Safety Data Sheet

according to WHMIS 2022 and HCS 2024

Date of issue 10/22/2026 Version number 2.00 Revision: 10/22/2026

1 Identification

· **Product identifier**

· **Trade name: 844AR**

· **Other Means of Identification:** ESD Safe Coating

· **Related Part Number:** 844AR-Liquid, 844AR-900ML, 844AR-3.78L

· **Application of the substance / the mixture** Static protection for electronic components

· **Uses advised against** Not available

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

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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

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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**

Flammable liquids – Category 2	H225 Highly flammable liquid and vapour.
Eye damage/irritation – Category 1	H318 Causes serious eye damage.
Carcinogenicity – Category 2	H351 Suspected of causing cancer. Route of exposure: Inhalation.
Specific target organ toxicity (single exposure) – Category 3	H336 May cause drowsiness or dizziness.

· **Additional information:** The full text of the classification and labeling elements mentioned is given in Section 16.

· **Label elements**

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

· **Hazard pictograms**

GHS02 GHS05 GHS07 GHS08

· **Signal word** Danger

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· **Hazard-determining components of labeling:**
acetone
2-methoxy-1-methylethyl acetate
butan-1-ol
titanium dioxide
· **Hazard statements**
H225 Highly flammable liquid and vapour.
H318 Causes serious eye damage.
H351 Suspected of causing cancer. Route of exposure: Inhalation.
H336 May cause drowsiness or dizziness.
· **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, open 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.
P261	Avoid breathing mist, vapors or spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, and eye protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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.
P310	Immediately call a POISON CENTER or doctor.
P308+P313	IF exposed or concerned: Get medical advice.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local, regional, and national regulations.

· **Other hazards** 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.

· **Dangerous components:**

67-64-1	acetone	47.0% w/w
616-38-6	dimethyl carbonate	27.0% w/w
108-65-6	2-methoxy-1-methylethyl acetate	5.0% w/w
71-36-3	butan-1-ol	3.0% w/w
13463-67-7	titanium dioxide	1.2% w/w

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Remove person to fresh air and keep comfortable for breathing.

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If feeling unwell: Call a POISON CENTRE or doctor.
If exposed or concerned: Get medical advice or attention

· **After skin contact:**
Take off immediately all contaminated clothing.
Wash with plenty of soap and water.
If exposed or concerned: Get medical advice or attention.

· **After eye contact:**
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.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
If exposed or concerned: Get medical advice or attention.

· **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.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **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.
Prevent fire-fighting wash from entering waterway or sewer system.

· **Hazardous combustion products:**
Carbon Oxides (COx)
other toxic fumes

· **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**
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 or into surface or ground water.

· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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.

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· **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, clothing 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.
Use only outdoors or in a well-ventilated area.

· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use explosion-proof apparatus and fittings and spark-proof tools.
Ground and bond container and receiving equipment.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a well-ventilated place. Keep cool.

· **Information about storage in one common storage facility:** Not required

· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
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:**	
67-64-1 acetone	
EL (Canada)	STEL: 500 ppm TWA: 250 ppm
EV (Canada)	STEL: 750 ppm TWA: 500 ppm
PEL (USA)	TWA: 2400 mg/m³, 1000 ppm
REL (USA)	TWA: 590 mg/m³, 250 ppm
TLV (USA)	STEL: 1187 mg/m³, 500 ppm TWA: 594 mg/m³, 250 ppm A4, BEI
108-65-6 2-methoxy-1-methylethyl acetate	
EL (Canada)	STEL: 75 ppm TWA: 50 ppm
EV (Canada)	TWA: 270 mg/m³, 50 ppm
WEEL (USA)	TWA: 50 ppm

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71-36-3 butan-1-ol	
EL (Canada)	TWA: 15 ppm Ceiling: 30 ppm
EV (Canada)	TWA: 20 ppm
PEL (USA)	TWA: 300 mg/m³, 100 ppm
REL (USA)	Ceiling: 150 mg/m³, 50 ppm Skin
TLV (USA)	TWA: 61 mg/m³, 20 ppm
13463-67-7 titanium dioxide	
EL (Canada)	TWA: 10* 3** mg/m³ IARC 2B, +total dust;**resp. fraction
EV (Canada)	TWA: 10 mg/m³ total dust
PEL (USA)	TWA: 15* mg/m³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	TWA: 0.2* 2.5** mg/m³ resp. fraction, *nanoscale,**finescale, A3

· **Ingredients with biological limit values:**	
67-64-1 acetone	
BEI (USA)	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

· **Additional information:**
The lists that were valid during the creation were used as basis.
Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· **Exposure controls**
· **Appropriate engineering controls** Keep airborne concentrations below exposure limits.
· **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:**
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.
For over-exposures up to 10 x OEL of mist, vapors, and 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.
Advice should be sought from respiratory protection specialists.
· **Protection of hands:**

