Safety Data Sheet

according to WHMIS 2025 and HCS 2024

Date of issue 05/05/2026 Version number 2.00 Revision: 05/05/2026

1 Identification

· **Product identifier**

· **Trade name: 842WBU**

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

· **Related Part Number:** 842WBU-Liquid, 842WBU-55ML, 842WBU-850ML, 842WBU-3.78L

· **Application of the substance / the mixture** 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

·

Distributor:
Masline
511 Clinton Ave S
Rochester, New York 14620
United States
+(1) 586-546-5373

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

· **Emergency telephone number:**

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA-Call 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**

Reproductive Toxicity - Category 2	H361 Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (repeated exposure) – Category 2	H373 May cause damage to the nervous system through prolonged or repeated exposure.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.

· **Label elements**

· **GHS label elements**

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

(Contd. on page 2)

(Contd. of page 1)

· **Hazard pictograms**



GHS08 GHS09

· **Signal word** Warning

· **Hazard-determining components of labeling:**
silver powder: (particle diameter >100 nm and <1 mm)

· **Hazard statements**
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to the nervous system through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist, vapors, or spray.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, and eye protection.
P308+P313 IF exposed or concerned: Get medical advice.
P314 Get medical advice if you feel unwell.
P391 Collect spillage.
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:**		
7440-22-4	silver powder: (particle diameter >100 nm and <1 mm)	46% w/w

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.
If exposed or concerned: Get medical advice/attention.

· **After skin contact:**
Generally the product does not irritate the skin.
Wash with plenty of water or shower.

(Contd. on page 3)

(Contd. of page 2)

If exposed or concerned: Get medical advice or attention.

· **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.
If exposed or concerned: Get medical advice/attention.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
If exposed or concerned: Get medical advice or attention.

· **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**
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.
· **Hazardous combustion products:**
Carbon Oxides (COx)
toxic metal fumes
other toxic fumes

· **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**
Remove or keep away all sources of extreme heat or open flames.
Avoid breathing mist, spray, or vapors.

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

(Contd. on page 4)

(Contd. of page 3)

· **Methods and material for containment and cleaning up:**
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**
Collect spillage.
Obtain, read and follow all safety instructions before use.
Do not breathe mist, vapours, spray.
Do not eat, drink, or smoke when using this product.

· **Information about protection against explosions and fires:** No special measures required.

· **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:** None.

· **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:**	
7440-22-4 silver powder: (particle diameter >100 nm and <1 mm)	
EV (Canada)	TWA: 0.1* 0.01** mg/m³ *metal;**water-soluble compdounds (as silver)
PEL (USA)	TWA: 0.01 mg/m³
REL (USA)	TWA: 0.01 mg/m³

· **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** Keep airborne concentrations below exposure limits.

(Contd. on page 5)

(Contd. of page 4)

· **Personal protective equipment:**
· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
· **Breathing equipment:**
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.
For over-exposures up to 10 x OEL of mist, vapors, and spray, wear respirator such as a half-mask respirator with organic vapor cartridges.
Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.
Advice should be sought from respiratory protection specialists.
· **Protection of hands:**



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.
· **Eye protection:**



Wear safety glasses: EN 166

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Physical state**	Liquid
· **Form:**	Viscous
· **Color:**	Metallic Silver
· **Odor:**	Mild
· **Odor threshold:**	Not available
· **Flammability:**	Non flammable
· **Explosion limits:**	
· **Lower:**	Not applicable
· **Upper:**	Not applicable
· **Flash point:**	Not applicable
· **Auto igniting:**	Not determined

(Contd. on page 6)

(Contd. of page 5)

· **Viscosity:**	
· **Kinematic at 20 °C (68 °F):**	>20.5 mm²/s
· **Solubility in / Miscibility with**	
· **Water:**	Partly miscible.
· **Vapor pressure:**	Not determined
· **Relative density at 25 °C (77 °F):**	1.642
· **Vapor density (air=1):**	Not available
· **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.
· **Organic solvents:**	Not available
· **VOC content:**	0.000 %
· **Evaporation rate**	Not available

