

THINNER

Quality System Certified to ISO 9001:2008

SAI Global File #004008

Burlington, Ontario, Canada

435-LIQUID

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Name: Thinner SDS Code: 435-Liquid

Related Part # 435-55ML, 435-1L, 435-4L, 435-20L

Recommended Use and Restriction on Use

Use: Thinner and remover of conformal coatings

Uses Advised Against: Not applicable

Details of Manufacturer or Importer

Manufacturer

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

+1-800-340-0772 +1-800-340-0773 FAX E-MAIL support@mqchemicals.com **W**EB www.mgchemicals.com

MG Chemicals (Head Office) 9347-193 Street

Surrey, British Columbia V4N 4E7

CANADA

+1-905-331-1396 +1-905-331-2682 FAX 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 **2**: +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
Eye irritation	2A	Warning	Exclamation
Specific Target Organ Toxicity Single Exposure	3	Warning	Exclamation

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity). Severity categories rankings do not allow comparisons between classes.

Label Elements

Signal Word	DANGER
Pictograms	Hazard Statements
	H225: Highly flammable liquid and vapor
_	H319: Causes serious eye irritation
	H336: May cause drowsiness and dizziness
Prevention	Precautionary Statements
Prevention P210	Precautionary Statements Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P210 P233	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed.
P210 P233 P240	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment.
P210 P233 P240 P241	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof equipment.
P210 P233 P240 P241 P243	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof equipment. Take action to prevent static discharges.
P210 P233 P240 P241 P243 P261	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof equipment. Take action to prevent static discharges. Avoid breathing vapors/mist/spray.



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Continued...

Prevention	Precautionary Statements
P280	Wear protective gloves/protective clothing/eye protection.
Response	Precautionary Statements
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.
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.
P304 + P340, P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Storage	Precautionary Statements
P403 + P235	Store in well ventilated place. Keep cool.
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)
67-64-1	acetone	92%
108-65-6	1-methoxy-2-propanol acetate	8%



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Section 4: First-Aid Mea	asures
Exposure Condition	GHS Code: Precautionary Statement
IF ON SKIN (or hair)	P303 + P361 + P353
Immediate Symptoms	dry skin
Response	Take off immediately all contaminated clothing. Rinse skin with water or shower.
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	severe irritation, redness, pain
Response	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice/attention
IF INHALED	P304 + P340, P312
Immediate Symptoms	cough, sore throat, nausea, headache, drowsiness, dizziness, unconsciousness
Response	Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.
	Call a POISON CENTRE/doctor if you feel unwell.
IF SWALLOWED	P301 + P330, P331
Immediate Symptoms	nausea, dizziness, headaches, weakness
Response	Rinse mouth.
	Do NOT induce vomiting.

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.



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Specific Hazards 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, CO₂).

Fire-Fighter Wear self-contained breathing apparatus and full fire-fighting

turn-out gear.

Section 6: Accidental Release Measures

Personal Protection See personal protection equipment in Section 8.

Precautions for

Response

Environmental

Precautions

sources of ignition or extreme heat.

Prevent spill from entering drains and waterways.

Containment Contain with inert absorbent (such as soil, sand, vermiculite).

Cleaning Collect the liquid in a sealable, chemical-resistant container.

Sprinkle inert absorbent compound onto spill, then sweep into the container. Use soap and water to remove the last traces of

Avoid breathing the mist/spray/vapors. Remove or keep away all

residue.

RECOMMENDATION: Use a grounded stainless steel or carbon steel

container.

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/sparks/open flames/hot surfaces.

No smoking.

Ground and bond container and receiving equipment. Take action to prevent static discharges. Use explosion-proof equipment.

Keep container tightly closed.

Avoid breathing vapors/mist/spray. Use only outdoors or in a

well-ventilated area.

Handling Wear protective gloves/protective clothing/eye protection.

Wash hands thoroughly after handling.

Storage Store in a well-ventilated area. Keep cool.

Store locked up.

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Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country	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	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
1-methoxy-2-propanol acetate	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	Not established Not established 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 RTECS² database 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).

Personal Protective Equipment

Eye protection Wear appropriate protective eyeglasses or chemical safety

goggles.

RECOMMENDATION: Use safety glasses with lateral protection

(side shields).

Skin Protection For likely contacts, use of protective butyl rubber, fluorinated

rubber, or other chemically resistant gloves.