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

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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**	Liquid
· **Form:**	Low viscosity
· **Color:**	Dark grey
· **Odor:**	Solvent-like
· **Odor threshold:**	Not available
· **Boiling point/Boiling range:**	56 °C (132.8 °F)
· **Flammability:**	Highly flammable.
· **Explosion limits:**	
· **Lower:**	2 Vol %
· **Upper:**	13 Vol %
· **Flash point:**	-17 °C (1.4 °F)
· **Auto igniting:**	330 °C (626 °F)
· **Viscosity:**	
· **Kinematic at 20 °C (68 °F):**	<20.5 mm²/s
· **Solubility in / Miscibility with**	
· **Water:**	Partly miscible.
· **Partition coefficient (n-octanol/water):**	Not available
· **Vapor pressure at 20 °C (68 °F):**	167 hPa (125.3 mm Hg)
· **Relative density at 20 °C (68 °F):**	0.94
· **Vapor density (air=1):**	>2.01
	>2.01
· **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:**	55.00 %
· **VOC content:**	82.000 %
	80.0 g/l / 0.67 lb/gal
· **Solids content:**	18.0 %
· **Evaporation rate**	Not available

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10 Stability and reactivity

· **Reactivity** Acetone reacts exothermically with phosphorous oxychloride, which can lead to an explosion.

· **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** Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.

· **Incompatible materials:**
Strong acids
Strong bases
Strong oxidizing agents
Phosphorous oxychloride
Potassium tert-butoxide

· **Hazardous decomposition products:** Hazardous combustion products: see section 5.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**		
ATE (Acute Toxicity Estimate)		
Oral	LD50	26,333 mg/kg (rat)

67-64-1 acetone		
Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	>7,426 mg/kg (rabbit)
Inhalative	LC50/ 3 h	132 mg/L (rat)
616-38-6 dimethyl carbonate		
Oral	LD50	13,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8,532 mg/kg (rat)
Dermal	LD/50	5 g/kg (rabbit)
Inhalative	LC50/4 h	35.7 mg/L (rat)
71-36-3 butan-1-ol		
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/L (rat)
13463-67-7 titanium dioxide		
Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.82 mg/L (rat)

· **Primary irritant effect:**
· **on the skin:** Based on available data, the classification criteria are not met.
· **on the eye:** Causes serious eye damage.
· **Sensitization:** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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· **Carcinogenicity** Suspected of causing cancer. Route of exposure: Inhalation.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **Specific target organ toxicity - single exposure** May cause drowsiness or dizziness.
· **Specific target organ toxicity - repeated exposure**
Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **Summary of effects and symptoms by route of exposure**
· **Eyes:**
blurred vision
redness
eye damage, pain
· **Skin:**
dry skin
redness, may cause mild irritation
· **Inhalation:**
cough
sore throat
headache
dizziness or drowsiness
· **Swallowed:**
Low toxicity:
abdominal pain
nausea
headache
diarrhea
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.

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
13463-67-7	titanium dioxide	2B

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

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
67-64-1 acetone	
EC50/ 48 h	13,500 mg/L (daphnia)
LC50 96h	5,540 mg/L (trout)

· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.

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· **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.

· **Uncleaned packagings:**
· **Recommendation:**
Containers may still present a chemical hazard or 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.

14 Transport information

· **UN-Number**	
· **DOT/TDG, IMDG, IATA**	UN1139
· **UN proper shipping name**	
· **DOT/TDG, IATA**	Coating solution
· **IMDG**	COATING SOLUTION
· **Transport hazard class(es)**	
· **DOT/TDG (Transport dangerous goods):**	
· **Class**	3 Flammable liquids
· **Label**	3
· **IMDG, IATA**	
· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT/TDG, IMDG, IATA**	II
· **Environmental hazards:**	Not applicable
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable

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· **Transport/Additional information:**

Limited Quantity

844AR-900ML, 844AR-3.78L

· **DOT/TDG**

· **Quantity limitations**	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L

· **IMDG**

· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

· **Special precautions for user**	Not applicable
· **Hazard identification number (Kemler code):**	33
· **EMS Number:**	F-E,S-E
· **Stowage Category**	B
· **UN "Model Regulation":**	UN 1139 COATING SOLUTION, 3, II

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 2022.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

71-36-3	butan-1-ol

· **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:**

13463-67-7	titanium dioxide

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

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· **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)**		
67-64-1	acetone	A4
13463-67-7	titanium dioxide	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
13463-67-7	titanium dioxide

· **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%)**	
67-64-1	acetone
71-36-3	butan-1-ol

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

· **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
· **Date of previous version** 01/09/2026
· **Version number of previous version:** 1.02
· **Date of preparation** 10/22/2026
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association

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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