



MATERIAL SAFETY DATA SHEET

PART NUMBER 10 18 51

SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

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

TELEPHONE: 024 7642 1222
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PRODUCT: Diamond Cut-Off Wheel High Concentration

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num
Iron	7439-89-6	30 - 60 by weight	231-096-4
silicon	7440-21-3	1 - 5 by weight	231-130-8
Zinc Oxide	1314-13-2	5 - 10 by weight	215-222-5
Copper	7440-50-8	1 -5 by weight	231-159-6
Nickel	7440-02-0	1 - 5 by weight	231-111-4
Tungsten	7440-33-7	1 - 5 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	5-105 by weight	231-158-0
Diamond	7782-40-3	<= 1 by weight	

SECTION 3 SUBSTANCE HAZARD IDENTIFICATION

Classification of the chemical in a ccordance with CFR 1910.1200(d)(f):

Signal Word: Not applicable .
GHS Class: Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200
Hazard Statements: Not applicable .
Precautionary Statements: Not applicable .

Hazards not otherwise classified that have been identified during the classification process.

Route of Exposure: Eyes, Skin, Inhalation, Ingestion

Eye: Cause eye irritation.

Skin: Cause skin irritation.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin dizziness.



Signs / Symptoms: Overexposure may cause headaches and dizziness.
Target Organs: Eyes. Skin Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions: None generally recognized.

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 persist, get medical attention.
Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:

Other First Aid: Not applicable

Indication of immediate medical attention and special treatment needed:

Note to Physicians: Not applicable

SECTION 5 FIRE FIGHTING MEASURES

Suitable and unsuitable exting

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:

XCCNo 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 :

RECS Number:	QR6555000
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Tungsten :

RECS Number:	YO7175000
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Eye :	Eye - Rabbit Standard Draize test.: 500 mg/24H (RECS)
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Skin:	Administration onto the skin - Rabbit Standard Draize test.: 500 mg/24H (RECS)
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Chromium :

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