

422C

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** 422C**Other Means of Identification:** Silicone Conformal Coating**Related Part #** 422C-55ML, 422C-55MLCA, 422C-945ML, 422C-3.78L, 422C-19L

### Recommended Use and Restriction on Use

**Use:** Conformal coating**Uses Advised Against:** Not applicable

### 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

### 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 service  
CANADA—Call CANUTEC collect at **+1-613-996-6666** or **\*666** on cellular phones

**422C**
**Section 2: Hazard(s) Identification**
**Classification of Hazardous Chemical**
**GHS Categories**

Criteria	Category	Signal Word	Pictograms
Eye Damage	1	Danger	Corrosion
Flammable Liquid	2	Danger	Flame
Specific Target Organ Toxicity Single	3	Warning	Exclamation

*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>
	H318: Causes serious eye damage
	H225: Highly Flammable liquid and vapor
	H336: May cause drowsiness or dizziness
<b>Prevention</b>	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.

*Section continued on the next page*

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<b>Prevention</b>	<b>Precautionary Statements</b>
P241	Use explosion-proof electrical, ventilating, and lighting equipment.
P243	Take action to prevent static discharges.
P280	Wear protective gloves, protective clothing, and eye protection.
P261	Avoid breathing mist, vapors, and spray.
P271	Use only outdoors or in a well-ventilated area.
<b>Response</b>	<b>Precautionary Statements</b>
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
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>
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents 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

**422C**
**Section 3: Composition/Information on Ingredients**

CAS #	Chemical Name	%(weight)
67-64-1	acetone	39%
123-86-4	n-butyl acetate	25%
2530-83-8	silane, trimethoxy[3-(oxiranylmethoxy)propyl]	3%
78-83-1	isobutanol	<1%
108-88-3	toluene	<0.1%

**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
<b>IF IN EYES</b>	P305 + P351 + P338, P310
<b>Immediate Symptoms</b>	<i>redness, pain, blurred vision, possible corneal damage</i>
<b>Response</b>	Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>IF INHALED</b>	P304 + P340, P312
<b>Immediate Symptoms</b>	<i>cough, sore throat, headache, dizziness, drowsiness, shortness of breath</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
<b>IF ON SKIN (or hair)</b>	P303 + P361 + P353
<b>Immediate Symptoms</b>	<i>low toxicity: dry skin, redness</i>
<b>Response</b>	Take off immediately all contaminated clothing. Rinse skin with water or shower.
<b>IF SWALLOWED</b>	P301 + P330 + P331
<b>Immediate Symptoms</b>	<i>low toxicity: abdominal pain, nausea, diarrhea, drowsiness, dizziness, vomiting, shortness of breath</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.

**422C****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>	May produces irritating and toxic fumes in fires or in contact with hot surfaces.  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> ), silicon oxides (SO <sub>2</sub> ), formaldehyde and other toxic fumes.
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Avoid breathing the mist, spray or vapors. Remove or keep away all sources of ignition or extreme heat.
<b>Environmental Precautions</b>	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
<b>Containment Methods</b>	Contain with inert and nonflammable absorbent (such as soil, sand, vermiculite).
<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>RECOMMENDATION:</b> Use a grounded stainless steel or carbon steel container.
<b>Disposal Methods</b>	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, open flames and other ignition sources. No smoking.

Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area. Keep container tightly closed.

Take action to prevent static discharges. Use explosion-proof electrical, ventilating, and lighting equipment.

**Handling**

Ground and bond container and receiving equipment.

Wash hand thoroughly after handling.

Wear protective gloves, protective clothing, and eye protection.

**Storage**

Store in a well-ventilated place. Keep cool.

Store locked up.

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

Chemical Name	Country/Province	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

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**422C***Continued...*

Chemical Name	Country/Province	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
n-butyl acetate	ACGIH	150 ppm	200 ppm
	U.S.A. OSHA PEL	150 ppm	Not established
	Canada AB	150 ppm	200 ppm
	Canada BC	20 ppm	Not established
	Canada ON	150 ppm	200 ppm
	Canada QC	150 ppm	200 ppm
isobutanol	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	50 ppm	Not established
	Canada QC	50 ppm	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

*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 the RTECS database<sup>2</sup> and from suppliers' SDSs 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).

**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.

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

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**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.

### General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

### Section 9: Physical and Chemical Properties

<b>Physical State</b>	Liquid	<b>Lower Flammability Limit</b> <sup>b)</sup>	2.4%
<b>Appearance</b>	Clear	<b>Upper Flammability Limit</b> <sup>b)</sup>	12.8%
<b>Odor</b>	Ester-like	<b>Vapor Pressure @20 °C</b> <sup>b)</sup>	184 hPa [138 mmHg]
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	<2.01
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	0.92
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Immiscible
<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>c)</sup>	420 °C [788 °F]
<b>Evaporation Rate</b>	<1 (ButAc = 1)	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Highly flammable	<b>Viscosity @25 °C</b>	<20.5 mm <sup>2</sup> /s

a) Values based on acetone.

b) Values based on Raoult's Law and Le Chatelier's principle.

c) Values based on n-butyl acetate.



