction  May cause damage to organs through prolonged or repeated exposure  Hayardous exposure  Hayardous exposure  Hayardous exposure  Hayardous exposure in the aquatic life with long lasting effects  Harmful to aquatic life with long lasting effects	Aquatic Chronic 1	1	
Carc. 1B Carcinogenicity, Category 1B Carc. 2 Carcinogenicity, Category 2 Flam. Sol. 1 Flammable solids, Category 1 Resp. Sens. 1 Sensitisation — Respiratory, Category 1 Skin Sens. 1 Sensitisation — Skin, Category 1 STOT RE 1 Specific target organ toxicity — Repeated exposure, Category 1 STOT RE 2 Specific target organ toxicity — Repeated exposure, Category 2 H228 Flammable solid H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H4112 Harmful to aquatic life with long lasting effects	Aquatic Chronic 3	,	
Carc. 2 Carcinogenicity, Category 2 Flam. Sol. 1 Flammable solids, Category 1 Resp. Sens. 1 Sensitisation — Respiratory, Category 1 Skin Sens. 1 Sensitisation — Skin, Category 1 STOT RE 1 Specific target organ toxicity — Repeated exposure, Category 1 STOT RE 2 Specific target organ toxicity — Repeated exposure, Category 2 H228 Flammable solid H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer Causes damage to organs through prolonged or repeated exposure 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 H4mmful to aquatic life with long lasting effects	Aquatic Chronic 4		
Flam. Sol. 1  Resp. Sens. 1  Sensitisation — Respiratory, Category 1  Skin Sens. 1  Sensitisation — Skin, Category 1  Stort RE 1  Specific target organ toxicity — Repeated exposure, Category 1  STOT RE 2  Specific target organ toxicity — Repeated exposure, Category 2  H228  H317  May cause an allergic skin reaction  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled  H350  May cause cancer  H351  Suspected of causing cancer  H372  Causes damage to organs through prolonged or repeated exposure  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  Harmful to aquatic life with long lasting effects	Carc. 1B	Carcinogenicity, Category 1B	
Resp. Sens. 1 Sensitisation — Respiratory, Category 1 Skin Sens. 1 Sensitisation — Skin, Category 1 STOT RE 1 Specific target organ toxicity — Repeated exposure, Category 1 STOT RE 2 Specific target organ toxicity — Repeated exposure, Category 2 H228 Flammable solid H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H4112 Harmful to aquatic life with long lasting effects	Carc. 2	Carcinogenicity, Category 2	
Skin Sens. 1 Sensitisation — Skin, Category 1 STOT RE 1 Specific target organ toxicity — Repeated exposure, Category 1 STOT RE 2 Specific target organ toxicity — Repeated exposure, Category 2 H228 Flammable solid H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H4rmful to aquatic life with long lasting effects	Flam. Sol. 1	Flammable solids, Category 1	
STOT RE 1 Specific target organ toxicity — Repeated exposure, Category 1 STOT RE 2 Specific target organ toxicity — Repeated exposure, Category 2 Flammable solid H317 May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	Resp. Sens. 1	Sensitisation — Respiratory, Category 1	
STOT RE 2  Specific target organ toxicity — Repeated exposure, Category 2  Flammable solid  H317  May cause an allergic skin reaction  May cause allergy or asthma symptoms or breathing difficulties if inhaled  H350  May cause cancer  H351  Suspected of causing cancer  H372  Causes damage to organs through prolonged or repeated exposure  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  H412  Harmful to aquatic life with long lasting effects	Skin Sens. 1	Sensitisation — Skin, Category 1	
H228 Flammable solid H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1	
H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2	
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	H228	Flammable solid	
H350 May cause cancer H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	H317	May cause an allergic skin reaction	
H351 Suspected of causing cancer H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	H334		
H372 Causes damage to organs through prolonged or repeated exposure 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 H412 Harmful to aquatic life with long lasting effects	H350	May cause cancer	
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 H412 Harmful to aquatic life with long lasting effects	H351	Suspected of causing cancer	
exposure  H400 Very toxic to aquatic life  H410 Very toxic to aquatic life with long lasting effects  H412 Harmful to aquatic life with long lasting effects	H372	Causes damage to organs through prolonged or repeated exposure	
H410 Very toxic to aquatic life with long lasting effects H412 Harmful to aquatic life with long lasting effects	H373		
H412 Harmful to aquatic life with long lasting effects	H400	Very toxic to aquatic life	
	H410	Very toxic to aquatic life with long lasting effects	
	H412	Harmful to aquatic life with long lasting effects	
	H413	May cause long lasting harmful effects to aquatic life	

NFPA health hazard

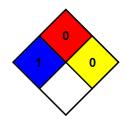
1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard NFPA reactivity

0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

0 - Materials that will not burn.



HMIS III Rating

Health 1 Slight Hazard - Irritation or minor reversible injury possible

0 Minimal Hazard - Materials that will not burn

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

Flammability

Physical

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

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