For incidental contacts, use neoprene, natural latex rubber, or

other chemically resistant gloves.

Section continued on the next page



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Respiratory Protection

For over-exposures up to $10 \times OEL$ 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				
Physical State	Liquid	Lower Flammability Limit ^{b)}	2%	
Appearance	Colorless	Upper Flammability Limit ^{b)}	13%	
Odor	Ketone-like	Vapor Pressure @20°C	>220 hPa [163 mmHg]	
Odor Threshold	Not available	Vapor Density	2.25 (Air = 1)	
pH	Not available	Specific Gravity @25 °C	0.80	
Freezing/Melting Point	-94 °C [-137 °F]	Solubility in Water	Miscible	
Boiling Point	≥56 °C [≥133 °F]	Partition Coefficient	Not available	
Flash Point a)	-17°C [1.4 °F]	Auto-ignition Temperature	≥505 °C [≥941 °F]	
Evaporation Rate	3.77 (ButAc = 1)	Decomposition Temperature	Not available	
Flammability (solid, gas)	Not available	Viscosity @40 °C	<20.5 mm ² /s	

a) Closed cup value

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



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Section 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

Conditions to

Avoid flames, sparks, other ignition sources and incompatible

Avoid

substances.

Incompatibilities

Phosphorous oxychloride, strong oxidizing agents, strong bases

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, Inhalation, Skin Contact, and Ingestion

Symptoms Summary

Eyes Causes redness, serious eye irritation, and pain.

Skin May cause dry skin.

Inhalation May cause cough, sore throat, nausea, headache, and drowsiness,

dizziness. Severe overexposure may lead to unconsciousness.

Ingestion May cause nausea, weakness, headaches (see also inhalation

symptoms).

Chronic Prolonged or repeated exposure may cause skin dryness,

cracking, as well as defatting the skin.



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Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50	LD50	LC50
	oral	dermal	inhalation
acetone	5 800 mg/kg	20 mL/kg	16 000 ppm
	Rat	Rabbit ^{a)}	4 h Rat ^{a)}
1-methoxy-2-propanol acetate	8 532 mg/kg	>5 g/kg	Not
	Rat	Rabbit	available

Note: Toxicity data from the RTECS² and ECHA were consulted. The data from supplier (M)SDS were also consulted.

a) Supplier safety data sheet

Other Toxicological Effects

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Acetone is a known serious eye irritant.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	Based on available data, the classification criteria are not met.
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	Acetone 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.
Aspiration hazard	Based on available data, the classification criteria are not met. There are no 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.

Acetone and 1-methoxy-2-propanol acetate do not meet classification criteria for aquatic environmental toxicants with LC50 and EC50 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).
- The 1-methoxy-2-propanol acetate component has a minimal LC50 96 h of ≥100 mg/L Salmo gairdneri; and EC50 48 h >500 mg/L Daphnia magna (water flea).

Acute Ecotoxicity

Available toxicity data does not meet classification thresholds.

Chronic Ecotoxicity

Available toxicity data does not meet classification thresholds.

Biodegradability

Not available

Other Effects

Volatile Organic Content (VOC) = 8% [64 g/L]

Section 13: Disposal Information

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



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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 RELATED MATERIAL

Class: 3

Packing Group: II Marine Pollutant: No Flash Point = -17°C [1.4 °F]



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 0.5 L and under

Limited QuantityMax Net Qty/Pkg = 1 L



Sizes greater than 0.5 L

up to 5 L (passenger), 60 L (cargo)

UN number: UN1263 Shipping Name:

PAINT RELATED MATERIAL

Class: 3

Packing Group: II Marine Pollutant: No Flash Point = -17°C [1.4 °F]



Sea

Refer to IMDG regulations.

Sizes 5 Land under

Limited Quantity



Sizes greater than 5 L

UN number: UN1263 Shipping Name:

PAINT RELATED MATERIAL

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.



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Section 15: Regulatory Information

Canada

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.

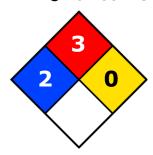
USA

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)

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 acetone (CAS# 67-64-1), which is subject to the CERCLA reporting requirements at the 5000 lb (2268 kg) threshold.



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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 does not contain any substances known to be listed in California.

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 Revision** 04 April 2016

Supersedes 29 February 2016

Reason for Changes: Changes to better meet HCS 2012 and WHMIS 2015

requirements.

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®)

Chemicals

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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

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national, and international regulations.