

Issued on: 08.2011	Revised on: 04.2014	Revision: 02
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Designation of substance and/or preparation, company name	
Trade name	Palbit Carbide
Use of substance / preparation	Tools for the processing of different materials
Manufacturer / Supplier	Palbit SA/ TMX by Toolmex
Street / POB	P.O. Box No 4, Palhal
Country code / ZIP code / Town	3854-908 Branca Alb.-a-Velha Portugal
Technical information contact	support@toolmex.com
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Emergency information	+1-508-653-8897 / 844-869-8665 (844-TMX-TOOL)

MATERIAL SAFETY DATA SHEET

1 Potential Hazards

Special hazard warnings for people and the environment	Not applicable
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Additional hazard warnings for people and the environment	<p>HSS High Speed Steels</p> <p>The Alloyed Steels of our tools may contain, Carbide, Manganese, Tungsten, Aluminum, Copper, Niobium, Titanium and other substances that are rated as non-hazardous materials, or that are below the threshold value pursuant to the EU directive 1999/45/ or where no recognized limit value applies according to the EU directives. In the form the tools figured under no. 1 are marketed, they are not health hazards if they are inhaled, swallowed or come into contact with the skin. The alloying elements listed under No. 3 are firmly combined in the metallic structure of the workpiece material</p>
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2 Composition / Information on ingredients

Chemical characterization:

Ingredients:

Substance:	CAS – No.	EINECS – No.	Range of concentration (weight amount in %)	Classification
Nickel	7440-02-0	231-111-4	< 0.5%	R 40, R43
Cobalt 1	7440-48-4	231-158-0	< 12%	R 42/43, R53
Chromium	7440-47-3	231-157-5	< 5%	
Molybdenum	7439-98-7	231-107-2	< 10%	
Manganese	7439-96-5	231-105-1	< 1%	
Vanadium	7440-62-2	231-171-1	< 6.5%	
Tungsten	7440-33-7	231-143-9	< 12%	

3 Occupational exposure limits			
Substance	CAS – No.	EINECS – No.	MAK/TRK mg/ m3
Cobalt	7440-48-4	231-158-0	0.1
4 First aid measures			
General information	Workplace hygiene: No eating, no drinking, no smoking in the work area. Thoroughly wash your hands before eating, drinking or smoking		
In case of inhalation	In case of inhalation of aerosols, move affected person into fresh air		
In case of skin contact	Flush with water using mild cleaning agent		
In case of eye contact	In case of eye irritation, rinse with plenty of water. Consult a physician if the irritation persists		
In case of ingestion	Not applicable		
5 Fire-fighting measures			
Suitable extinguishing media	Non-combustible product		
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases	None		
Special protective equipment	Not applicable		
6 Accidental release measures			
Environmental precautions	No special measures required		
Methods for cleaning up	Not applicable		
7 Additional information			
Advice on safe handling	When it comes to thermal treatment and/or mechanical processing, removal by suction at the machine and/or at the workstation; ventilation measures in general. Please observe (welding, cutting and similar methods) and the technical rules for hazardous substances TRGS 900 (threshold limit values in the air, at the workplace)		
Precautions against fire and explosion	No special requirements		

8 Exposure controls / Personal protection	
Occupational exposure limits resp. biological occupational exposure limits	
Exposure routes	
There are no workplace-related limits for the different Steel grades of round tools under item 1; however, limit values are to be observed when it comes to some elements contained in those Steels and/or their compounds. For your guidance, please see the threshold limit values regarding the aerosols created during their application	
Preventive measures	
During the mechanical processing (e.g. milling, turning, boring, drilling, thread cutting operations) aerosols can be produced whose components are subject to the limit value monitoring. Observing the limits shall be ensured by suitable workplace ventilation and extraction systems	
Hand protection	
Glove material:	Dependant on the respective machining process
Coat thickness (mm):	–
Breakthrough time (min):	–
Eye protection	
If required, use safety goggles dependant on the process application	
9 Physical and chemical properties	
Appearance	
Physical state:	Solid
Color:	Silver gray metallic, from matt black to high gloss finished, dependant on the tool design
Odor:	Odorless
Safety relevant data	
Danger of explosion:	No
Lower explosion limit:	–
Upper explosion limit:	–
Melting point/range:	1,500 – 1,600 °C
Density:	8.5 – 9 g/cm ³
Flow time:	
Water solubility:	No
pH value:	Not applicable
Boiling temperature/range:	–
Flash point:	Not applicable
Ignition temperature:	–

