

841AR

(AEROSOL)

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** 841AR**Other Means of Identification:** Super Shield™ Nickel Conductive Coating (Aerosol)**Related Part #** 841AR-340G

### Recommended Use and Restriction on Use

**Use:** Electrically conductive coating and EMI/RFI shield**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**FAX** +1-800-340-0773**E-MAIL** [support@mgchemicals.com](mailto:support@mgchemicals.com)**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)**☎** +1-905-331-1396**FAX** +1-905-331-2682**E-MAIL** [info@mgchemicals.com](mailto:info@mgchemicals.com)**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)

### Emergency Phone 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 serviceCANADA—Call CANUTEC collect at **+1-613-996-6666** or **\*666** on cellular phones

**841AR**
**(AEROSOL)**
**Section 2: Hazard(s) Identification**
**Classification of Hazardous Chemical**
**GHS Categories**

Criteria		Category	Signal Word	Pictograms
Specific Target Organ Toxicity	Repeated Exposure	1	Danger	Health
Carcinogenicity		2	Warning	Health
Flammable Aerosol		2	Warning	Flame
Gas Under Pressure		Liquefied gas	Warning	Gas cylinder
Sensitization	Skin	1	Warning	Exclamation
Eye Irritation		2	Warning	Exclamation
Specific Target Organ Toxicity	Single Exposure	3	Warning	Exclamation
Hazardous to the Aquatic Environmental	Chronic	3	<i>none</i>	<i>none</i>


*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.

**Label Elements**

<b>Signal Word</b>	<b>DANGER</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H372: Causes damages to organs (lungs) through prolonged or repeated exposure by inhalation H351: Suspected of causing cancer
	H223: Flammable aerosol
	H280: Contains gas under pressure; may explode if heated

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<b>Pictograms</b>	<b>Hazard Statements</b>
	H317: May cause an allergic skin reaction H319: Causes serious eye irritation H336: May cause drowsiness or dizziness
<i>No pictogram required</i>	H412: Harmful to aquatic life with long lasting effects
<b>Prevention</b>	<b>Precautionary Statements</b>
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.
P260	Do not breathe mist, vapors, and spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P271	Use only outdoors or in a well-ventilated area.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P280	Wear protective gloves, protective clothing, and eye protection.
P270	Do not eat, drink or smoke when using this product.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
<b>Response</b>	<b>Precautionary Statements</b>
P308 + P313	IF exposed or concerned: Get medical advice or attention.
P314	Get medical advice or attention if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice or attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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<b>Response</b>	<b>Precautionary Statements</b>
P337 + P313	If eye irritation persists: Get medical advice or attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor if you feel unwell.
<b>Storage</b>	<b>Precautionary Statements</b>
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].
P403	Store in a well-ventilated place.
P405	Store locked up.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of container in accordance to local, regional, national and international regulations.

**Hazards Not Otherwise Classified**

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
Defats skin	Repeated exposure may cause skin dryness or cracking.	None	None
Simple Asphyxiant	May displace oxygen and cause rapid suffocation.	Warning	None

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**Section 3: Composition/Information on Ingredients**

CAS #	Chemical Name	%(weight)
7440-02-0	nickel	31%
67-64-1	acetone	18%
74-98-6	propane	13%
616-38-6	dimethyl carbonate	11%
75-28-5	isobutane	7%
123-86-4	n-butyl acetate	6%
110-43-0	heptan-2-one	6%
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>
<b>IF ON SKIN</b>	P302 + P352, P333 + P313, P362 + P364
<b>Immediate Symptoms</b>	<i>redness, irritation, dry skin, allergic reaction</i>
<b>Response</b>	Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.
<b>IF INHALED</b>	P304 + P340, P312, P308 + P313
<b>Immediate Symptoms</b>	<i>cough, sore throat, drowsiness, dizziness, headaches, nausea, unconsciousness</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF exposed or concerned: Get medical advice or attention.

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<b>IF IN EYES</b>	P305 + P351 + P338, P337 + P313
<b>Immediate Symptoms</b>	<i>redness, severe irritation, blurred vision, pain</i>
<b>Response</b>	Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  If eye irritation persists: Get medical advice or attention.
<b>IF SWALLOWED</b>	P301 + P330 + P331, P308 + P313
<b>Immediate Symptoms</b>	<i>nausea, sore throat, abdominal pain, diarrhea, drowsiness, dizziness, vomiting</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.  IF exposed or concerned: Get medical advice or attention.

**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.  Use water spray to cool containers.
<b>Specific Hazards</b>	Aerosols containers may erupt with force at temperatures above 50 °C [122 °F].  The liquid may float on water and ignite.  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.
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> ) and metal oxide fumes.
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**841AR****(AEROSOL)****Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Do not breathe the mist, spray, and vapors. Remove or keep away all sources of extreme heat or open flames.
<b>Environmental Precautions</b>	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
<b>Containment Methods</b>	Not applicable
<b>Cleaning Methods</b>	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.
<b>Disposal Methods</b>	Dispose of spill waste according to Section 13.

