



# MATERIAL SAFETY DATA SHEET

PART NUMBER 10 15 60

## SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

SUPPLIER: METPREP LTD.  
CURRIERS CLOSE  
CHARTER AVENUE  
COVENTRY CV4 8AW

TELEPHONE: 024 7642 1222  
FAX: 024 7642 1192

PRODUCT: Diamond Cut-Off Wheel (Cubic Boron Nitride)

## SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num
Cubic Boron Nitride (CBN)	10043-11-5	0 - 1 by weight	233-136-6
Tin	7440-31-5	1 - 5 by weight	231-141-8
Zinc oxide	1314-13-2	5 - 10 by weight	215-222-5
Copper	7440-50-8	10 - 30 by weight	231-159-6
Nickel	7440-02-0	1 - 5 by weight	231-111-4
Tungsten	7440-33-7	5 -10 by weight	231-143-9
Chromium	7440-47- 3	5 - 10 by weight	231-157-5
Lead	7439-92-1	0 – 1 by weight	231-100-4
Cobalt	7440-48-4	5 – 10 by weight	231-158-0
Iron	7439-89-6	30 – 60 by weight	231-096-4

## SECTION 3 SUBSTANCE HAZARD IDENTIFICATION

Potential Health Effects:

Eye: Dust may cause slight irritation

Skin: Dust from this product may cause temporary mechanical irritation.

Inhalation: Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract.

Ingestion: Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Chronic Health Effects: Chronic health effects are not expected as long as good hygiene and proper safety precautions are practised.

## SECTION 4 FIRST AID MEASURES (SYMPTOMS)



Eye Contact	Immediately flush eyes with plenty of water for at least 15 to 20 min. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention, if irritation or symptoms of over-exposure persists.
Skin contact:	Immediately wash skin with soap and plenty of water. Get medical attention iff irritation develops or persists.
Inhalation:	If dust from cutting or drilling is inhaled, remove the affected person To fresh air. If symptoms perist, get medical attention.
Ingestion:	Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to make sure intestinal blockage does not occur. If symptoms persist, call a physician.
Note to Physicians:	No information available.

Revision: 21.04.2015

## **SECTION 5 FIRE FIGHTING MEASURES**

Flammable Properties:	Non Flammable.
Flash Point:	Does not apply.
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	Not available.
Upper Flammable/Explosive Limit:	Not available.
Extinguishing Media:	Use any extinguishing media appropriate for the surrounding fires.
Unsuitable Media:	None.
Protective Equipment:	As in any fire, wear self-contained breathing apparatus Pressure-demand, MSHA/NIOSH (approved or Equivalent) and full protective gear.
NFPA Ratings:	
NFPA Health:	1
NFPA Flammability	0
NFPA Reactivity	1
NFPA Other:	

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

Revision: 21.04.2016



Methods for containment:

Containment for this material should not be necessary.

Methods for cleanup:

Shovel or sweep up for re-use or disposal. Avoid creating dusty conditions. Evaluate residue to determine if it is a hazardous waste by characteristic. Dispose of in accordance with Local, State, Federal and Provincial regulations.

## **SECTION 7**

## **HANDLING AND STORAGE**

Handling:

Always **HANDLE AND STORE** wheels in a **CAREFUL** manner.  
Always **VISUALLY INSPECT** all wheels before mounting.  
Always **CHECK MACHINE SPEED** against the established maximum safe operating speed **MARKED ON THE WHEEL**.

Storage:

No special storage conditions required.

Hygiene Practices:

Wear suitable gloves and eye/face protection.

## **SECTION 8**

## **EXPOSURE CONTROL/PERSONAL PROTECTION**

Engineering Controls:

General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below Occupational exposure limits.

Eye/Face Protection:

Always **WEAR SAFETY GLASSES** or some type of eye protection when grinding.

Skin Protection Description:

Protective gloves.  
Long sleeved shirt and long pants.

Respiratory Protection:

When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators. A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended.

Other Protective:

Use of this product may create elevated sound levels. Hearing protection should be worn where required (see OSHA 29 CFR 1910.134 and other applicable regulations).

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety Practice. Remove and wash contaminated clothing before re-use.  
Avoid getting dust into boots and gloves through wrist bands And pant tucks.



