



Quality System Certified to ISO 9001:2008

SAI Global File #004008

Burlington, Ontario, Canada

SUPER SHIELD NICKEL CONDUCTIVE COATING

841-LIQUID

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Super Shield™ Nickel Conductive Coating

SDS Code: 841-Liquid

Related Part # 841-900ML, 841-1G (see also 840-Liquid)

Recommended Use and Restriction on Use

Use: Nickel filled, electrically conductive coating

Uses Advised Against: Not available

Details of Manufacturer or Importer

Manufacturer

MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ +1-800-340-0772

☎ +1-905-331-1396

FAX +1-800-340-0773

FAX +1-905-331-2682

E-MAIL support@mgchemicals.com

E-MAIL info@mgchemicals.com

WEB www.mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY—leaks, spills, fires, exposures or accidents

USA or CANADA: Call CHEMTREC ☎: **+1-800-424-9300**

For emergencies involving dangerous goods; Collect 24/7

CANADA: Call CANUTEC ☎: **+1-613-996-6666** or ***666** on cellular phones

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Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria	Category	Signal Word	Pictograms
Flammable Liquid	2	Danger	Flame
Specific Target Organ Toxicity Repeated Exposure	1	Danger	Health
Carcinogenicity	2	Warning	Health
Reproductive Toxicity	2	Warning	Health
Sensitization Skin sensitizer	1	Warning	Exclamation
Eye irritation	2	Warning	Exclamation
Skin Irritation	3	Warning	Exclamation
Specific Target Organ Toxicity Single Exposure	3	Warning	Exclamation
Environmental Hazard Chronic Aqua. Tox.	3	none	none

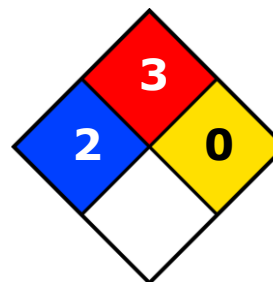
Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Other Classifications

HMIS® RATING

HEALTH:	* 2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:




0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

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Label Elements

Signal Word	DANGER
Pictograms	Hazard Statements
	H225: Highly flammable liquid and vapor
	H372: Causes damages to organs (lungs, central nervous system, inner ear) through prolonged or repeated exposure by inhalation H351: Suspected of causing cancer H361: Suspected of damaging fertility or the unborn child
	H319: Causes serious eye irritation H315: Causes skin irritation H317: May cause allergic skin reaction H336: May cause drowsiness and dizziness
None	H412: Harmful to aquatic life with long lasting effects
Prevention	Precautionary Statements
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, flames, and other ignition sources. No Smoking.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P233	Keep container tightly closed.
P260	Do not breathe mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P270	Do not eat, drink or smoke when using this product.
P240	Ground and bond container and receiving equipment.

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Prevention	Precautionary Statements
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
Response	Precautionary Statements
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P303 + P361 + P364 + P352	IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
Storage	Precautionary Statements
P403 + P235	Store in well-ventilated place. Keep cool.
P405	Store locked up.
Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
Defats skin	Repeated exposure may cause skin dryness or cracking.	None	None

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Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
7440-02-0	nickel	48%
108-88-3	toluene	12%
67-64-1	acetone	8%
110-19-0	isobutyl acetate	4%
110-43-0	heptan-2-one	4%
64-17-5	ethanol	3%
14807-96-6	talc	2%
141-78-6	ethyl acetate	2%
108-65-6	1-methoxy-2-propanol acetate	1%

Section 4: First-Aid Measures

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
IF ON SKIN (or hair)	P303 + P361 + P364 + P352, P333 + P313
Immediate Symptoms	<i>redness, irritation, dry skin</i>
Response	Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED	P304 + P340, P312, P314
Immediate Symptoms	<i>drowsiness, dizziness, cough, headaches, nausea, unconsciousness</i>
Response	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

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IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	<i>irritation, redness</i>
Response	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF SWALLOWED	P301 + P330, P331
Immediate Symptoms	<i>nausea, sore throat, diarrhea, drowsiness, dizziness</i>
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF exposed or concerned: Get medical advice/attention.

