SUPER SHIELD NICKEL CONDUCTIVE COATING **841-AEROSOL**

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Super Shield™ Nickel Conductive Coating **SDS Code:** 841–Aerosol

Related Part # 841-340G

Recommended Use and Restriction on Use

Use: Nickel filled, electrically conductive coating for reducing EMI/RFI interference and providing electric continuity

Uses Advised Against: Not available

Details of Manufacturer or Importer

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

☎ +1-800-340-0772
FAX +1-800-340-0773
E-MAIL support@mgchemicals.com
WEB www.mgchemicals.com

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

☎ +1-905-331-1396
FAX +1-905-331-2682
E-MAIL info@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

Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria		Category	Signal Word	Pictograms
Flammable Aerosol		2	Warning	Flame
Gas under pressure		Liquefied gas	Warning	Gas cylinder
Specific Target Organ Toxicity	Repeated Exposure	1	Danger	Health
Carcinogenicity		2	Warning	Health
Reproductive Toxicity		2	Warning	Health
Sensitization	Skin	1	Warning	Exclamation
Eye irritation		2	Warning	Exclamation
Specific Target Organ Toxicity	Single Exposure	3	Warning	Exclamation
Environmental Hazard	Chronic Aqua. Tox.	3	*none*	*none*

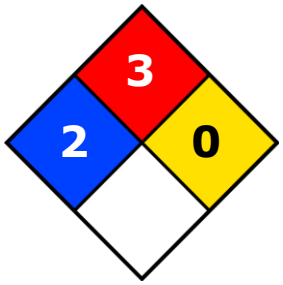
Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

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**
	H223: Flammable aerosol
	H280: Contains gas under pressure; may explode if heated
	H372: Causes damages to organs through prolonged or repeated exposure H351: Suspected of causing cancer H361: Suspected of damaging fertility or the unborn child
	H319: Causes serious eye irritation H317: May cause allergic skin reaction H336: May cause drowsiness and dizziness
	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.
P260	Do not breathe mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.

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Prevention	**Precautionary Statements**
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/eye protection.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
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.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor 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/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.
P337 + P313	If eye irritation persists: Get medical advice/attention.
Storage	**Precautionary Statements**
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].
P403	Store in well-ventilated place.
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

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
811-97-2	1,1,1,2-tetrafluoroethane	38%
67-64-1	acetone	27%
7440-02-0	nickel	20%
108-88-3	toluene	5%
110-19-0	isobutyl acetate	1%
110-43-0	heptan-2-one	1%
64-17-5	ethanol	1%
141-78-6	ethyl acetate	1%

Section 4: First-Aid Measures

Exposure Condition	*GHS Code/Symptoms/Precautionary Statements*
IF INHALED	P304 + P340, P312, P308 + P313
Immediate Symptoms	*drowsiness, dizziness, cough, headaches, nausea, unconsciousness*
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.
IF ON SKIN	P302 + P352, P333 + P313, P362 + P364, P308 + P313
Immediate Symptoms	*redness, irritation, dry skin*
Response	Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention.
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	*irritation, redness*
Response	Rinse cautiously with water for at least minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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IF SWALLOWED	P301 + P330, P331, P308 + P313
Immediate Symptoms	*nausea, sore throat, diarrhea, drowsiness, dizziness*
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	IF exposed or concerned: Get medical advice/attention.

Section 5: Fire-Fighting Measures

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 oxide fumes, halogenated compounds, and hydrogen fluorides.
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

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	Not applicable
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.
	Contaminated work clothing should not be allowed out of the workplace.
	Do not breathe mist/vapors/spray.
	Do not eat, drink, or smoke when using this product.
	Do not pierce or burn, even after use.
Handling	Do not spray on an open flame or other ignition source.
	Use only outdoors or in a well-ventilated area.
	Wear protective gloves/clothing/eye protection.
	Take off contaminated clothing and wash it before reuse.
	Wash hands thoroughly after handling.
	Avoid release to the environment.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].
	Store in well ventilated place.
	Store locked up.

