Safety Data Sheet

according to WHMIS 2023 and HCS 2024

Date of issue 09/09/2025 Version number 4.01 Revision: 08/29/2025

1 Identification

· **Product identifier**

· **Trade name: 419E**

· **Other Means of Identification:** Premium Acrylic Conformal Coating (Aerosol)

· **Related Part Number:** 419E-Aerosol, 419E-340G

· **Application of the substance / the mixture** Conformal Coating

· **Uses advised against** Not available

· **Details of the supplier of the safety data sheet**

·

Manufacturer/Supplier:
MG Chemicals (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 800-340-0772
+(1) 905-331-1396
info@mgchemicals.com

·

Distributor:
Masline
511 Clinton Ave S
Rochester, New York 14620
United States
+(1) 586-546-5373

· **Information department:** sds@mgchemicals.com

· **Emergency telephone number:**

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA-Call 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

* 2 Hazard identification

· **Classification of the substance or mixture**

Aerosols, Section 2.3.1 – Category 2	H223 Flammable aerosol.
	H229 Pressurized container: may burst if heated.
Eye damage/irritation – Category 2A	H319 Causes serious eye irritation.
Specific target organ toxicity (single exposure) – Category 3	H336 May cause drowsiness or dizziness.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

(Contd. of page 1)

· **Hazard pictograms**

GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**
dimethyl ether
n-butyl acetate
Butan-2-one
isobutyl isobutyrate

· **Hazard statements**
H223 Flammable aerosol.
H229 Pressurized container: may burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing mist, vapors or spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, and eye protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice.
P403	Store in a well-ventilated place.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501	Dispose of contents and container in accordance with local, regional, and national regulations.

· **Other hazards**
Warning! May displace oxygen and cause rapid suffocation.
Repeated exposure may cause skin dryness or cracking.

* 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 3)

(Contd. of page 2)

· **Dangerous components:**		
115-10-6	dimethyl ether	40% w/w
123-86-4	n-butyl acetate	33% w/w
78-93-3	Butan-2-one	12% w/w
97-85-8	isobutyl isobutyrate	6% w/w
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	0.3% w/w

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:**
Rinse cautiously with water for 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use water spray to cool containers.

· **Special hazards arising from the substance or mixture**
Vapors are heavier than air. Vapors may travel to sources of ignition near the ground. They can cause flash fire or ignite explosively.
The liquid may float on water and ignite.
Prevent fire-fighting wash from entering waterway or sewer system.
Aerosols containers may erupt with force at temperatures above 50 °C [122 °F].
· **Hazardous combustion products:** Carbon Oxides (COx)

(Contd. on page 4)

(Contd. of page 3)

· **Advice for firefighters**
· **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Remove or keep away all sources of extreme heat or open flames.
Avoid breathing mist, spray, or vapors.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Collect liquid in a sealable, chemical-resistant container.
Wash residue with a paper towel and place dirty towels in container.
Use soap and water to remove the last traces of residue.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Wear protective gloves and eye protection.
Wash hands and exposed skin thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Avoid breathing mist, spray, or vapors.
· **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
Keep in a dry and clean area, away from incompatible substances
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
Do not expose to temperatures exceeding 50 °C [122 °F].

(Contd. on page 5)

(Contd. of page 4)

Store locked up.

· **Specific end use(s)** See section 1.2

8 Exposure controls/ Personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
115-10-6 dimethyl ether	
EL (Canada)	TWA: 1000 ppm
WEEL (USA)	TWA: 1000 ppm
123-86-4 n-butyl acetate	
EL (Canada)	STEL: 150 ppm TWA: 50 ppm
EV (Canada)	STEL: 950 mg/m³, 200 ppm TWA: 710 mg/m³, 150 ppm
PEL (USA)	TWA: 710 mg/m³, 150 ppm
REL (USA)	STEL: 950 mg/m³, 200 ppm TWA: 710 mg/m³, 150 ppm
TLV (USA)	STEL: 712 mg/m³, 150 ppm TWA: 238 mg/m³, 50 ppm
78-93-3 Butan-2-one	
EL (Canada)	STEL: 100 ppm TWA: 50 ppm R, Skin
EV (Canada)	STEL: 885 mg/m³, 300 ppm TWA: 590 mg/m³, 200 ppm
PEL (USA)	TWA: 590 mg/m³, 200 ppm
REL (USA)	STEL: 885 mg/m³, 300 ppm TWA: 590 mg/m³, 200 ppm
TLV (USA)	STEL: 150 ppm TWA: 75 ppm BEI, Skin

· **Ingredients with biological limit values:**	
78-93-3 Butan-2-one	
BEI (USA)	2 mg/L Medium: urine Time: end of shift Parameter: Methyl ethyl ketone (nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

(Contd. on page 6)

(Contd. of page 5)

· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Advice should be sought from respiratory protection specialists.
If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.
· **Protection of hands:**
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.