Section 5: Fire-Fighting Measures

In case of fire	P370 + P378
Extinguishing Media	Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Specific Hazards	The liquid may float on water and ignite. Produces irritating and toxic fumes in fires or in contact with hot surfaces. May produce very toxic nickel carbonyl gas in the presence of carbon monoxide in a reducing atmosphere. The vapors are heavier than air and may accumulate in low-lying areas. Vapors may travel long distances and ignite at an ignition source, which can cause a flashback or an explosion.
Combustion Products	Produces carbon oxides (CO,CO ₂), nickel oxides fumes, and nitrogen oxides (NO _x)
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Section 6: Accidental Release Measures**

Personal Protection	See personal protection recommendations in Section 8.
Precautions for Response	Do not breathe the mist/spray/vapors. Remove or keep away all sources of extreme heat or open flames.
Environmental Precautions	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
Containment Methods	Contain with inert and non-flammable absorbent (such as soil, sand, vermiculite).
Cleaning Methods	Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with soap and water to remove the last traces of residue.
Disposal Methods	Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Keep out of reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe mist/vapors/spray. Do not eat, drink, or smoke when using this product.
Handling	Wear protective gloves/protective clothing/eye protection. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Avoid release to the environment.
Storage	Store in well ventilated place. Keep cool. Store locked up.

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Section 8: Exposure Controls/Personal Protection

Routes of Entry

Inhalation, Skin contact, Eye contact, Ingestion

Substances with Occupational Exposure Limit Values

Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
nickel	ACGIH	1.5 mg/m ³	Not established
	U.S.A. OSHA PEL	1 mg/m ³	Not established
	Canada AB	1.5 mg/m ³	Not established
	Canada BC	0.05 mg/m ³	Not established
	Canada ON	1 mg/m ³	Not established
	Canada QC	1 mg/m ³	Not established
toluene	ACGIH	20 ppm	Not established
	U.S.A. OSHA PEL	200 ppm	300 ppm
	Canada AB	50 ppm	Not established
	Canada BC	20 ppm	Not established
	Canada ON	20 ppm	Not established
	Canada QC	100 ppm	150 ppm
acetone	ACGIH	500 ppm	750 ppm
	U.S.A. OSHA PEL	1000 ppm	Not established
	Canada AB	500 ppm	750 ppm
	Canada BC	250 ppm	500 ppm
	Canada ON	500 ppm	750 ppm
	Canada QC	750 ppm	1000 ppm
isobutyl acetate	ACGIH	150 ppm	Not established
	U.S.A. OSHA PEL	150 ppm	Not established
	Canada AB	150 ppm	Not established
	Canada BC	150 ppm	Not established
	Canada ON	150 ppm	Not established
	Canada QC	150 ppm	Not established
heptan-2-one	ACGIH	50 ppm	Not established
	U.S.A. OSHA PEL	100 ppm	Not established
	Canada AB	50 ppm	Not established
	Canada BC	50 ppm	Not established
	Canada ON	25 ppm	Not established
	Canada QC	50 ppm	Not established
ethanol	ACGIH	Not established	1 000 ppm
	U.S.A. OSHA PEL	1 000 ppm	Not established
	Canada AB	1 000 ppm	Not established
	Canada BC	Not established	1 000 ppm
	Canada ON	Not established	1 000 ppm
	Canada QC	1 000 ppm	Not established

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Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
talc (non-asbestos fiber)	ACGIH	2 mg/m ³	Not established
	U.S.A. OSHA PEL	20 mppcf ^{a)}	Not established
	Canada AB	2 mg/m ³	Not established
	Canada BC	2 mg/m ³	Not established
	Canada ON	2 mg/m ³	Not established
	Canada QC	3 mg/m ³	Not established
ethyl acetate	ACGIH	400 ppm	Not established
	U.S.A. OSHA PEL	400 ppm	Not established
	Canada AB	400 ppm	Not established
	Canada BC	150 ppm	Not established
	Canada ON	400 ppm	Not established
	Canada QC	400 ppm	Not established
1-methoxy-2-propanol acetate	ACGIH	Not established	Not established
	U.S.A. OSHA WEEL	50 ppm	Not established
	Canada AB	Not established	Not established
	Canada BC	50 ppm	75 ppm
	Canada ON	50 ppm	Not established
	Canada QC	Not established	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database² of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Million particles per cubic foot of air, based on impinge samples counted by light-field technique.

