

SAI Global File #004008

Burlington, Ontario, Canada

841AR-LIQUID

SUPER SHIELD NICKEL CONDUCTIVE COATING

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Super Shield[™] Nickel Conductive Coating

SDS Code: 841AR-Liquid

Related Part # 841AR-15ML, 841AR-150ML, 841AR-900ML, 841AR-3.78L

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

+1-800-340-0772 FAX +1-800-340-0773 E-MAIL support@mqchemicals.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@mqchemicals.com

E-MAIL (Competent Person): sds@mqchemicals.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 F	Repeated Exposure	1	Danger	Health
Carcinogenicity		2	Warning	Health
Reproductive Toxicity		2	Warning	Health
Sensitization S	Skin	1	Warning	Exclamation
Eye Irritation		2	Warning	Exclamation
Specific Target Organ Toxicity S	Single Exposure	3	Warning	Exclamation
Environmental Hazard C	Chronic Aqua. Tox.	3	none	none

Note: The degree of severity is ranked within each hazard class from

Label Elements

Signal Word	DANGER
Pictograms	Hazard Statements
	H225: Highly flammable liquid and vapor
	H372: Causes damages to organs (lungs) through prolonged or repeated exposure by inhalation
	H351: Suspected of causing cancer
	H361: Suspected of damaging fertility or the unborn child
_	H317: May cause allergic skin reaction
	H319: Causes serious eye irritation
\	H336: May cause drowsiness or dizziness
none	H412: Harmful to aquatic life with long lasting effects
none	exposure by inhalation H351: Suspected of causing cancer H361: Suspected of damaging fertility or the unborn child H317: May cause allergic skin reaction H319: Causes serious eye irritation H336: May cause drowsiness or dizziness

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Date of Revision: 18 October 2015 / Ver. 1.00

^{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.



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Prevention	Precautionary Statements
P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, flames, and other ignition sources. No Smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof equipment.
P243	Take action to prevent static discharges.
P260 + P271	Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face 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
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
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/shower.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/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.
P391	Collect spillage.
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Storage	Precautionary Statements
P403 + P235	Store in well-ventilated place. Keep cool.
P405	Store locked up.
Disposal	Precautionary Statements

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)
7440-02-0	nickel	48%
67-64-1	acetone	13%
616-38-6	dimethyl carbonate	13%
110-43-0	heptan-2-one a)	10%
68410-97-9	distillates (petroleum), light distillate hydrotreating process, low-boiling	3%
108-65-6	1-methoxy-2-propanol acetate	2%

a) Also known as methyl amyl ketone (MAK)



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IF ON SKIN (or hair) P303 + P361 + P352, P333 + P313, P308 + P313, P363 Immediate Symptoms Response Take off immediately all contaminated clothing. Wash with plenty of water/shower. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse. IF INHALED P304 + P340 + P312, P308 + P313 Immediate Symptoms cough, drowsiness, dizziness, headaches, nausea, unconsciousness Response Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Immediate Symptomsredness, mild irritation, dry skinResponseTake off immediately all contaminated clothing. Wash with plenty of water/shower.If skin irritation or rash occurs: Get medical advice/attention.IF exposed or concerned: Get medical advice/attention.Wash contaminated clothing before reuse.IF INHALEDP304 + P340 + P312, P308 + P313Immediate Symptomscough, drowsiness, dizziness, headaches, nausea, unconsciousnessResponseRemove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
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Wash contaminated clothing before reuse. IF INHALED P304 + P340 + P312, P308 + P313 Immediate Symptoms cough, drowsiness, dizziness, headaches, nausea, unconsciousness Response Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
IF INHALED P304 + P340 + P312, P308 + P313 cough, drowsiness, dizziness, headaches, nausea, unconsciousness Response Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Immediate Symptoms cough, drowsiness, dizziness, headaches, nausea, unconsciousness Response Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Response Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Call a POISON CENTRE/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
IF IN EYES P305 + P351 + P338, P337 + P313
Immediate Symptoms irritation, redness, pain
Response Rinse cautiously with water for 15 minutes or more. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF SWALLOWED P301 + P330, P331, P308 + P313
Immediate Symptoms nausea, sore throat, abdominal pain, diarrhea, drowsiness, dizziness
Response Rinse mouth. Do NOT induce vomiting.
IF exposed or concerned: Get medical advice/attention.