Protective gloves: EN374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**


Safety glasses or tightly sealed goggles: EN 166

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Physical state**	Aerosol
· **Form:**	Liquid, in aerosol format.
· **Color:**	Colorless
· **Odor:**	Ester-like
· **Odor threshold:**	Not determined.
· **Melting point/Melting range:**	Undetermined.
· **Boiling point/Boiling range:**	≥80 °C (≥176 °F)

(Contd. on page 7)

(Contd. of page 6)

· **Flammability:**	Flammable.
· **Explosion limits:**	
· **Lower:**	1.6 Vol %
· **Upper:**	10.6 Vol %
· **Flash point:**	-9 °C (15.8 °F)
· **Auto igniting:**	200 °C (392 °F)
· **Decomposition temperature:**	Not determined.
· **pH-value:**	Not determined.
· **Viscosity:**	
· **Kinematic:**	Not determined.
· **Dynamic:**	Not determined.
· **Solubility in / Miscibility with**	
· **Water:**	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	35 hPa (26.3 mm Hg)
· **Density:**	Not available
· **Relative density at 20 °C (68 °F):**	0.9
· **Vapor density (air=1):**	Not determined.
· **Particle characteristics**	Not applicable.

· **Other information**

· **Important information on protection of health and environment, and on safety.**

· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Organic solvents:**	85.00 %
· **VOC content:**	85,000 % 850.0 g/l / 7.09 lb/gal
· **Solids content:**	8.7 %
· **Evaporation rate**	Not applicable.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **Chemical stability** Chemically stable at normal temperatures and pressures.

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Temperatures above 50 °C, open flames, and incompatible substances

· **Incompatible materials:**
Strong oxidizing agents
Strong acids
Strong reducing agents

(Contd. on page 8)

(Contd. of page 7)

Strong bases

· **Hazardous decomposition products:**
No dangerous decomposition products known.
Hazardous combustion products: see section 5.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
115-10-6 dimethyl ether		
Inhalative	LC50/ 4 h	308 g/m3 (rat)
123-86-4 n-butyl acetate		
Oral	LD50	>10,768 mg/kg (rat)
Dermal	LD50	>17,600 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/L (rat)
78-93-3 Butan-2-one		
Oral	LD50	2,737 mg/kg (rat)
Dermal	LD50	6,480 mg/kg (rabbit)
Inhalative	LC50/ 8 h	23,500 mg/m3 (rat)
97-85-8 isobutyl isobutyrate		
Oral	LD50	7,712 mg/kg (rat)
Dermal	LD50	10,626 mg/kg (rabbit)
2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane		
Oral	LD50	8,025 mg/kg (rat)
Dermal	LD50	4,250 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the eye:** Irritating effect.

· **Summary of effects and symptoms by route of exposure**
· **Eyes:**
redness
redness, serious irritation
pain
· **Skin:**
dry skin
redness
· **Inhalation:**
cough
sore throat
headache
dizziness or drowsiness
drowsiness

(Contd. on page 9)

(Contd. of page 8)

· **Swallowed:**
nausea
vomiting

· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Prolonged or repeated exposure may defat skin and cause skin dryness and cracking, and local redness and discomfort.
No further relevant informtion available.

· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **NTP (National Toxicology Program)**
None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
123-86-4 n-butyl acetate	
LC50 96h	18 mg/L (minnow)

· **Persistence and degradability**
Expected to be biodegradable.
The volatile solvent constituents will oxidize rapidly in air by photochemical reaction.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:** This material and its container must be disposed of as hazardous waste.

(Contd. on page 10)

(Contd. of page 9)

· **Uncleaned packagings:**
· **Recommendation:**
Containers may still present a chemical hazard/ danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**	
· **DOT/TDG, IMDG, IATA**	UN1950
· **UN proper shipping name**	
· **DOT/TDG, IATA**	Aerosols, flammable
· **IMDG**	AEROSOLS
· **Transport hazard class(es)**	
· **DOT/TDG (Transport dangerous goods):**	

· **Class**	2.1 Gases
· **Label**	2.1
· **IMDG, IATA**	

· **Class**	2.1 Gases
· **Label**	2.1
· **Packing group**	
· **DOT/TDG, IMDG, IATA**	Not applicable
· **Environmental hazards:**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

(Contd. on page 11)

(Contd. of page 10)

· **Transport/Additional information:**


Limited Quantity

419E-340G

· **DOT/TDG**

· **Quantity limitations**	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg

· **IMDG**

· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity

· **Special precautions for user** Not applicable.

· **Hazard identification number (Kemler code):**	-
· **EMS Number:**	F-D,S-U
· **Stowage Code**	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· **Segregation Code**	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

· **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **OSHA Hazard Communication Standard (29 CFR Part 1900)**
The safety data sheet and label comply with HCS 2024.

· **Hazardous Products Act (R.S.C., 1985, c. H-3)**
The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2023.

(Contd. on page 12)

(Contd. of page 11)

· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.

· **Hazardous Air Pollutants**
None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **TLV (Threshold Limit Value)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**
All ingredients are listed.

· **Canadian Non-Domestic Substances List (NDSL)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**	
123-86-4	n-butyl acetate
78-93-3	Butan-2-one

· **HMIS-ratings (scale 0 - 4)**
Health = * 2
Fire = 3
Reactivity = 0

(Contd. on page 13)

(Contd. of page 12)

· **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.

· **Per- and polyfluoroalkyl substances (PFAS)**
None of the ingredients is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Regulatory department
· **Contact:** sds@mgchemicals.com
· **Version number of previous version:** 4.00
· **Date of preparation** 09/09/2025
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
· *** Data compared to the previous version altered.**