Engineering Controls

Ventilation

Keep airborne concentrations below the occupational exposure limits (OEL).

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

Recommendation: Ensure that glasses have side shields for lateral protection.

Skin Protection

For likely contacts, use of protective butyl rubber, fluorinated rubber, or other chemically resistant gloves.

For incidental contacts, use nitrile, neoprene, PVC gloves, or other chemically resistant gloves.

Respiratory Protection

For over-exposures up to 10 x OEL of mist/vapors/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.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this SDS, and that the respirator is fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

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Section 9: Physical and Chemical Properties

Physical State	Liquid	Lower Flammability Limit ^{c)}	1%
Appearance	Steel grey	Upper Flammability Limit ^{c)}	12%
Odor	Benzene like, sweetish	Vapor Pressure ^{c)}	100 hPa [75 mmHg]
Odor Threshold	2 ppm	Vapor Density ^{a)}	>2 (Air =1)
pH	Not available	Specific Gravity @25 °C	1.67
Freezing/Melting Point	Not available	Solubility in Water	Partially soluble
Boiling Point ^{a)}	≥56 °C [≥132 °F]	Partition Coefficient	Not available
Flash Point ^{a)}	-17 °C [1.4 °F]	Auto-ignition Temperature ^{b)}	≥315 °C [≥599 °F]
Evaporation Rate	Fast	Decomposition Temperature	Not available
Flammability (solid, gas)	Not available	Viscosity ^{d)} @40 °C	≥34 mm ² /s

a) The values for the boiling point and closed cup flash point are based on the acetone component.

b) The auto-ignition value is based on 1-methoxy-2-propanol acetate, which is the component with the lowest value.

c) Lower and Upper Explosive Limits of mixture calculated using Le Chatelier principle and component LFL and UFL limits

d) Kinematic viscosity at 40 °C for separation layer

SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Section 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
Conditions to Avoid	Ignition sources, open flames, excessive heat, and incompatible substances
Incompatibilities	Oxidizing agents, strong acids, acid anhydrides
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

Section 11: Toxicological Information**Routes of Exposure**

Eyes, ingestion, inhalation, and skin

Symptoms Summary

Eyes	Cause eye redness and severe irritation.
Skin	May causes skin redness and mild irritation.
Inhalation	May cause drowsiness, dizziness, cough, headaches, nausea, unconsciousness.
Ingestion	May cause nausea, sore throat, and diarrhea (see inhalation symptoms).
Chronic	Prolonged or repeated exposure may cause skin dryness, cracking, as well as defatting the skin. 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. Ingestion or inhalation of paint material, mist, or vapor during pregnancy may increase the chances fetal death and developmental defects.

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Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
nickel	5 000 mg/kg Rat	Not available	Not available
toluene	636 mg/kg Rat	12 124 mg/kg Rabbit	49 g/m ³ 4h Rat
Acetone	5 800 mg/kg Rat	>9 400 µL/kg Guinea pig	44 g/m ³ 4 h Rat
ethyl acetate	5 620 mg/kg Rat	>20 000 µL/kg Rabbit	45 g/m ³ 2 h Mouse
isobutyl acetate	13 400 mg/kg Rat	>17 400 mg/kg Rabbit	>13.24 mg/L 6 h Rat
2-heptanone	1 670 mg/kg Rat	12 600 µL/kg Rabbit	Not available
ethanol	7 060 mg/kg Rat	Not available	20 000 ppm 10 h Rat
talc (non-asbestos fiber)	Not available	Not available	Not available
1-methoxy-2-propanol acetate	8 532 mg/kg Rat	>5 g/kg Rabbit	Not available

Note: Toxicity data from the RTECS database accessed through the Canadian Centre for Occupational Health and Safety (CCOHS)² were consulted. The data from supplier (M)SDS were also consulted.