**Section 7: Handling and Storage**

<b>Prevention</b>	Keep out of reach of children.  Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  Do not breathe mist, vapors, and spray.  Do not eat, drink, or smoke when using this product.  Do not pierce or burn, even after use.  Contaminated work clothing should not be allowed out of the workplace.
<b>Handling</b>	Do not spray on an open flame or other ignition source.  Use only outdoors or in a well-ventilated area.  Wear protective gloves, protective clothing, and eye protection.  Take off contaminated clothing and wash it before reuse.  Wash hands thoroughly after handling.  Avoid release to the environment.
<b>Storage</b>	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].  Store in a well-ventilated place.  Store locked up.

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**Section 8: Exposure Controls/Personal Protection**
**Substances with Occupational Exposure Limit Values**

<b>Chemical Name</b>	<b>Country/ Provinces</b>	<b>Long Term Exposure Limits (PEL)</b>	<b>Short Term Exposure Limits (STEL)</b>
nickel	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	1.5 mg/m <sup>3</sup> 1 mg/m <sup>3</sup> 1.5 mg/m <sup>3</sup> 0.05 mg/m <sup>3</sup> 1 mg/m <sup>3</sup> 1 mg/m <sup>3</sup>	Not established Not established Not established Not established Not established Not established
acetone	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	500 ppm 1 000 ppm 500 ppm 250 ppm 500 ppm 750 ppm	750 ppm Not established 750 ppm 500 ppm 750 ppm 1 000 ppm
propane	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	See footnote <sup>a)</sup> 1 000 ppm 1 000 ppm 1 000 ppm 1 000 ppm 1 000 ppm	Not established Not established Not established Not established Not established Not established
isobutane <i>alkane (C2-C4)</i> <i>aliphatic hydrocarbon gas</i>	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	See footnote <sup>a)</sup> Not established 1 000 ppm 1 000 ppm 800 ppm Not established	Not established Not established Not established Not established Not established Not established
n-butyl acetate	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	150 ppm 150 ppm 150 ppm 20 ppm 150 ppm 150 ppm	Not established Not established 200 ppm 200 ppm Not established 200 ppm
heptan-2-one <i>methyl amyl ketone</i>	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	50 ppm 100 ppm 50 ppm 50 ppm 25 ppm 50 ppm	Not established Not established Not established Not established Not established Not established

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<b>Chemical Name</b>	<b>Country/ Provinces</b>	<b>Long Term Exposure Limits (PEL)</b>	<b>Short Term Exposure Limits (STEL)</b>
1-methoxy-2-propanol acetate	ACGIH	Not established	Not established
	U.S.A. OSHA PEL	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 ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from RTECS<sup>2</sup> database and 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) Refer to the ACGIH Appendix F: Minimum Oxygen Content for Asphyxia TLV Basis

**Engineering Controls**
**Ventilation**

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

**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 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 that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

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**General Hygiene Considerations**

Wash hands thoroughly with water and soap after handling.

**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Liquid, in an aerosol format	<b>Lower Flammability Limit</b> <sup>c)</sup>	2%
<b>Appearance</b>	Dark grey	<b>Upper Flammability Limit</b> <sup>c)</sup>	13%
<b>Odor</b>	Acetone-like	<b>Vapor Pressure @21 °C</b>	10 kPa [78 mmHg]
<b>Odor Threshold</b> <sup>a)</sup>	5 ppm	<b>Vapor Density</b>	≥2 (Air =1)
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	1.3
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Partially miscible
<b>Initial Boiling Point</b> <sup>a)</sup>	≥56 °C [≥132 °F]	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point</b> <sup>a)</sup>	-17 °C [1.4 °F]	<b>Auto-ignition Temperature</b> <sup>b)</sup>	≥315 °C [≥599 °F]
<b>Evaporation Rate</b>	Fast	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Flammable	<b>Viscosity @25 °C</b>	61 cP

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 liquid component LFL and UFL limits

**841AR****(AEROSOL)****Section 10: Stability and Reactivity**

<b>Reactivity</b>	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.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Temperatures above 50 °C [122 °F], open flames, and incompatible substances
<b>Incompatibilities</b>	Oxidizing agents, strong acids, peroxides, alkali or alkali earth metals
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

**Section 11: Toxicological Information****Summary of Effects and Symptoms by Routes of Exposure**

<b>Skin</b>	May cause skin redness, irritation, dry skin, and allergic reaction.
<b>Inhalation</b>	May cause cough, sore throat, drowsiness, dizziness, headaches, nausea, or unconsciousness.
<b>Eyes</b>	May cause redness, severe irritation, blurred vision, and pain.
<b>Ingestion</b>	May cause nausea, sore throat, abdominal pain, diarrhea, and vomiting (also see inhalation symptoms).
<b>Chronic</b>	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.

