Safety Data Sheet

according to WHMIS 2023 and HCS 2024

Date of issue 04/11/2025 Version number 3.01 Revision: 04/11/2025

* 1 Identification

· **Product identifier**

· **Trade name: 841WBU**

· **Other Means of Identification:** Super Shield™ Water Based Nickel Conductive Paint

· **Related Part Number:**
841WBU-Liquid, 841WBU-55ML, 841WBU-850ML, 841WBU-3.78L, 841WBU-18.9L

· **Application of the substance / the mixture** Nickel filled, electrically conductive coating

· **Uses advised against** Not available

· **Details of the supplier of the safety data sheet**

·

Manufacturer/Supplier:
MG Chemicals (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 800-340-0772
+(1) 905-331-1396
info@mgchemicals.com

· **Information department:** sds@mgchemicals.com

· **Emergency telephone number:**

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA-Call Verisk 3E at +1-866-519-4752 or +1-760-476-3962 (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service
CANADA-Call CANUTEC collect at +1-613-996-6666 or *666 on cellular phones

* 2 Hazard identification

· **Classification of the substance or mixture**

Sensitization - skin – Category 1	H317 May cause an allergic skin reaction.
Carcinogenicity - Category 1B	H350 May cause cancer. Route of exposure: Inhalation.
Specific target organ toxicity (repeated exposure) – Category 1	H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger

(Contd. on page 2)

(Contd. of page 1)

· **Hazard-determining components of labeling:**
nickel
talc
· **Hazard statements**
H317 May cause an allergic skin reaction.
H350 May cause cancer. Route of exposure: Inhalation.
H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
· **Precautionary statements**
P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P260 Do not breathe mist/vapors/spray.
P280 Wear protective gloves / protective clothing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local, regional, and national regulations.

· **Other hazards** Not available

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
7440-02-0	nickel	47.7% w/w
1569-01-3	1-propoxypropan-2-ol	1.7% w/w
14807-96-6	talc	1.3% w/w
121-44-8	triethylamine	<0.1% w/w

*
4 First-aid measures

· **Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Wash with plenty water.
If skin irritation or rash occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
If exposed or concerned: Get medical advice or attention.

(Contd. on page 3)

(Contd. of page 2)

· **After eye contact:**
Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If symptoms persist consult doctor.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed**
See section 11 for additional information.

· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Not flammable or combustible, but burns if involved in a fire. Produces irritating smoke of unknown toxicity in fires.
Prevent fire-fighting wash from entering waterway or sewer system.
Inhalation of metal fumes may cause metal fever and irritate the respiratory tract.
The flu-like symptoms of metal fever may be delayed, occurring 4 to 12 hours after exposure.
May produce very toxic nickel carbonyl gas in the presence of carbon monoxide in a reducing atmosphere.
· **Hazardous combustion products:**
Carbon Oxides (COx)
Nitrogen Oxides (NOx)
toxic metal fumes
nickel oxide fumes, tetracarbonylenickel

· **Advice for firefighters**
· **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Do not breathe the mist/vapors/spray/fumes.

· **Environmental precautions:**
Avoid release to the environment.
Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.

(Contd. on page 4)

(Contd. of page 3)

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Collect liquid in a sealable, chemical-resistant container.
Wash residue with a paper towel and place dirty towels in container.
Use soap and water to remove the last traces of residue.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Wear protective gloves and eye protection.
Wash hands and exposed skin thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Obtain, read and follow all safety instructions before use.
Do not breathe mist, vapours, spray.

· **Information about protection against explosions and fires:**
Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**
Keep in a dry and clean area, away from incompatible substances

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** Keep receptacle tightly sealed.

· **Specific end use(s)** See section 1.2

8 Exposure controls/ Personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
7440-02-0 nickel	
EL (Canada)	TWA: 0.05 mg/m³ ACGIH A1, IARC 2B
EV (Canada)	TWA: 1 mg/m³ Inhalable fraction
PEL (USA)	TWA: 1 mg/m³
REL (USA)	TWA: 0.015 mg/m³ as Ni; See Pocket Guide App. A

(Contd. on page 5)

(Contd. of page 4)

TLV (USA)	TWA: 1.5* mg/m³ elemental, *inhalable fraction, A5, BEI

· **Ingredients with biological limit values:**	
7440-02-0 nickel	
BEI (USA)	5 µg/L Medium: urine Time: post-shift at end of workweek Parameter: Nickel (background) 30 µg/L Medium: urine Time: post-shift at end of workweek Parameter: Nickel (background)

· **Additional information:**
The lists that were valid during the creation were used as basis.
Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· **Personal protective equipment:**

· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Advice should be sought from respiratory protection specialists.
If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.