## EXPOSURE GUIDELINES

Ingredient	Guideline OSHA	Guideline ACGIH	Quebec Canada	Ontario Canada	Alberta Canada
Tin	PEL-TWA: 2 mg/m <sup>3</sup>	TLV-TWA: 2 mg/m <sup>3</sup>	VEMP-TWA: 2 mg/m <sup>3</sup>		OEL-TWA: 2 mg/m <sup>3</sup>
Zinc oxide	PEL-TWA: 15 mg/m <sup>3</sup> Total particulate/dust (T) PEL-TWA: 5 mg/m <sup>3</sup> Respirable fraction (R) PEL-TWA: 5 mg/m <sup>3</sup>	TLV-TWA: 2 mg/m <sup>3</sup> Respirable fraction (R) TLV-STEL: 10 mg/m <sup>3</sup> Respirable fraction (R)	VEMP-TWA: 10 mg/m <sup>3</sup> Total particulate/dust (T) VEMP-TWA 5mg/m <sup>3</sup>	OEL-TWAEV: 2mg/m <sup>3</sup> Respirable fraction (R) OEL-TWAEV: 10 mg/m <sup>3</sup> Total particulate/dust (T)	OEL-TWA: 10mg/m <sup>3</sup> OEL-TWA: 5 mg/m <sup>3</sup> OEL-STEL 10 mg/m <sup>3</sup>
Copper	TLV-TWA: 1 mg/m <sup>3</sup> (Dusts and/or mists as Cu) TLV-TWA: 0.1 mg/m <sup>3</sup> (Fume as Cu)	TVL-TWA: 1 mg/m <sup>3</sup> (Dusts and/or mists as Cu) TLV-TWA: 0.2 mg/m <sup>3</sup> (Fume as Cu)	VEMP-TWA: 1 mg/m <sup>3</sup> VEMP-TWA: 0.2 mg/m <sup>3</sup>		OELTWA: 1 mg/m <sup>3</sup> OELTWA: 0.2 mg/m <sup>3</sup>
Nickel	PEL-TWA: 1 mg/m <sup>3</sup> PEL-TWA: 1 mg/m <sup>3</sup> PEL-TWA: 1 mg/m <sup>3</sup>	TLV-TWA: 1.5 mg/m <sup>3</sup> Inhalable fraction (I) TLV-TWA: 0.2 mg/m <sup>3</sup> Inhalable fraction (I) TLV-TWA: 0.1 mg/m <sup>3</sup> Inhalable fraction (I)	VEMP-TWA: 1 mg/m <sup>3</sup> VMP-TWA: 1 mg/m <sup>3</sup> VEMP-TWA: 0.1 mg/m <sup>3</sup>	OEL-TWAEV: 1mg/m <sup>3</sup> Inhalable fraction (I) OEL-TWAEV: 0.2 mg/m <sup>3</sup> Inhalable fraction (I)	OELTWA: 1 mg/m <sup>3</sup> OEL-TWA: 0.2mg/m <sup>3</sup> OEL-TWA: 0.1mg/m <sup>3</sup>
Tungsten		TLV-TWA: 5 mg/m <sup>3</sup> TLV-TWA: 5 mg/m <sup>3</sup> TLV-TWA: 1 mg/m <sup>3</sup> TLV-STEL: 10 mg/m <sup>3</sup> TLV-STEL: 10mg/m <sup>3</sup> TLV-STEL: 3 mg/m <sup>3</sup>	VEMP-TWA: 5 mg/m <sup>3</sup> VEMP-TWA: 1 mg/m <sup>3</sup> VEMP-STEL: 10 mg/m <sup>3</sup> VEMP STEL: 3 mg/m <sup>3</sup>		OEL_TWA: 5 mg/m <sup>3</sup> OEL-TWA: 5 mg/m <sup>3</sup> OEL-TWA: 1 mg/m <sup>3</sup> OEL-STEL: 10 mg/m <sup>3</sup> OEL-STEL: 10mg/m <sup>3</sup> OEL-STEL: 3 mg/m <sup>3</sup>
Chromium	PEL-TWA: 1 mg/m <sup>3</sup> as Cr metal PEL-TWA: 0.5 mg/m <sup>3</sup> as Cr (III) PEL-TWA: 0.005 mg/m <sup>3</sup> as Cr (VI)	TLV-TWA: 0.5mg/m <sup>3</sup> as Cr metal TLV-TWA: 0.5 mg/m <sup>3</sup> As Cr (III) TLV-TWA 0.01 mg/m <sup>3</sup> asCr (VI)	VEMP-TWA: 0.5 mg/m <sup>3</sup> VEMP-TWA: 0.01 mg/m <sup>3</sup> VEMP-TWA 0.05 mg/m <sup>3</sup> Sensitizer: Sen Sensitizer: Sen	OEL-TWAEV: 0.01 mg/m <sup>3</sup>	OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA 0.01 mg/m <sup>3</sup> OEL-STEL: 1.5mg/m <sup>3</sup> OEL-STEL: 1.5mg/m <sup>3</sup>
Lead	PEL-TWA: 0.05 mg/m <sup>3</sup>	TLV-TWA: 0.05 mg/m <sup>3</sup>	VEMP-TWA: 0.15 mg/m <sup>3</sup>	OEL-TWAEV: 0.05 mg/m <sup>3</sup>	OEL-TWA: 0.05 mg/m <sup>3</sup>
Cobalt	PEL-TWA: 0.1 mg/m <sup>3</sup>	TLV-TWA: 0.02 mg/m <sup>3</sup> TLV-TWA: 0.02 mg/m <sup>3</sup>	VEMP-TWA: 0.02 mg/m <sup>3</sup> VEMP-TWA: 0.02 mg/m <sup>3</sup>	OEL-TWAEV: 0.02 mg/m <sup>3</sup>	OEL-TWA: 0.05 mg/m <sup>3</sup> OEL-TWA: 0.05 mg/m <sup>3</sup>
Iron				OEL-TWAEV: 5 mg/m <sup>3</sup>	
<b>Ingredient</b>	<b>Mexico</b>	<b>British Columbia Canada</b>			
Tin	LMPE-PPT: 2 mg/m <sup>3</sup> LMPE-CT: 4 mg/m <sup>3</sup>	OEL-TWA: 2 mg/m <sup>3</sup>			
Zinc oxide	LMPE-PPT: 10 mg/m <sup>3</sup> LMPE-PPT: 5 mg/m <sup>3</sup> LMPE-CT: 10mg/m <sup>3</sup>	OEL-TWA: 2 mg/m <sup>3</sup> Respirable fraction (R) OEL-STEL: 10 mg/m <sup>3</sup> Respirable fraction (R)			
Copper	LMPE-PPT 1 mg/m <sup>3</sup> LMPE-PPT: 0.2 mg/m <sup>3</sup> LMPE-CT: 2 mg/m <sup>3</sup> LMPE-CT: 2 mg/m <sup>3</sup>	OEL-TWA: 1 mg/m <sup>3</sup> OEL-TWA: 0.2 mg/m <sup>3</sup>			
Nickel	LMPE-PPT: 1 mg/m <sup>3</sup> LMPE-PPT 0.1 mg/m <sup>3</sup> LMPE-CT: 0.3 mg/m <sup>3</sup>	OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA: 0.05 mg/m <sup>3</sup> OEL-TWA: 0.05mg/m <sup>3</sup>			