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Section 5: Fire-Fighting Measures

Extinguishing Media In case of fire: Use dry chemical, carbon dioxide, chemical foam,

or water spray to extinguish.

Use water spray to cool containers.

Specific Hazards 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.

Prevent fire-fighting wash from entering waterway or sewer

system.

Combustion Products Produces carbon oxides (CO,CO₂), nickel oxides fumes, and

nitrogen oxides (NOx).

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

Contain with inert 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.



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Section 7: Handling and Storage

Prevention Keep out of reach of children.

Keep away from heat, hot surfaces, sparks, 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

equipment. Take action to prevent static discharges.

Do not breathe breathing mist/vapors/spray. Use only outdoors or in a

well-ventilated area. Keep container tightly closed.

Do not eat, drink, or smoke when using this product.

Handling Wear protective gloves/clothing/eye protection.

Take off contaminated clothing and wash it before reuse. Contaminated

work clothing should not be allowed out of the workplace.

Wash hands thoroughly after handling.

Avoid release to the environment. Collect spillage.

Storage Store in well-ventilated place. Keep cool.

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)
nickel	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	1.5 mg/m ³ 1 mg/m ³ 1.5 mg/m ³ 0.05 mg/m ³ 1 mg/m ³ 1 mg/m ³	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 U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC ACGIH	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 Not established
heptan-2-one methyl amyl ketone	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
distillates, petrol, light dist. hydrotreat process, low-boil.	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	1 500 mg/m ³ 2 000 mg/m ³ 1 590 mg/m ³ 1 500 mg/m ³ 1 500 mg/m ³ 1 370 mg/m ³	Not established Not established Not established Not established Not established Not established
1-methoxy-2-propanol acetate	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	Not established 50 ppm Not established 50 ppm 50 ppm Not established	Not established Not established Not established 75 ppm 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 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.

Engineering Controls

Ventilation

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

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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 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 ^{b)}	2%	
Appearance	Dark grey	Upper Flammability Limit ^{b)}	13%	
Odor	Acetone-like	Vapor Pressure b) @20 °C	11 kPa [86 mmHg]	
Odor Threshold ^{a)}	5 ppm	Vapor Density	≥2 (Air =1)	
рH	Not available	Specific Gravity @25 °C	1.7	
Freezing/Melting Point	Not available	Solubility in Water	Partially miscible	
Boiling Point a)	56 °C [132 °F]	Partition Coefficient	Not available	
Flash Point a)	-17 °C [1.4 °F]	Auto-ignition Temperature ^{c)}	≥315 °C [≥599 °F]	
Evaporation Rate	Fast	Decomposition Temperature	Not available	
Flammability (solid, gas)	Not available	Viscosity @25 °C	1460 cP	

a) Values based on acetone component.

b) Lower and Upper Explosive Limits, and vapor pressure of mixture calculated using Le Chatelier principle and component physical values.

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



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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

Ignition sources, open flames, excessive heat, and incompatible

Avoid

substances

Incompatibilities

Oxidizing agents, strong acids, , acid anydrides

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

Inhalation, Eye contact, Skin contact, and Ingestion

Symptoms Summary

Eyes Causes redness, severe irritation, and pain.

Inhalation May cause cough, drowsiness, dizziness, headaches, nausea, or

unconsciousness.

Ingestion May cause nausea, sore throat, abdominal pain, and diarrhea (also see

inhalation symptoms).

Skin Causes skin redness, mild irritation, and dry skin.