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Other Toxicological Effects**

Skin corrosion/irritation The toluene component is a known severe skin irritant.

Serious eye damage/irritation Acetone, ethanol, and ethyl acetate cause serious eye irritations. Contains mechanically abrasive particles.

Sensitization
(allergic reactions) Exposure to nickel may cause allergic skin reaction.

Carcinogenicity
(risk of cancer) Nickel is classified as a suspect carcinogen based on animal intratracheal instillation (intubation) or interperitoneal (in body cavity) injection studies. A reliable 2008 study by Oller et al. shows no carcinogenicity for the nickel metal via normal inhalation route.

Evidence of carcinogenicity of ethanol relates to excessive alcoholic beverage consumption, and doesn't relate to exposure risks when used in the workplace or as a non-comestible consumer product.

Nickel [7440-02-0]

IARC Group 2B: Possibly carcinogenic to humans

ACGIH A5: Not suspected as a human carcinogen

CA Prop 65: Listed as a carcinogen

NTP: Reasonably anticipated to be human carcinogen

Ethanol [CAS# 64-17-5]

IARC Group 1: Possibly carcinogenic to humans in the form of alcoholic beverages (not ethanol)

ACGIH A4: Not classified as a human carcinogen

CA Prop 65: Listed as a carcinogen when consumed as a beverage

NTP: When in alcoholic beverage consumption, it is listed as a known carcinogen

Mutagenicity
(risk of heritable genetic effects) Based on available data, the classification criteria are not met.

Reproductive Toxicity
(risk to sex functions) Toluene and ethanol present reproductive and developmental hazards at high doses (>13 000 µg/day)

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Teratogenicity (risk of fetus malformation)	Harmful to unborn fetus in large doses
STOT-single exposure	Inhalation of toluene may affect the central nervous system
STOT-repeated exposure	Nickel particles can damage the respiratory tract leading to inflammation, lung fibrosis, and accumulation of nickel particles in a rat study. Contains 12% toluene, which is a Cat 2 STOT repeated exposure hazard for the central nervous system and cochlear systems. Toluene is an ototoxic chemical according to rat studies: inhalation exposure in the presence of noise may lead to cochlear impairment.
Aspiration hazard	Based on available data, the classification criteria are not met. There is over 12% category 1 components, but the kinematic viscosity for the separation layer is >20.5 mm ² /s at 40 °C.

Section 12: Ecological Information

The IMDG Code criteria, the raw-material safety data sheets, and supporting data from the European Chemical Agency database (<http://echa.europa.eu>) were used to support the classification.

Nickel powder less than 1 mm diameter is classified as a chronic category 3 aquatic pollutant by ECHA registrants.

Toluene is an acute category 2 aquatic toxicant (with minimal LC50 of 7.63 mg/L for *Oncorhynchus mykiss* (rainbow trout); 8.9 mg/L 24 h *Daphnia magna* (water flea); 10 mg/L 24 h *Pseudokirchneriella subcapitata* (green algae)).

The 1-methoxy-2-propanol acetate component is an acute category 3 aquatic toxicant (with minimal LC50 96 h of ≥ 100 mg/L *Salmo gairdneri*); and EC50 48 h >500 mg/L *Daphnia magna* (water flea)).

Isobutyl acetate, heptan-2-one, ethanol, and ethyl acetate are not classifiable as an environmental toxicant (with minimal LC50 of >100 mg/L).