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**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
nickel	5 000 mg/kg Rat	Not available	Not available
acetone	5 800 mg/kg Rat	20 mL/kg Rabbit <sup>a)</sup>	16 000 ppm 4 h Rat <sup>a)</sup>
propane	Not applicable	Not applicable	>800 000 ppm 4 h Rat
dimethyl carbonate	>6.4 g/kg Rat & Mouse	>5 000 mg/kg Rabbit	Not available
isobutane	Not applicable	Not applicable	>570 000 ppm 4 h Rat
n-butyl acetate	>10 768 mg/kg Rat	>17 600 mg/kg Rabbit	390 ppm 4 h Rat
heptan-2-one	1 670 mg/kg Rat	12 600 µL/kg Rabbit	>16.7 mg/kg 4 h Rat
1-methoxy-2-propanol acetate	8 532 mg/kg Rat	>5 g/kg Rabbit	Not available

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA databases were consulted. The data from supplier SDS were also consulted.

a) Supplier safety data sheet

**Other Toxicological Effects**
**Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

**Serious eye damage/irritation**

Acetone is a known serious eye irritant. Contains mechanically abrasive particles.

**Sensitization**  
(allergic reactions)

Exposure to nickel may cause allergic skin reaction.

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**841AR****(AEROSOL)****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.

**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

**Mutagenicity**

(risk of heritable genetic effects)

Based on available data, the classification criteria are not met.

**Reproductive Toxicity**

(risk to sex functions)

Based on available data, the classification criteria are not met.

**Teratogenicity**

(risk of fetus malformation)

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Inhalation of acetone, n-butyl acetate, heptan-2-one 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.

**Aspiration hazard**

Based on available data, the classification criteria are not met. There is less than 10% category 1 components.

**Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

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.

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**841AR****(AEROSOL)**

The n-butyl acetate ingredient is an acute category 3 environmental toxicant (biodegradable, with minimal LC50 of 18 mg/L for fathead minnow).

Acetone, heptan-2-one, 1-methoxy-2-propanol are not classifiable as an environmental toxicant (with minimal LC50 of >100 mg/L).

- Acetone has a minimal LC50 96 h of 5 540 mg/L for *Oncorhynchus mykiss* (rainbow trout) and an EC50 48 h of 13 500 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).
- The 1-methoxy-2-propanol component has a minimal LC50 96 h of  $\geq 100$  mg/L *Salmo gairdneri* and an EC50 48 h of >500 mg/L for *Daphnia magna* (water flea).

There is insufficient data to classify dimethyl carbonate for aqueous toxicity.

**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.

**Biodegradability**

Solvent part expected to be biodegradable, but not the polymer or metal filler. The volatile solvent constituents will oxidize rapidly in air by photochemical reaction.

**Other Effects**

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

Actual VOC = 34% [456 g/L]

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**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 regulations** (Canadian Transportation of Dangerous Goods regulations);  
**USA CFR 49 Regulations** (Parts 100 to 185).

Limited Quantity



**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Limited Quantity



*FOR REFERENCE ONLY*

**UN number:** UN1950

**Shipping Name:** AEROSOL, flammable

**Class:** 2.1

**Packing Group:** Not applicable

**Marine Pollutant:** No

**Sea**

**Refer to IMDG regulations.**

Limited Quantity



*FOR REFERENCE ONLY*

**UN number:** UN1950

**Shipping Name:** AEROSOL, flammable

**Class:** 2.1

**Packing Group:** Not applicable

**Marine Pollutant:** No

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

**841AR**
**(AEROSOL)**
**Section 15: Regulatory Information**
**Canada**
**Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

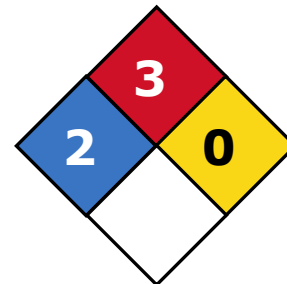
All hazardous ingredients are listed on the DSL.

**Hazardous Products Act (R.S.C., 1985, c. H-3)**

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

**USA**
**Other Classifications**
**HMIS® RATING**

<b>HEALTH:</b>	* 2
<b>FLAMMABILITY:</b>	3
<b>PHYSICAL HAZARD:</b>	0
<b>PERSONAL PROTECTION:</b>	

**NFPA® 704 CODES**

*Approximate HMIS and NFPA Risk Ratings Legend:*

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

**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 does not contain products that are listed as hazardous air pollutants.

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

This product contains nickel (CAS# 7440-02-0, reportable quantity = 100 lb) which is 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), which is subject to the CERCLA reporting requirements at the 5 000 lb (2 268 kg) threshold.

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**841AR****(AEROSOL)****TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, USA).

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

**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.

**Section 16: Other Information**

**SDS Prepared by** Regulatory Department

**Date of Review** 26 February 2020

**Supersedes** 06 May 2019

**Reason for Changes:** New emergency response number.

**Reference**

1) ACGIH 2017 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 (2017).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

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**841AR****(AEROSOL)****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](http://www.mgchemicals.com).

Email: [support@mgchemicals.com](mailto: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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