



MATERIAL SAFETY DATA SHEET

PART NUMBER 10 15 56

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 Low Concentration

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num
Nick e l	7440-02-0	1 - 5 by we ight	231-111-4
Tungste n	7440-33-7	5 - 10 by we ight	231-143-9
Chrom ium	7440-47-3	1 - 5 by we ight	231-157-5
Le a d	7439-92-1	0 - 1 by we ight	231-100-4
Coba lt	7440-48-4	5 - 10 by we ight	231-158-0
Diam ond	7782-40-3	<= 1 by we ight	
Iron	7439-89-6	30 - 60 by we ight	231-096-4
Tin	7440-31-5	1 - 5 by we ight	231-141-8
Zinc ox ide	1314-13-2	5 - 10 by we ight	215-222-5
Coppe r	7440-50-8	10 - 30 by we ight	231-159-6

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.

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

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
Nickel	PEL-TW A: 1 m g/m ³ PEL-TW A: 1 m g/m ³ PEL-TW A: 1 m g/m ³	TLV-TW A: 1.5 m g/m ³ Inhalable fraction (I) TLV-TW A: 0.2 m g/m ³ Inhalable fraction (I) TLV-TW A: 0.1 m g/m ³ Inhalable fraction (I)	VEMP-TW A: 1 m g/m ³ VEMP-TW A: 1 m g/m ³ VEMP-TW A: 0.1 m g/m ³	O EL-TW AEV: 1 m g/m ³ Inhalable fraction (I) O EL-TW AEV: 0.2 m g/m ³ Inhalable fraction (I)	O EL-TW A: 1 m g/m ³ O EL-TW A: 0.2 m g/m ³ O EL-TW A: 0.1 m g/m ³
Tungsten		TLV-TW A: 5 m g/m ³ TLV-TW A: 5 m g/m ³ TLV-TW A: 1 m g/m ³ TLV-STEL: 10 m g/m ³ TLV-STEL: 10 m g/m ³ TLV-STEL: 3 m g/m ³	VEMP-TW A: 5 m g/m ³ VEMP-TW A: 1 m g/m ³ VEMP-STEL: 10 m g/m ³ VEMP-STEL: 3 m g/m ³		O EL-TW A: 5 m g/m ³ O EL-TW A: 5 m g/m ³ O EL-TW A: 1 m g/m ³ O EL-STEL: 10 m g/m ³ O EL-STEL: 10 m g/m ³ O EL-STEL: 3 m g/m ³
Chromium	PEL-TW A: 1 m g/m ³ as Chromium PEL-TW A: 0.5 m g/m ³ as Cr(III) PEL-TW A: 0.005 m g/m ³ as Cr (VI)	TLV-TW A: 0.5 m g/m ³ as Chromium TLV-TW A: 0.5 m g/m ³ as Cr (III) TLV-TW A: 0.01 m g/m ³ as Cr (VI)	VEMP-TW A: 0.5 m g/m ³ VEMP-TW A: 0.01 m g/m ³ VEMP-TW A: 0.05 m g/m ³ Sensitizer: Sensitizer: Sensitizer:	O EL-TW AEV: 0.01 m g/m ³	O EL-TW A: 0.5 m g/m ³ O EL-TW A: 0.5 m g/m ³ O EL-TW A: 0.5 m g/m ³ O EL-TW A: 0.01 m g/m ³ O EL-TW A: 0.05 m g/m ³ O EL-STEL: 1.5 m g/m ³ O EL-STEL: 1.5 m g/m ³
Lead	PEL-TW A: 0.05 m g/m ³	TLV-TW A: 0.05 m g/m ³	VEMP-TW A: 0.15 m g/m ³	O EL-TW AEV: 0.05 m g/m ³	O EL-TW A: 0.05 m g/m ³
Cobalt	PEL-TW A: 0.1 m g/m ³	TLV-TW A: 0.02 m g/m ³ TLV-TW A: 0.02 m g/m ³	VEMP-TW A: 0.02 m g/m ³ VEMP-TW A: 0.02 m g/m ³	O EL-TW AEV: 0.02 m g/m ³	O EL-TW A: 0.05 m g/m ³ O EL-TW A: 0.05 m g/m ³
Iron				O EL-TW AEV: 5 m g/m ³	
Tin	PEL-TW A: 2 m g/m ³	TLV-TW A: 2 m g/m ³	VEMP-TW A: 2 m g/m ³		
Zinc oxide	PEL-TW A: 15 m g/m ³ Total particulate/dust (T) PEL-TW A: 5 m g/m ³ Respirable fraction (R) PEL-TW A: 5 m g/m ³	TLV-TW A: 2 m g/m ³ Respirable fraction (R) TLV-STEL: 10 m g/m ³ Respirable fraction (R)	VEMP-TW A: 10 m g/m ³ Total particulate/dust (T) VEMP-TW A: 5 m g/m ³	O EL-TW AEV: 2 m g/m ³ Respirable fraction (R) O EL-TW AEV: 10 m g/m ³ Total particulate/dust (T)	O EL-TW A: 10 m g/m ³ O EL-TW A: 5 m g/m ³ O EL-STEL: 10 m g/m ³
Copper	TLV-TW A: 1 m g/m ³ (Dusts and/or mists as Cu) TLV-TW A: 0.1 m g/m ³ (Fume as Cu)	TLV-TW A: 1 m g/m ³ (Dusts and/or mists as Cu) TLV-TW A: 0.2 m g/m ³ (Fume as Cu)	VEMP-TW A: 1 m g/m ³ VEMP-TW A: 0.2 m g/m ³		O EL-TW A: 1 m g/m ³ O EL-TW A: 0.2 m g/m ³
Ingredient	Mexico	British Columbia Canada			
Nickel	LMPE-PPT: 1 m g/m ³ LMPE-PPT: 0.1 m g/m ³ LMPE-C T: 0.3 m g/m ³	O EL-TW A: 0.05 m g/m ³ O EL-TW A: 0.05 m g/m ³ O EL-TW A: 0.05 m g/m ³			
Tungsten	LMPE-PPT: 5 m g/m ³ LMPE-PPT: 1 m g/m ³ LMPE-C T: 10 m g/m ³ LMPE-C T: 3 m g/m ³	O EL-TW A: 5 m g/m ³ O EL-TW A: 5 m g/m ³ O EL-TW A: 1 m g/m ³ O EL-STEL: 10 m g/m ³ O EL-STEL: 10 m g/m ³ O EL-STEL: 3 m g/m ³			
Chromium	LMPE-PPT: 0.5 m g/m ³ LMPE-PPT: 0.5 m g/m ³ LMPE-PPT: 0.01 m g/m ³ LMPE-PPT: 0.05 m g/m ³ LMPE-PPT: 0.01 m g/m ³ LMPE-PPT: 0.05 m g/m ³	O EL-TW A: 0.5 m g/m ³ O EL-TW A: 0.5 m g/m ³ O EL-TW A: 0.01 m g/m ³ O EL-TW A: 0.02 m g/m ³ O EL-Ceiling/Peak: 0.1 m g/m ³			
Lead	LMPE-PPT: 0.15 m g/m ³	O EL-TW A: 0.05 m g/m ³ O EL-TW A: 0.05 m g/m ³			
Cobalt	LMPE-PPT: 0.1 m g/m ³	O EL-TW A: 0.02 m g/m ³ O EL-TW A: 0.02 m g/m ³			
Tin	LMPE-PPT: 2 m g/m ³ LMPE-C T: 4 m g/m ³	O EL-TW A: 2 m g/m ³			
Zinc oxide	LMPE-PPT: 10 m g/m ³ LMPE-PPT: 5 m g/m ³ LMPE-C T: 10 m g/m ³	O EL-TW A: 2 m g/m ³ Respirable fraction (R) O EL-STEL: 10 m g/m ³ Respirable fraction			
Copper	LMPE-PPT: 1 m g/m ³ LMPE-PPT: 0.2 m g/m ³ LMPE-C T: 2 m g/m ³ LMPE-C T: 2 m g/m ³	O EL-TW A: 1 m g/m ³ O EL-TW A: 0.2 m g/m ³			



SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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Physical State Appearance:	Solid article
Odor:	Odorless
Flash Point:	Does not apply
Auto Ignition Temperature:	Not determined

SECTION 10	STABILITY AND REACTIVITY PROPERTIES
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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
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Acute Toxicity:	This product has not been tested for its toxicity
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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.

Nickel :

RTECS Number:	Q R6555000
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Tungsten :

RTECS Number:	YO 7175000
Eye :	Eye - Rabbit Standard Draize test.: 500 mg/24H (RTECS)
Sk in:	Administration onto the skin - Rabbit Standard Draize test.: 500 mg/24H (RTECS)

Chromium :

RTECS Number:	GB4200000
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Lead :

R TEC S Num be r: O F7525000

Cobalt :

R TEC S Num be r: GG0375000

Iron :

R TEC S Num be r: NO 8225000

Tin :

R TEC S Num be r: XP7320000

Zinc oxide :

R TEC S Num be r: ZH4817000

Copper :

R TEC S Num be r: GL7440000

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

DO T Shipping Nam e : Not regulated as hazardous material for transportation.
DO T 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).

SECTION 15 REGULATORY INFORMATION

Inventory Status

	Canada DSL	TSCA Inventory Status
Nickel	Listed	Listed
Tungsten	Listed	Listed
Chrom ium	Listed	Listed
Lead	Listed	Listed
Cobalt	Listed	Listed
Iron	Listed	Listed
Tin	Listed	Listed
Zinc oxide	Listed	Listed
Copper	Listed	Listed

**Nickel :**

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List:0.1%.1126(1193)
CA PROP 65: Listed: cancer.
Section 313: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d 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: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d Chemical.

Lead :

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List 0.1%.937(1435)
Section 313: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d 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: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d Chemical.

Tin :

Canada IDL: Identified under the Canadian 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: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d Chemical.

Copper :

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List 0.1%.433(578)
Section 313: EPC R A - 40 C FR Pa rt 372 - (SAR A Title III) Se ction 313 Liste d Chemical.

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

Tin :

EC Number: 231-141-8

Zinc oxide :

EC Num be r: 215-222-5

Copper :

EC Nu ber: 231-159-6



State Right To Know

	RI	NY	MN	MI	IL
Nickel	Listed	Listed	Listed		Listed
Copper				Listed	

	PA	MA	NJ		
Nickel	Listed	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List: Substance Number 1341		
Tungsten	Listed	Listed	Listed		
Chromium	Listed	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List Substnace Number 0432		
Lead	Listed	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List Substnace Number 1096		
Cobalt	Listed	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List Substnace Number 0520		
Tin	Listed	Listed:	Listed: NJ Hazardous List Substnace Number 1858		
Zinc Oxide	Listed	Listed			
Copper	Listed	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List Substnace Number 0528		

SECTION 16

OTHER INFORMATION

HMIS Ratings:
 HMIS Health Hazard: 1
 HMIS Fire Hazard: 0
 HMIS Reactivity: 0
 HMIS Personal Protection: X