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **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:**
Strong acids
Strong bases

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

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
7440-22-4 silver powder: (particle diameter >100 nm and <1 mm)		
Oral	LD50	>2,000 mg/kg (rat)

(Contd. on page 7)

(Contd. of page 6)

Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	≥5.16 mg/L (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Suspected of damaging fertility or the unborn child.
· **Specific target organ toxicity - single exposure**
Based on available data, the classification criteria are not met.
· **Specific target organ toxicity - repeated exposure**
May cause damage to the nervous system through prolonged or repeated exposure.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **Summary of effects and symptoms by route of exposure**
· **Eyes:**
Low toxicity:
may cause mild irritation
may cause redness
· **Skin:**
Low toxicity:
may cause redness, mild irritation, and dry skin
· **Inhalation:**
Low toxicity:
none known or expected
· **Swallowed:**
Low toxicity:
may cause abdominal pain, nausea and vomiting
· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Exposure to silver powder may also cause argyria, an irreversible blue-grey discoloration of the skin.

· **Additional toxicological information:**

· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

· NTP (National Toxicology Program)
None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:**
Very toxic to aquatic life with long lasting effect.
Avoid release to the environment.
Collect spillage.

(Contd. on page 8)

(Contd. of page 7)

· **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

· **Other adverse effects** No further relevant information available.

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**	UN3082
· **UN proper shipping name**	
· **DOT/TDG**	NOT REGULATED by DOT Environmentally hazardous substance, liquid, n.o.s. (Silver (Powder))
· **IMDG**	NOT REGULATED by Sea IMDG per 2.10.2.7 for sizes 5L or less. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver (Powder))
· **IATA**	NOT REGULATED by Air IATA Special Provision A197 for sizes 5L or less. Environmentally hazardous substance, liquid, n.o.s. (Silver (Powder))

(Contd. on page 9)

(Contd. of page 8)

· **Transport hazard class(es)**

· **DOT/TDG, IMDG**



· **Class**	9 Miscellaneous dangerous substances and articles
· **Label**	9

· **IATA**



· **Class**	9 Miscellaneous dangerous substances and articles
· **Label**	9

· **Packing group**

· **DOT/TDG, IMDG, IATA** III

· **Environmental hazards:** Product contains environmentally hazardous substances: Silver (Powder)

· **Marine pollutant:** MARINE POLLUTANT

· **Special marking (IATA):** ENVIRONMENTALLY HAZARDOUS
Symbol (fish and tree)

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable

· **Transport/Additional information:**

· **DOT/TDG**

· **Quantity limitations** On passenger aircraft/rail: No limit
On cargo aircraft only: No limit

· **IMDG**

· **Limited quantities (LQ)** 5L

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **Special precautions for user** Not applicable

· **Hazard identification number (Kemler code):** 90

· **EMS Number:** F-A,S-F

· **Stowage Category** A

(Contd. on page 10)

(Contd. of page 9)

· **UN "Model Regulation":**	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SILVER (POWDER)), 9, III

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.

· **Hazardous Products Act (R.S.C., 1985, c. H-3)**
The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2022.

· **Sara**

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

· **Section 313 (Specific toxic chemical listings):**
All ingredients are listed.

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

· **Hazardous Air Pollutants**
None of the ingredients is listed.

· **Proposition 65**

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

· **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)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Canadian substance listings:**

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

(Contd. on page 11)

(Contd. of page 10)

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

· **Canadian Ingredient Disclosure list (limit 0.1%)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**
All ingredients are listed.

· **HMIS-ratings (scale 0 - 4)**
Health = *1
Fire = 1
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.

· **Per- and polyfluoroalkyl substances (PFAS)**
None of the ingredients is listed.

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
· **Date of previous version** 03/05/2025
· **Version number of previous version:** 1.00
· **Date of preparation** 05/05/2026
· **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)
VOC: Volatile Organic Compounds (USA, EU)
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