- Isobutyl acetate as a minimal LC50 48 h of 101 mg/L for *Leuciscus idus melanotus* and 250 mg/L for *Daphnia magna* (water flea).
- Heptan-2-one has a minimal LC50 96 h of 126 mg/L for *Pimephales promelas* (fathead minnow).
- Ethanol is biodegradable and has a minimal LC50 of >1 000 mg/L for fish, invertebrates, and algae.
- Ethyl acetate is has a minimal LC50 96 h of 220 mg/L for *Pimephales promelas* (fathead minnow); a LC50 48 h of 560 mg/L and EC50 24 h of 2 300 mg/L *Daphnia magna* (water flea); and an EC50 72 h 1 800 mg/L for *Selenastrum*.

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Acute Ecotoxicity**

Category 3

Harmful to aquatic life

Chronic Ecotoxicity

Category 3

Harmful to aquatic life with long lasting effects.

Avoid release to the environment. Collect spillage.

Biodegradability

The nickel content is not biodegradable.

Other Effects

Actual VOC (Volatile Organic Compounds) content according to the US (EPA) and Canadian (CEPA) authorities.

VOC = 26% [441 g/L]

Note: Nickel can be recovered from the waste to reclaim the value of the nickel.**Section 13: Disposal Information**

Dispose of contents in accordance with all local, regional, national, and international regulations.

Section 14: Transport Information**Ground****Refer to TDG** (Canadian Transportation of Dangerous Goods regulations) and **USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Sizes 1 liter and under

Limited Quantity

Sizes greater than 1 liter

UN number: UN1263**Shipping Name:** PAINT**Class:** 3**Packing Group:** II**Marine Pollutant:** NoFlash Point ≥ -17 °C [1.4 °F]*Section continued on the next page*

SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Air****Refer to ICAO-IATA Dangerous Goods Regulations.**

Sizes 1 liter and under

Limited Quantity

Sizes up to 5 L (passenger), 60 L (cargo)

UN number: UN1263**Shipping Name:** PAINT**Class:** 3**Packing Group:** II**Marine Pollutant:** NoFlash Point ≥ -17 °C [1.4 °F]**Sea****Refer to IMDG regulations.**

Sizes 1 liter and under

Limited Quantity

Sizes greater than 1 liters

UN number: UN1263**Shipping Name:** PAINT**Class:** 3**Packing Group:** II**Marine Pollutant:** NoFlash Point ≥ -17 °C [1.4 °F]

Note: Shipper must be appropriately trained and certified before involvement with the transport of dangerous goods.

Section 15: Regulatory Information**Canada****WHMIS 1988 Classification**

B2 – Flammable Liquid;

D2A – Very Toxic (Carcinogenicity and Reproductive toxicity);

D2B – Toxic Other (Skin/Eye Irritation; Skin sensitization)

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

USA**CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product contains toluene (CAS# 108-88-3), which is listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains toluene (CAS# 108-88-3) and nickel (CAS# 7440-02-0) subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

This product contains toluene (CAS# 108-88-3; reportable quantity = 1000 lb) and nickel (CAS# 7440-02-0, reportable quantity = 100 lb), which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

This product contains acetone (CAS# 67-64-1), isobutyl acetate (CAS# 110-19-0) and ethyl acetate (CAS# 141-78-6), which are subject to the CERCLA reporting requirements at the 5000 lb (2268 kg) threshold.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, June 06, 2014 revision, USA).

This product contains toluene, which is listed as reproductively toxic.

This product contains nickel, which is listed as a carcinogen.

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Europe****RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, 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.

Section 16: Other Information**SDS Prepared by** Michel Hachey**Date of Review** 11 May 2015**Supersedes** 19 March 2013**Reason for Changes:** Compliance adjustment to meet both HCS 2012 and WHMIS 2015 regulations.**Reference**

- 1) ACGIH 2013 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2013).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

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SUPER SHIELD NICKEL CONDUCTIVE COATING**841-LIQUID****Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ECHA	European Chemicals Agency
EU	European Union
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

Email: support@mgchemicals.com

Mailing Addresses *Manufacturing & Support*
1210 Corporate Drive
Burlington, Ontario, Canada
L7L 5R6

Head Office
9347-193rd Street
Surrey, British Columbia, Canada
V4N 4E7

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