· **Protection of hands:**
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Protective gloves: EN374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 6)

(Contd. of page 5)

· **Eye protection:**

Safety glasses or tightly sealed goggles: EN 166

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **Physical state**	Liquid
· **Form:**	Viscous
· **Color:**	Dark grey
· **Odor:**	Musty
· **Odor threshold:**	Not determined.
· **Melting point/Melting range:**	Undetermined.
· **Boiling point/Boiling range:**	100 °C (212 °F)
· **Flammability:**	Non flammable
· **Explosion limits:**	
· **Lower:**	Not applicable
· **Upper:**	Not applicable
· **Flash point:**	Not applicable.
· **Auto igniting:**	200 °C (392 °F)
· **Decomposition temperature:**	Not determined.
· **pH-value:**	Not determined.
· **Viscosity:**	
· **Kinematic:**	Not determined.
· **Dynamic:**	Not determined.
· **Solubility in / Miscibility with**	
· **Water:**	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	23 hPa (17.3 mm Hg)
· **Vapor pressure:**	
· **Relative density at 20 °C (68 °F):**	2.91
· **Vapor density (air=1):**	Not determined.
· **Particle characteristics**	Not applicable.

· **Other information**	
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Solvent content:**	
· **Organic solvents:**	Not available

(Contd. on page 7)

(Contd. of page 6)

· **Evaporation rate**	Not determined.

10 Stability and reactivity

· **Reactivity**
The nickel can react vigorously with acids and liberate hydrogen, which can form an explosive mixture in air.
Nickel may react with carbon monoxide in a reducing atmosphere to form a very toxic nickel carbonyl gas.

· **Chemical stability** Chemically stable at normal temperatures and pressures.

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.

· **Incompatible materials:**
Oxidizing agents
Strong acids
acid anydrides

· **Hazardous decomposition products:**
No dangerous decomposition products known.
Hazardous combustion products: see section 5.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
121-44-8 triethylamine		
Oral	LD50	100 mg/kg (ATE)
		460 mg/kg (rat)
Dermal	LD50	300 mg/kg (ATE)
		570 mg/kg (rabbit)
Inhalative	LC50/4 h	7.2 mg/L (ATE)

· **Sensitization:** Sensitization possible through skin contact.

· **Summary of effects and symptoms by route of exposure**

· **Eyes:**
redness
blurred vision
pain

· **Skin:**
rash, allergic contact dermatitis

(Contd. on page 8)

(Contd. of page 7)

dry skin
redness
· **Inhalation:**
cough
shortness of breath
headache
· **Swallowed:** none known or expected

· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Prolonged or repeated exposure may cause skin allergies.
Chronic inhalation exposure to nickel dust or mist may affect the central nervous system, damage lungs, and lead to hearing loss with co-exposure to loud noises.

· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
7440-02-0	nickel	2B
14807-96-6	talc	2A

· **NTP (National Toxicology Program)**		
7440-02-0	nickel	R

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
7440-02-0 nickel	
LC50 96h	1.3 mg/L (fish) Contains nickel of less than a 1 mm but more than 100 nm (larger than nanoparticles), which release ionic nickel levels that are harmful to the environment. While massive nickel is insoluble in water, its powder is considered sufficiently soluble to give rise to an ecological hazard by EU regulators. The classification that follows takes into account to chronic aqueous toxicity of category 3 assignment of the EU.

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Contd. on page 9)

(Contd. of page 8)

· **Other adverse effects**
· **Remark:** Harmful to fish

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:** This material and its container must be disposed of as hazardous waste.

· **Uncleaned packagings:**
· **Recommendation:**
Containers may still present a chemical hazard/ danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.

14 Transport information

· **UN-Number**	
· **DOT/TDG, IMDG, IATA**	not regulated
· **UN proper shipping name**	
· **DOT/TDG, IMDG, IATA**	not regulated
· **Transport hazard class(es)**	
· **DOT/TDG, ADN, IMDG, IATA**	
· **Class**	not regulated
· **Packing group**	
· **DOT/TDG, IMDG, IATA**	Not applicable
· **Environmental hazards:**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Special precautions for user**	Not applicable.
· **UN "Model Regulation":**	not regulated

* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **OSHA Hazard Communication Standard (29 CFR Part 1900)**
The safety data sheet and label comply with HCS 2024.

(Contd. on page 10)

(Contd. of page 9)

· **Hazardous Products Act (R.S.C., 1985, c. H-3)**
The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2023.

· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**	
7440-02-0	nickel
121-44-8	triethylamine

· **TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.

· **Hazardous Air Pollutants**	
121-44-8	triethylamine

· **Proposition 65**

· **Chemicals known to cause cancer:**	
7440-02-0	nickel

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **TLV (Threshold Limit Value)**		
7440-02-0	nickel	A5
14807-96-6	talc	A4
121-44-8	triethylamine	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
7440-02-0	nickel

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**
All ingredients are listed.

· **Canadian Non-Domestic Substances List (NDSL)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**	
7440-02-0	nickel

· **Canadian Ingredient Disclosure list (limit 1%)**
None of the ingredients is listed.

(Contd. on page 11)

(Contd. of page 10)

· **HMIS-ratings (scale 0 - 4)**
Health = * 2
Fire = 0
Reactivity = 0

· **Europe**

· **RoHS (Restriction of Hazardous Substances Directive)**
This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

· **WEEE (Waste Electrical and Electronic Equipment Directive)**
This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Regulatory department
· **Contact:** sds@mgchemicals.com
· **Version number of previous version:** 3.00
· **Date of preparation** 04/11/2025
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
· *** Data compared to the previous version altered.**