Chronic Prolonged or repeated exposure may cause skin dryness, cracking, as well

as defatting the skin. Exposure to silver powder may also cause argyria,

an irreversible blue-grey discoloration of 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	Not	Not
	Rat	available	available
acetone	5 800 mg/kg	20 mL/kg	16 000 ppm
	Rat	Rabbit ^{a)}	4 h Rat ^{a)}
dimethyl carbonate	>6.4 g/kg	>5 000 mg/kg	Not
	Rat & Mouse	Rabbit	available
heptan-2-one	1 670 mg/kg	12 600 μL/kg	>16.7 mg/kg
	Rat	Rabbit	4 h Rat (vapor)
distillates (petrol.), lt dist.	Not	Not	Not
hydrotreat. process, low-boil.	available	available	available
1-methoxy-2-propanol acetate	8 532 mg/kg	>5 g/kg	Not
	Rat	Rabbit	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.

a) Supplier safety data sheet

Other Toxicological Effects

Skin corrosion/irritationBased on available data, the classification criteria are

not met.

Serious eye damage/irritation Acetone is a known serious eye irritant. Contains

mechanically abrasive particles.

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Sensitization

(allergic reactions)

Carcinogenicity (risk of cancer)

Exposure to nickel may cause allergic skin reaction.

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)

The distillates, pet, It dist hydrotreat process, low-boil. (CAS# 68410-97-9) present some evidence of adverse effects on sexual function and fertility based on animal

experiments.

Teratogenicity

(risk of fetus malformation)

Not classifiable due to lack of data

STOT-single exposure Inhalation of acetone, heptan-2-one,

and distillates, pet, It dist hydrotreat process, low-boil.

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.

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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 silver 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.

The "distillates (petroleum), light distillate hydrotreating process, low-boiling" is an chronic category 2 aquatic toxicant with a LC50 96 h of 8.2 mg/L for Oncorhynchus mykiss (rainbow trout) and an EC50 48 h of 4.5 mg/L for Daphnia magna (water flea), and an EC50 96 h of 3.7 mg/L for Pseudokirchneriella subcapitata (green algae).

Acetone, heptan-2-one, and 1-methoxy-2-propanol acetate 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).
- 1-Methoxy-2-propanol has a minimal LC50 96 h of ≥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. Collect spillage.

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.



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Other Effects

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

Actual VOC = 13% [287 g/L]; Regulated VOC = 553 g/L

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 DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Sizes 5 L and under

Limited Quantity



Sizes greater than 5 L

UN number: UN1263 Shipping Name: PAINT

Class: 3

Packing Group: II Marine Pollutant:No

Flash Point ≥-17 °C [1.4 °F]



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 1 L 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: No

Flash Point ≥-17 °C [1.4 °F]



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Sea

Refer to IMDG regulations.

Sizes 5 L and under

Limited Quantity



Sizes greater than 5 L

UN number: UN1263 Shipping Name: PAINT

Class: 3

Packing Group: II Marine Pollutant: No

Flash Point ≥-17 °C [1.4 °F]



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

Section 15: Regulatory Information

Canada

WHMIS 1988 Classification





B2 - Flammable Liquid;

D2A - Very Toxic (Reproductive Toxicity; Carcinogenicity);

D2B - Toxic Other (Eye Irritant; Skin Sensitization)

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.

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USA

Other Classifications

HMIS® RATING

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





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 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 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** 18 October 2015 **Supersedes** Not applicable

Reason for Changes: New product classified 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

ΕU European Union

EC50 Half maximal effective concentration EL50 Half maximal effective loading

International Agency for Research on Cancer IARC

No observable effect loading ratio NOELR National Toxicology Program NTP

Globally Harmonized System of Classification of Labeling of Chemicals GHS

LC50 Lethal Concentration 50%

Lowest published lethal concentration LCLo

Lethal Dose 50% LD50

Occupational Exposure Limit OEL PEL Permissible Exposure Limit

Safety Data Sheet SDS

Short-Term Exposure Limit STEL

TCLo Lowest published toxic concentration

Time Weighted Average TWA 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.

Head Office

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