Tungsten	LMPE-PPT: 5 mg/m <sup>3</sup> LMPE-PPT: 1 mg/m <sup>3</sup> LMPE-CT: 10 mg/m <sup>3</sup> LMPE-CT: 3 mg/m <sup>3</sup>	OEL-TWA: 5 mg/m <sup>3</sup> OEL-TWA: 5 mg/m <sup>3</sup> OEL-TWA: 1 mg/m <sup>3</sup> OEL-STEL: 10mg/m <sup>3</sup> OEL-STEL: 10mg/m <sup>3</sup> OEL-STEL: 3mg/m <sup>3</sup>			
Chromium	LMPE-PPT: 0.5 mg/m <sup>3</sup> LMPE-PPT: 0.5 mg/m <sup>3</sup> LMPE-PPT: 0.01 mg/m <sup>3</sup> LMPE-PPT: 0.05 mg/m <sup>3</sup> LMPE-PPT: 0.01 mg/m <sup>3</sup> LMPE-PPT: 0.05 mg/m <sup>3</sup>	OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA: 0.5 mg/m <sup>3</sup> OEL-TWA: 0.1 mg/m <sup>3</sup> OEL-TWA: 0.2 mg/m <sup>3</sup> OEL-Ceiling/Peak: 0.1 mg/m <sup>3</sup>			
Lead	LMPE-PPT: 0.15 mg/m <sup>3</sup>	OEL-TWA: 0.05 mg/m <sup>3</sup> OEL-TWA: 0.05 mg/m <sup>3</sup>			
Cobalt	LMPE-PPT: 0.1 mg/m <sup>3</sup>	OEL-TWA: 0.02 mg/m <sup>3</sup> OEL-TWA: 0.02 mg/m <sup>3</sup>			

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance: Solid article

Odor: Odorless

Flash Point: Does not apply

Auto Ignition Temperature: Not determined

## SECTION 10 STABILITY AND REACTIVITY PROPERTIES

Chemical Stability: Stable under normal conditions

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Keep away from heat, sparks, or open flame

Special Decomposition Products: In use, dust and decomposing odors may be generated. In most cases, the material removed from the workplace will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.

**SECTION 11****TOXICOLOGICAL INFORMATION**

Acute Toxicity: This product has not been tested for its toxicity

**Nickel:**

ACGIH: A5 – Not Suspected as a Human Carcinogen As Ni Element.

NIOSH: NIOSH carcinogen

OSHA: No Data

IARC: Group 2B – Possibly carcinogenic to humans.

NTP: RAC – Reasonably anticipated to be a human carcinogen.