10 Stability and reactivity		
Conditions to be avoided		The substance is stable under normal conditions
Substances to be avoided		Avoid contact with strong acids
Hazardous decomposition products		Stable and non-reactive under normal conditions
11 Toxicological information		
Toxicity tests		
Exposure Limits No data available		
Acute toxicity		
Inhalation No data available		
Skin contact According to the occupational health experience, no sensitization is known when handling Steel products as described under number 1, with the usual skin contact		
Ingestion No data available		
Eye contact Can lead to irritant effects on the eyes		
Chronic toxicity		
Inhalation No data available		
12 Ecological information		
Ecotoxicity – Not applicable		
13 Disposal considerations		
13.1	Designation	Alloyed Steel scraps
13.2	Recommendation for unused substance/ preparation	Return to the Steel producer through the scrap trade
13.3	Recommendation for unused substance/scrap/preparation	Return to the Steel producer through the trade
13.4	Disposal of packaging materials	According to the legal requirements
Waste codes according to the waste catalogue ordinance (AVV)		
12 01 01	Iron filings and turning chips	

14 Transport information			
Land transport ADR / RID			
Classification: No dangerous transportation good pursuant to the regulations on carriage of dangerous goods			
Class:	–	Hazard number:	–
UN-No:	–	Classification code:	–
15 Regulatory information			
Chemical safety assessment			
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Labeling according to EEC regulations RL 67/548			
The tools marketed in solid form, are no health or environment hazard due to their physiochemical properties. Therefore, they are not subject to the labeling requirements according to the guidelines 1999/45/EG and 67/548/EEC.			
No hazard(ous) components for labeling:			
R-phrases:	40:	Suspected of causing cancer	
	42/43:	Possible sensitization due to inhalation and skin contact	
	43:	Possible sensitization due to skin contact	
	53:	Possible detrimental effects on waters, in the long run	
S-phrases:	22:	Avoid inhaling dust	
	24:	Avoid skin contact	
	36:	Suitable protective clothing is required at work	
	37:	Wear suitable protection gloves	
	61:	Any release to the environment must be prevented	
		Ask for special instructions/consult the safety data sheet	
Explanation			
The information given in the present material safety data sheet is based on our current knowledge and experience. The material safety data sheet describes the products in terms of safety requirements. The information is no quality assurance			
National regulations			
Water hazard class			
Class:	WGK 0 as solid		
Technical instructions Air			
Sec.5.2.2, class II			
Hazardous incident regulations			
Not listed in the annexes			
Solvent regulations (31)			
Employment restrictions: None			

16 Additional information	
Applicable EC guidelines	
Guidelines 91/155/EEC	
Restrictions on use, recommended by the manufacturer: –	
R-phrases referred to in the sections 2 and 3: –	
17 Other information / US	
<p>Users Responsibilities This Material Safety Data Sheet provides information consistent with recommended applications of these products and anticipated activities involving the product. It is the user's responsibility to identify and protect against health and safety hazards presented by modification of cemented Carbide powders and products after manufacture. Individuals handling cemented Carbide powders should be informed of all relevant hazards and recommended safety precautions, and should have access to the information contained in this MSDS</p>	
<p>Disclaimer The information contained herein is based upon data provided by manufacturers and suppliers of raw materials used in the manufacture of cemented Carbide powders. The information is offered in good faith as accurate and correct, but no representations, guarantees, or warranties of any kind are made as to its accuracy or completeness, suitability for particular applications, hazards connected with the use of the powder, or the results to be obtained from the use thereof. User assumes all risk and liability of any use or handling of any material beyond Toolmex Industrial Solutions control. Variations in methods, conditions, equipment used to store, handle, or process the material, and hazards connected with the use of the powder are solely the responsibility of the user and remain at its sole discretion</p> <p>This MSDS is intended to be used solely for the purpose of satisfying informational requests made pursuant to Title 29 of the Code of Federal Regulations, Section 1910.1200 et seq. It is not intended to pre-empt, replace, or expand the terms contained in Toolmex Industrial Solutions Conditions of Sale. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user, and the user has the responsibility to provide a safe workplace, to examine all aspects of its operation, and to determine if or where precautions, in addition to those described herein, are required. This information may not be valid for these powders when manufactured with alternate materials meeting the special requirements of a particular user</p>	
<p>Company compiling the data sheet:</p>	<p>Department – Toolmex Sales and Marketing Toolmex QA Lab Toolmex Industrial Solutions 34 Talbot Road, Northborough, MA 01532 +1 508 653 8897 / 844-869-8665 (844-TMX-TOOL) support@toolmex.com</p>