



MATERIAL SAFETY DATA SHEET

PART NUMBERS 101850

SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

SUPPLIER: METPREP LTD.
CURRIERS CLOSE
CHARTER AVENUE
COVENTRY CV4 8AW
TELEPHONE: 024 7642 1222
FAX: 024 7642 1192

DESCRIPTION: Water based lubricant.

PRODUCT: DIAMOND CUT-OFF WHEEL

SECTION 2 SUBSTANCE HAZARD IDENTIFICATION

Classification of the chemical in accordance with C FR 1910.1200(d)(f):

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

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 practiced.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Iron	7439-89-6	30 - 60 by weight	231-096-4
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
Diamond	7782-40-3	1 – 5 by weight	

SECTION 4 FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 – 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention, if irritation or symptoms of Overexposure persists.
Skin Contact:	Immediately wash skin with soap and plenty of water. Get Medical attention if 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:	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.

Indication of immediate medical attention and special treatment needed:

Note to Physicians: No information available.



SECTION 5 FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use any extinguishing media appropriate for the surrounding fires.

Unsuitable extinguishing Media: None.

Special protective equipment and precautions for fire-fighters:

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 MEASURE

Methods and materials for containment and cleaning up:

Methods for containment: Containment of 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

Precautions for safe handling:

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.

Hygiene Practices: Wear suitable gloves and eye/face protection.

Conditions for safe storage, including any incompatibilities:

Storage: No special storage conditions required.



EXPOSURE CONTROL/PERSONAL PROTECTION

SECTION 8

EXPOSURE GUIDELINES:

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



Nickel	LMPE-PPT: 1 mg/m ³ LMPE-PPT: 0.1mg/m ³ LMPE-CT: 0.3 mg/m ³	OEL-TWA: 0.05 mg/m ³ OEL-TWA: 0.05 mg/m ³ OEL-TWA: 0.05 mg/m ³			
Tungsten	LMPE-PPT: 5 mg/m ³ LMPE-PPT: 1 mg/m ³ LMPE-CT: 10 mg/m ³ LMPE-CT: 3 mg/m ³	OEL-TWA: 5 mg/m ³ OEL-TWA : 5 mg/m ³ OEL-TWA: 1 mg/m ³ OEL-STEL: 10mg/m ³ OEL-STEL: 10mg/m ³ OEL-STEL: 10mg/m ³ OEL-STEL: 3 mg/m ³			
Chromium	LMPE-PPT:0.5 mg/m ³ LMPE-PPT:0.5 mg/m ³ LMPE-PPT: 0.01 mg/m ³ LMPE-PPT: 0.05 mg/m ³ LMPE-PPT: 0.01 mg/m ³ LMPE-PPT: 0.05 mg/m ³	OEL-TWA: 0.5 mg/m ³ OEL-TWA: 0.5 mg/m ³ OEL-TWA: 0.01 mg/m ³ OEL-TWA: 0.02 mg/m ³ OEL-Ceiling/Peak: 0.1 mg/m ³			
Lead	LMPE-PPT: 0.15 mg/m ³	OEL-TWA: 0.05 mg/m ³ OEL-TWA: 0.05 mg/m ³			
Cobalt	LMPE-PPT 0.1 mg/m ³	OEL-TWA: 0.02 mg/m ³ OEL-TWA: 0.02 mg/m ³			

Appropriate engineering controls:

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

Individual protection measures:

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 N95 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.



SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance:	Solid article.
Odor:	Odorless.
Flash Point:	Does any apply.
Lower Flammable/Explosive Limit:	Not available
Upper Flammable/Explosive Limit:	Not available
Auto Ignition Temperature:	Not determined

SECTION 10 STABILITY AND REACTIVITY PROPERTIES

Chemical Stability:

Chemical Stability: Stable under normal conditions.

Possibility of hazardous reactions:

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to Avoid:

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

Hazardous Decomposition Products:

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

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.



Iron:

RTECS Number N08225000

Tin:

RTECS Number: XP7320000

Zinc oxide:

RTECS Number: ZH4817000

Copper:

RTECS Number: GL7440000

Nickel:

RTECS Number: QR6555000

Tungsten:

RTECS Number 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

SECTION 12 ECOLOGICAL INFORMATION

Persistence and degradability:

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

SECTION 13 DISPOSAL CONSIDERATIONS

Description of waste:

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)

SECTION 15 REGULATORY INFORMATION

Safety, health & environmental regulations specific for the product:

Inventory Status

	Canada DSL	TSCA Inventory Status			
Iron	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			

Tin:

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.157(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 372 – (SARA Title III) Section 313 Listed Chemical.

Nickel:

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

CA PROP 65: Listed: cancer.

Section 313: EPCRA – 40 CFR Part 373 – (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 Ingredient Disclosure List: 0.1%.937(1435)

Section 313: EPCRA – 40 CFR Part 373 – (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

Iron:

EC Number 231-096-4

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



State Right To Know

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

	PA	MA	NJ		
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	Listed: Massachusetts Oil and Hazardous List	Listed: NJ Hazardous List; Substance Number; 0520		

SECTION 16 OTHER INFORMATION

HMIS Ratings:

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

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