

SAFETY INFORMATION SHEET

Hardmetal products

Internal No.: 201EN

Issued: 15 May 2017

1: Identification of the article/product and of the company / undertaking

1.1: Product identifier	
Article/Product Name	Sintered hardmetal products containing primarily tungsten carbide with cobalt, nickel and/or iron binder.
1.2: Relevant identified uses of the article and uses advised against	
Identified Uses	Mining Tools, Construction Tools, Round Tools, Metalworking Tools, Metallurgical Products and Inserts.
Uses advised against	Avoid re-shaping or re-grinding finished hardmetal articles without appropriate exposure controls (e.g. ventilation, personal protection equipment). Operations such as cutting, sharpening, or grinding hardmetal tools may produce dusts, which may be inhaled, ingested or come in contact with eyes and skin. Return tools to appropriate locations for reconditioning or recycling services.
1.3: Details of the supplier of the article information data sheet	
Name	<i>Pramet Tools s.r.o.</i>
Address	787 53, Unicovska 2, Sumperk, Ceska republika
Phone	[+420 583 381 111]
E-mail of competent person responsible for the Article Information Data Sheet	<i>sds@sandvik.com</i>
1.4 : Emergency telephone number	
Emergency No.	Not applicable

2: Hazards Identification

WARNING

Fragmentation hazard: Cutting tools and holders may fragment in use. Always wear safety equipment and keep machine guards in place.

Dust and mist hazard: Operations such as grinding, cutting, burning and welding of hardmetal products may produce dust or fumes, which can be inhaled, swallowed or come in contact with the skin and eyes. Use

ventilation control and respiratory protection.

Sensitising hazard: To minimize the risk of an allergic skin reaction when handling solid hardmetal blanks use gloves or in another way avoid direct skin contact.

2.1: Classification of the article	
Classification according to EC 1272/2008:	Not applicable for articles
Classification according to 67/548/EEC:	
2.2: Label elements (according to EC 1272/2008)	
Hazard pictogram(s):	Not applicable for articles
Signal word:	
Hazard Statement(s):	
Precautionary statement(s):	
2.3: Other Hazards	
PBT or vPvB	Not applicable for articles

3: Article Composition

3.1: Information on article constituents

Identification Name	EINECS No.	CAS No.	Weight % Content	Classification CLP
Tungsten Carbide	235-123-0	12070-12-1	>50% Cermets grades: 0 – 20%	Tungsten carbide is not classified under CLP
Cobalt Powder (>99% <1mm). (Respirable fraction ≥0,01% w/w)	231-158-0	7440-48-4	0.3 – 25%	Carc.1B, H350i Eye Irrit. 2, H319 Repr. 2; H361f, Acute Tox. 1, H330 Acute Tox. 4, H302 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Aquatic Acute 1 (M=10), H400 Aquatic Chronic 1, (M=1), H410
Nickel	231-111-4	7440-02-0	1-25%	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317 Aquatic Chronic 3, H412

4: First aid measures

4.1: Description of first aid measures

As sintered hardmetal articles, exposure to high volumes of powder/dust is not anticipated under normal conditions and use. If tool chips, breaks, fragments or is reground/re-sharpen, it may produce exposure to dusts, which may be inhaled, ingested or come in contact with eyes and skin.

Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Inhalation	Remove to fresh air. Seek medical attention if required.
Ingestion	Rinse mouth with water and drink plenty of water afterwards. Seek medical advice if required.
Skin	Remove contaminated clothing. Immediately wash with soap and water and rinse thoroughly. Seek medical attention if required.
General advise	After first aid, get appropriate medical attention.

4.2: Most important symptoms and effects, both acute and delayed

In the case of generation of dust, metal powders or dust may cause mechanical eye and skin irritation. Inhalation of powder or dust may cause mild respiratory tract irritation. Chronic inhalation of hardmetal powder/dust has the potential for causing transient or permanent respiratory disease, including occupational asthma and interstitial lung fibrosis. cHardmetal powders may cause an allergic skin reaction.

4.3: Indication of any immediate medical attention and special treatment needed

None known

5: Firefighting measures

5.1: Extinguishing media

Hardmetal sintered articles as provided are not a fire hazard.

5.2: Special hazards arising from the article use

During normal operation and usage, hardmetal articles are not a fire hazards.