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
1,1,1,2-tetrafluoroethane	*MG Chemicals* [a)] ACGIH U.S.A. OSHA PEL Canada	1 000 ppm Not established Not established Not established	Not established Not established Not established Not established

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Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
acetone	ACGIH	500 ppm	750 ppm
	U.S.A. OSHA PEL	1 000 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	1 000 ppm
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
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
2-heptanone	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
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	Not established	Not established
	Canada QC	400 ppm	Not established

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Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH[1], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database[2] 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) MG Chemicals recommended limit corresponding to prevalent international threshold values

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, 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.

Section 9: Physical and Chemical Properties

Physical State	Liquid	**Lower Flammability Limit** [c]	2%
Appearance	Steel grey	**Upper Flammability Limit** [c]	13%
Odor	Benzene like, sweetish	**Vapor Pressure @21 °C**	21 kPa [150 mmHg]
Odor Threshold	2 ppm	**Vapor Density**	≥2 (Air =1)
pH	Not available	**Specific Gravity @25 °C**	1.24
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 @40 °C**	Not available

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

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, and incompatible substances
Incompatibilities	Oxidizing agents, strong acids, peroxides, alkali or alkali earth metals
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

Eye contact, Ingestion, Inhalation, and Skin contact

Symptoms Summary

Eyes	May cause redness and severe irritation.
Skin	May cause skin redness, irritation, and dry skin.
Inhalation	May cause drowsiness, dizziness, cough, headaches, nausea, or 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 may affect the central nervous system and lead to hearing loss with co-exposure to loud noises. Inhalation of mist containing nickel particles of less than 0.1 mm may cause chronic inflammation, lung fibrosis, and accumulation of nickel particles. Ingestion or inhalation of paint material, mist, or vapor during pregnancy may increase the chances fetal death and developmental defects.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
1,1,1,2-tetrafluoroethane	Not available	Not available	1 500 g/m^3 4 h Rat
acetone	5 800 mg/kg Rat	>9 400 μL/kg Guinea pig	44 g/m^3 4 h Rat
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
isobutyl acetate	13 400 mg/kg Rat	>17 400 mg/kg Rabbit	>13.24 mg/L 6 h Rat
Heptan-2-one	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
ethyl acetate	5 620 mg/kg Rat	>20 000 μL/kg Rabbit	45 g/m^3 2 h Mouse

Note: Toxicity data from the RTECS[2] and ECHA databases were consulted. The data from supplier (M)SDS were also consulted.

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.

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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 present reproductive and developmental hazards at high doses (>13 000 μg/day)
Teratogenicity (risk of fetus malformation)	Harmful to unborn fetus in large doses
STOT-single exposure	Inhalation of toluene, acetone, isobutyl acetate, heptan-2-one, and ethyl acetate 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 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.

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 Oncorhhynchus 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 algea.
- 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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Acute Ecotoxicity

Available data doesn't give rise to classification as an acute ecotoxicant.

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.

Actual VOC = 10% [118 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 regulations (Canadian Transportation of Dangerous Goods regulations); **USA CFR 49 Regulations** (Parts 100 to 185).

Limited Quantity

UN number: UN1950
Shipping Name: AEROSOL, flammable
Class: 2.1
Packing Group: Not applicable
Marine Pollutant: No
Flash Point -17 °C [1.4 °F]

Section continued on the next page

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Limited Quantity

UN number: UN1950
Shipping Name: AEROSOL, flammable
Class: 2.1
Packing Group: Not applicable
Marine Pollutant: No
Flash Point -17 °C [1.4 °F]

Sea

Refer to IMDG regulations.

Limited Quantity

UN number: UN1950
Shipping Name: AEROSOL, flammable
Class: 2.1
Packing Group: Not applicable
Marine Pollutant: No
Flash 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

A – Aerosol Container; B5 – Flammable Aerosols;
D2A – Very Toxic (Carcinogenicity and Reproductive toxicity);
D2B – Toxic Other (Eye Irritation; Skin sensitization)

Section continued on the next page

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 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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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	24 August 2015
Supersedes	01 May 2013

Reason for Changes: Compliance adjustments to meet both HCS2012 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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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.

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