**Cubic Boron Nitride (CBN)**

RTECS Number ED7850000

**Tin:**

RTECS Number: XP7320000

**Zinc oxide:**

RTECS Number: ZH48170000

**Copper:**

RTECS Number: GL7440000

**Nickel:**

RTECS Number: QR6555000

**Tungsten:**

RTECS Y07175000

Eye: Eye – Rabbit Standard Draize test : 500 mg/24H (RTECS)

Skin: Administration onto the skin – Rabbit Standard Draize test 500 mg/24H (RTECS)



**Chromium:**

RTECS Number: GB4200000

**Lead:**

RTECS Number: OF7525000

**Cobalt :**

RTECS Number: GG0375000

**Iron:**

RTEC Number: NO8225000

**SECTION 12**

**ECOLOGICAL INFORMATION**

Biodegradation In harsh environments, metal bonded products will decay similar to their metallic components.

**SECTION 13**

**DISPOSAL CONSIDERATIONS**

Waste Disposal Use standard landfill methods consistent with applicable Federal, State, Provincial and local laws.

**SECTION 14**

**TRANSPORT INFORMATION**

DOT Shipping Name: Not regulated as hazardous material for transportation  
DOT UN Number: Not regulated as hazardous material for transportation  
IATA Shipping Name: Not regulated as hazardous material for transportation  
Canadian Shipping Name: This product is NOT Regulated under the Transportation of Dangerous Goods Act. (CAN)



**Inventory Status**

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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	Canada DSL	TSCA Inventory Status			
Cubic Boron Nitride (CBN)	Listed	Listed			
Tin	Listed	Listed			
Zinc oxide	Listed	Listed			
Copper	Listed	Listed			
Nickel	Listed	Listed			
Tungsten	Listed	Listed			
Chromium	Listed	Listed			
Lead	Listed	Listed			
Cobalt	Listed	Listed			
Iron	Listed	Listed			

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information Required by the Controlled Products Regulations.

**Tin:**

Canada IDL: Identified under the Candian Hazardous Products Act Ingredient Disclosure List:  
0.1% 1571 (804)

**Zinc oxide:**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:  
0.1% 1717 (1326)

Section 313: EPCRA – 40 CFR Part 373 – (SARA Title III) Section 313 Listed Chemical

**Copper:**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:  
0.1% 433(578)

Section 313: EPCRA – 40 CFR Part 373 – (SARA Title III) Section 313 Listed Chemical.

**Nickel:**

**Canada IDL:** Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:  
0.1% 1126 (1193)

CA PROP 65: Listed: cancer

Section 313: EPCRA – 40 CFR Part 372 – (SARA Title III) Section 313 Listed Chemical.

**Tungsten:**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:  
0.1% 1664(1703)





**Chromium:**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:  
0.1%399(561)

Section 313: EPCRA – 40 CFR Part 373 – (SARA Title III) Section 313 Listed Chemical.

**Lead :**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredients Disclosure List:  
0.1%937(1435)

Section 313: EPCRA – 40 CFR Part 372 – (SARA Title III) Section 313 Listed Chemical.

**Cobalt:**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%417(566)

CA PROP 65: Listed: cancer

Section 313: EPCRA – 40 – CFR Part 373 – (SARA Title III) Section 313 Listed Chemical

**Cubic Boron Nitride (CBN):**

EC Number: 233-136-6

**Tin :**

EC Number 231-141-8

**Zinc oxide :**

EC Number : 215-222-5

**Copper :**

EC Number: 231-159-6

**Nickel:**

EC Number 231-111-4

**Tungsten:**

EC Number 231-143-9

**Chromium:**

EC Number 231-157-5



**Lead:**

EC Number 231-100-4

**Cobalt:**

EC Number 231-158-0

**Iron:**

EC Number 231-096-4

**State Right To Know**

	<b>RI</b>	<b>NY</b>	<b>MN</b>	<b>MI</b>	<b>IL</b>
Copper				Listed	
Nickel	Listed	Listed	Listed		Listed

	<b>PA</b>	<b>MA</b>	<b>NJ</b>		
Tin	Listed	Listed	Listed : NJ Hazardous List; Substance Number: 1858		
Zinc oxide	Listed	Listed			
Copper	Listed	Listed Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List; Substance Number: 0528		
Nickel	Listed	Listed Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List; Substance Number: 1341		
Tungsten	Listed	Listed			
Chromium	Listed	Listed: Massachusetts Oil And Hazardous List	Listed: NJ Hazardous List; Substance Number: 0432		
Lead	Listed	Listed: Massachusetts Oil And Hazardous List	Listed: NJ Hazardous List; Substance Number: 1096		
Cobalt	Listed	Listeted: Massachusetts Oil And Hazardous List	Listed: NJ Hazardous List; Substance Number : 0520		



SECTION 16: ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard	1
HMIS Fire Hazard	0
HMIS Reactivity	0
HMIS Personal Protection	X
SDS Creation Date:	July 27, 2011
SDS Revision Date:	July 01, 2013