5.3: Advice for firefighters

Not Applicable

6: Accidental release measures

6.1: Personal precautions, protective equipment and emergency procedures

Hardmetal sintered articles as provided do not present hazards that require accidental release measures. Operations such as grinding, cutting, burning and welding of hardmetal products may produce dust or fumes, which can be inhaled, swallowed or come in contact with the skin and eyes. Avoid inhalation and contact with skin and eyes. Re-sharpen tools using appropriate safety and extraction systems to avoid dust exposure. Use personal protective equipment (i.e. gloves, safety goggles, dust respirator) as specified in Section 8 of this article information data sheet. Ventilate area if necessary.

6.2: Environmental precautions

In the case of generation of dust/mist, avoid release into the environment.

6.3: Methods and material for containment and cleaning up

Broken hardmetal tools and articles should be recycled.

6.4: Reference to other sections

See sections 8 and 13 for exposure controls and disposal considerations.

7: Handling and storage

Hardmetal articles as provided do not present hazards requiring precautions for safe storage. Operations such as grinding, cutting, burning and welding of hardmetal products may produce dust or fumes, which can be inhaled, swallowed or come in contact with the skin and eyes. The procedures described below relate to these operations.

7.1: Precautions for safe handling

Under normal operating conditions, the use of hardmetal articles do not require special safety precautions beyond normal safety procedures for handling and using cutting tools, such as safety glasses and gloves. No smoking, eating, or drinking while using hardmetal articles. Wash hands thoroughly after handling. Minimize generation of powder/dust and avoid dispersion of dust in air. Do not shake clothing, rags or other items to remove dust.

7.2: Conditions for safe storage, including any incompatibilities

Hardmetal articles as provided do not present hazards requiring precautions for safe storage.

7.3: Specific end use(s)

Hardmetal articles are used as cutting and machining tools, mining and drilling tools, wear parts.

8: Exposure controls / personal protection

The exposure control parameters listed below are for operations with hardmetal articles that generate dusts or fumes including grinding, cutting, or re-sharpening.

8.1 : Control parameters

Country	For tungsten and insoluble compounds, as tungsten		Cobalt		Nickel	
	8-h Limit Value (mg/m ³)	Short-term Limit Value (mg/m ³)	8-h Limit Value (mg/m ³)	Short-term Limit Value (mg/m ³)	8-h Limit Value (mg/m ³)	Short-term Limit Value (mg/m ³)

ACGIH TLV	5	-	0.005**	-	1.5	-
Austria	5*	10*	0.1	0.4	0.5	2
Belgium	5	10	0.02	-	1	-
Canada (Québec)	5	10	0.02	-	1	-
Denmark	5	10	0.01	0.02	0.05	0.1
Hungary	-	-	0.1	0.4	1	-
Poland	5	-	-	-	0.1	0.1
Spain	5	10	0.02	-	1	-
Sweden	5	-	0.02*	-	0.5	-
Switzerland	5*	-	0.05*	-	0.5	-
USA - NIOSH	5	10 [†]	0.05	-	0.015	-
USA – OSHA	-	-	0.1	-	1.0	-
United Kingdom	5	10	0.1*	-	1.0	-

* Inhalable aerosol; [†]15-minutes- ** Thoracic fraction

8.2: Exposure controls

Appropriate engineering controls:

In the case of dust generation during wet or dry grinding of cutting hardmetal articles, engineering controls may include local ventilation systems with dust filters depending on degree of process automation and containment (e.g. closed vs. open processes).

Individual protection measures:

Eye/face protection Use of safety glasses as appropriate and reasonably necessary.

Skin protection Use of work gloves and work clothes as appropriate and reasonably necessary.

Respiratory protection In the case of dust generation, use of respiratory protection as appropriate and reasonably necessary.

9: Physical and chemical properties

Not applicable for hardmetal articles.

10: Stability and reactivity

10.1: Reactivity

Hardmetal articles are not reactive.

10.2: Chemical stability

Hardmetal articles are chemically stable.

10.3: Possibility of hazardous reactions

Not applicable.

10.4: Conditions to avoid

Avoid re-shape or re-grind finished hardmetal articles. Cutting, sharpening, or grinding hardmetal tools may produce dusts of hazardous substances, which may be inhaled, ingested or come in contact with eyes and skin. Return tools to appropriate locations for reconditioning services. Operations such as grinding, cutting, burning, re-sharpening of such articles may release dusts which may present a fire or explosion hazard under rare favoring conditions of particle size, dispersion, concentration, and strong ignition source.