**422C****Section 10: Stability and Reactivity**

<b>Reactivity</b>	Not available
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures.
<b>Conditions to Avoid</b>	Direct sunlight, high temperatures, open flames, sparks and incompatible substances.
<b>Incompatibilities</b>	Strong oxidizing agents, strong bases, strong reducing agents, acids
<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>Eyes</b>	Causes redness, pain, blurred vision and possible corneal damage.
<b>Skin</b>	Low toxicity: May cause dry skin and redness.
<b>Inhalation</b>	May cause coughing, sore throat, headache, dizziness, drowsiness, and shortness of breath.
<b>Ingestion</b>	Low toxicity: May cause abdominal pain, nausea, diarrhea, drowsiness, dizziness, vomiting, and shortness of breath.
<b>Chronic</b>	Prolonged or repeated exposure may cause skin may cause skin dryness and cracking.

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### Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
acetone	5 800 mg/kg Rat	20 mL/kg Rabbit <sup>a)</sup>	16 000 ppm 4 h Rat
n-butyl acetate	>10 768 mg/kg Rat	>17 600 mg/kg Rabbit	390 ppm 4 h Rat
silane, trimethoxy[3-(oxiranylmethoxy)propyl]	Not available	Not available	Not available
isobutanol	2 830 mg/kg Rat	2 460 mg/kg Rabbit	Not available
toluene	5 580 mg/kg Rat	12 124 mg/kg Rabbit	49 g/m <sup>3</sup> 4 h Rat

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

### Other Toxicological Effects

**Skin Corrosion/Irritation**

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

**Serious Eye Damage/Irritation**

Silane, trimethoxy[3-(oxiranylmethoxy) propyl]- and isobutanol can cause eye damage.

**Sensitization**  
(allergic reactions)

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

**Carcinogenicity**  
(risk of cancer)

None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.

**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**

The ingredients acetone and n-butyl acetate can affect the central nervous system by inhalation causing drowsiness or dizziness.

**STOT-Repeated Exposure**

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

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**422C****Aspiration Hazard**

Based on available data, the classification criteria are not met. There are no cat 1 substances, and the kinematic viscosity is  $<20.5 \text{ mm}^2/\text{s}$  at  $40^\circ\text{C}$ .

**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.

The ingredients acetone, n-butyl acetate, silane, trimethoxy[3-(oxiranylmethoxy) propyl], and isobutanol are not classified as an environmental hazard according to GHS criteria.

**Acute Ecotoxicity**

Available toxicity data does not meet classification thresholds.

**Chronic Ecotoxicity**

Available toxicity data does not meet classification thresholds.

**Other Effects**

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

VOC with low vapor pressure exemption = 30% [271 g/L]

**Section 13: Disposal Information**

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

## 422C

### 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  
422C-55ML, 422C-945ML,  
422C-3.78L

**Limited Quantity**



Sizes greater than 5 L  
422C-19L

**UN number:** UN1263  
**Shipping Name:** PAINT  
**Class:** 3  
**Packing Group:** II  
**Marine Pollutant:** No



#### Air

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

Sizes 0.5 L and under  
422C-55ML

**Limited Quantity**

Total Net QTY per  
package 1 L



Sizes up to 5 L (Passenger), 60 L (Cargo)  
422C-945ML, 422C-3.78L, 422C-19L

**UN number:** UN1263  
**Shipping Name:** PAINT  
**Class:** 3  
**Packing Group:** II  
**Marine Pollutant:** No



#### Sea

**Refer to IMDG regulations.**

Sizes 5 L and under  
422C-55ML, 422C-945ML,  
422C-3.78L

**Limited Quantity**



Packing Instr. P001

Sizes greater than 5 L  
422C-19L

**UN number:** UN1263  
**Shipping Name:** PAINT  
**Class:** 3  
**Packing Group:** II  
**Marine Pollutant:** No



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

**422C****Section 15: Regulatory Information****Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

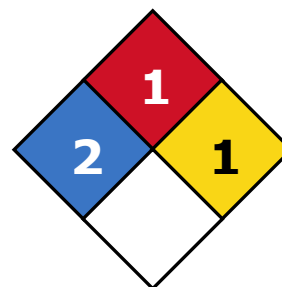
All hazardous ingredients are listed on the DSL.

**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>	<b>* 2</b>
<b>FLAMMABILITY:</b>	<b>1</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<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 substances that are listed as hazardous air pollutants.

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

This product contains n-butyl acetate (CAS# 123-86-4), acetone (CAS# 67-64-1), isobutanol (CAS# 78-83-1), which is subject to the CERCLA reporting requirements at the 5 000 lb (2 268 kg) threshold.

This product contains toluene (CAS# 108-88-3; reportable quantity = 1 000 lb), which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

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## 422C

### **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 toluene, which is listed as reproductively toxic in California.

## 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

<b>SDS Prepared by</b>	MG Chemical's Regulatory Department
<b>Date of Creation</b>	27 February 2020
<b>Supersedes</b>	23 January 2020
<b>Reason for Changes:</b>	Update to emergency contact information.

### 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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**422C****Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
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
Wt	Weight

**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)

<b>Mailing Addresses</b>	Manufacturing & Support	Head Office
	1210 Corporate Drive	9347-193rd Street
	Burlington, Ontario, Canada	Surrey, British Columbia, Canada
	L7L 5R6	V4N 4E7

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