10.5: Incompatible materials

None known

10.6: Hazardous decomposition products

None known

11: Toxicological information

As sold and under normal conditions of use, hardmetal products and tools do not present inhalation or ingestion hazards. Operations such as grinding, cutting, burning and welding of hardmetal products may produce dust or fumes, which can be inhaled, swallowed or come in contact with the skin and eyes. Uncoated hardmetal products may cause an allergic skin reaction as a result of prolonged skin contact with the product.

The toxicity section described below relate to these operations.

Carcinogenicity: Cobalt metal when inhaled is presumed to have carcinogenic potential for humans largely based on animal evidence. Cobalt metal with tungsten carbide was categorized by IARC as *probably carcinogenic to humans* (Group 2A). The US NTP considers cobalt-tungsten carbide (powders and hardmetals) as *reasonably anticipated to be a human carcinogen*.

STOT- Repeated Exposure: Chronic inhalation has the potential for causing transient or permanent respiratory disease, including occupational asthma and interstitial fibrosis. It is reported that cobalt dust is the most probable cause of such respiratory diseases. Symptoms include productive cough, wheezing, shortness of breath, chest tightness and weight loss. Interstitial fibrosis (lung scarring) can lead to permanent disability. Certain pulmonary conditions may be aggravated by exposure.

12: Ecological information

Hardmetal articles as provided to do not present an environmental hazard.

12.1: Persistence and degradability

Not applicable.

12.2: Bioaccumulative potential

Not applicable.

12.3: Mobility in soil

Not applicable.

12.4: Results of PBT and vPvB assessment

Tungsten carbide, cobalt and nickel are inorganic substances, and therefore the PBT and vPvB assessment is not required.

12.5: Other adverse effects

None known

13: Disposal considerations

Responsibility for proper waste disposal of hardmetal waste/residues rests with the owner of the waste. Owners are encouraged to take advantage of hardmetal recycling programs. Hardmetal sintered scrap and sludges should be sent to an appropriate reclamation facility, if available. If material cannot be sent to a reclamation facility, dispose of all waste product and containers in accordance with local,

state/provincial, federal, and national regulations.

14: Transport information

Hardmetal articles are not classified or regulated

15: Regulatory information

15.1: Safety, health and environmental regulations/legislation specific for the article

EU Regulations: Hardmetal articles do not contain substances of very high concern (SVHC)

National Regulations: None known

15.2: Chemical safety assessment

Chemical safety reports (CSR)/chemical safety assessments (CSA) are not required for articles. CSR/CSAs have been carried out on tungsten carbide, cobalt and nickel.

16: Other information

Full text of Classifications (CLP/GHS)	Eye Irrit. 2, H319 Repr. 2; H361f, Acute Tox. 1, H330 Acute Tox. 4, H302 Carc. 1B, H350i STOT RE 1, H372 Resp. Sens. 1B, H334 Skin Sens.1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Aquatic Chronic 3, H412	Eye irritation, category 2 Reproductive toxicity, category 2 Acute toxicity, category 1 Acute toxicity, category 4 Carcinogenicity, category 1B Specific target organ toxicity — repeated exposure, category 1 Respiratory sensitization, category 1B Skin sensitization, category 1 Aquatic Toxicity (Acute), category 1 Aquatic Toxicity (Chronic), category 1 Aquatic Toxicity (Chronic), category 3
Full text of abbreviated H statements	H302 Harmful if swallowed H330 Fatal if inhaled H350i May cause cancer by inhalation H372 Causes damage to organs through prolonged or repeated exposure H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H317 May cause an allergic skin reaction H319 Causes serious eye irritation H361f Suspected of damaging fertility 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	

Abbreviations:

Carc	Carcinogenic
CAS	Chemical Abstracts Service
Cat	Category
CLP	Classification, Labelling and Packaging

EC	European Commission
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial chemical Substances
EU	European Union
h	Hours
m ³	Cubic meter
mg	Milligram(s)
MS	Member State
NIOSH	National Institute for Occupational Safety and Health
No.	Number
OEL	Occupational Exposure Level
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulative, and Toxic
RE	Repeated Exposure
REACH	Registration, Evaluation, Authorization and Restriction of CHemical substances
Resp	Respiratory
Sens	Sensitiser
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern
vPvB	very Persistent, very Bioaccumulative

End of Safety Information Sheet