

THINNER CLEANER

435-LIQUID

Material Safety Data Sheet

Section 1: Product and Company Identification

Product Name: Thinner Cleaner**MSDS Code:** 435-Liquid**Related Part #:** 435-1L, 435-4L**Manufacturer:** MG Chemicals (Head Office), 9347-193 Street, Surrey, B.C., V4N 4E7**Emergency Contact:** CANUTECH ☎: 1-613-996-6666, Collect 24/7**Technical Contacts:** ☎ 1-800-201-8822 FAX 1-800-708-9888**E-MAIL:** support@mgchemicals.com **WEB** www.mgchemicals.com**Use:** Cleans and degreases electronic components, and reduces conformal coatings.

Section 2: Hazards Identification

Eyes	Causes severe eye irritation if splashed in eyes, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.
Skin	May cause mild skin irritation. Can cause redness, dryness, burning and skin burns. Prolonged and repeated contact may lead to dermatitis.
Inhalation	Inhalation of vapors may cause respiratory irritation, and central nervous system effects.
Ingestion	Harmful if swallowed. May cause digestive tract irritation. May cause kidney damage, liver damage, and central nervous system depression.
Chronic	Long term exposure may cause liver and kidney damage.

Section 3: Hazardous Ingredients

CAS #	Chemical Name	Wt%	ACGIH TWA	OSHA PEL	OSHA STEL
67-64-1	2-propanone	60-100%	750 ppm	1000 ppm	1000 ppm
108-65-6	1-methoxy-2-propanol acetate	3-7%	N/E	N/E	N/E

THINNER CLEANER**435-LIQUID****Section 4: First Aid Measures**

Eyes	Flush eyes with water or saline for 20 minutes. Get medical aid.
Skin	Wash with water and soap. Get medical aid if irritation persists.
Inhalation	Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Ingestion	Do not induce vomiting. If conscious, give one to two glasses of water. Get medical aid.

Section 5: Fire Fighting Measures

Autoignition Temperature 465 °C **Flash Point** -18 °C **LEL / UEL*** 2 / 12

Extinguishing Media Use water spray, dry chemical, carbon dioxide, or chemical foam.

General Information Will burn if involved in a fire. Vapors can travel to source of ignition and flash back.

**LEL = Lower Explosive Limit; UEL = Upper Explosive Limit*

Section 6: Accidental Release Measures

Containment Remove all source of ignition. Wear appropriate personal protection.

Cleaning For large spills, use non-sparking tools to scoop off liquid into a plastic or metal container. Sprinkle absorbent compound onto spill, then sweep into a plastic or metal container. Wipe up further residue with paper towel and place in container. Wash spill area with soap and water to remove the last traces of residue.

Disposal Dispose of spill waste according to local disposal regulations.

Section 7: Handling and Storage

Handling Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not ingest or inhale. Do not expose container to heat or flames.

Storage Store in dry and well-ventilated areas away for sources of ignition or incompatible substances.

THINNER CLEANER**435-LIQUID****Section 8: Exposure Controls/Personal Protection****Routes of Entry**

Eyes, ingestion, inhalation, and skin.

Engineering Controls

Ventilation: Normal ventilation is adequate when used as directed. Use general or local exhaust ventilation to keep airborne concentrations below exposure limits.

Personal Protective Equipment

Eye protection: Wear appropriate protective eyeglasses or chemical safety goggles.

Skin Protection: Wear appropriate protective clothing to prevent skin contact. Use of protective gloves in butyl rubber or other impervious gloves.

Respiratory Protection: Wear NIOSH approved respirator when necessary.

General Hygiene Considerations

Wash hands with water and soap after use.

Section 9: Physical and Chemical Properties

Physical State	Liquid	Odor	Ketone	Appearance	Clear, colorless
Odor Threshold	Not established	Freezing Point	-94 °C	Partition Coefficient	Not established
Boiling Point	56 °C	Vapor Pressure	180 mm/Hg @ 20 °C	Evaporation Rate	2.7 (Ether =1)
Specific Gravity	0.79	Solubility in Water	Soluble	pH	7
Autoignition Temperature	465 °C	Flash Point	-18 °C	Vapor Density	2 (Air =1)

*LEL = Lower Explosive Limit; UEL = Upper Explosive Limit

THINNER CLEANER

435-LIQUID

Section 10: Stability and Reactivity

Stabilities	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Temperature over 40 °C, ignition sources, and incompatible substances. Exposure to moist air or water
Incompatibilities	Strong oxidizing agents, strong mineral acids, alkalis, amines, and activated carbon
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. Produces carbon dioxide and carbon monoxide when it burns

Section 11: Toxicological Information

Sensitization (effects of repeated exposure)	Repeated exposure may cause defatting leading to dermatitis
Carcinogenicity (risk of cancer)	Not a carcinogen
Reproductive Toxicity (risk of sterility)	Not a reproductive hazard
Teratogenicity (risk of fetus malformation)	Not known to harm an unborn child
Mutagenicity (risk of heritable genetic effects)	Not a mutagen

Lethal Exposure Concentrations

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation	TLC ₀ inhalation
2-propanone	5,800 mg/kg Rat	20 mL/kg Rabbit	16,000 ppm 6h Rat	5000 ppm 3D Rat
1-methoxy-2-propanol acetate	8,532 mg/kg Rag	> 5 g/kg Rabbit	N/A	1105 mg/m ³ 4 h Rat

THINNER CLEANER**435-LIQUID****Section 12: Ecological Information**

This product is biodegradable and will not bioaccumulate. Avoid runoff into storm drains and sewers that lead into waterways. May cause environmental damage due to biochemical oxygen demand.

Commercial Products

VOC (EPA, Europe and WHIMS) = 7% [53 g/L]

*VOC = *Volatile Organic Content*

Section 13: Disposal Information

Dispose of in accordance with all local, provincial, state, and federal regulations.

Section 14: Transport Information**Ground (1 liter size)**

Consumer Commodity; ORM-D

(4 liter size)

Recommend Shipper be trained and certified. Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations); **USA CFR 49 Regulations** (Parts 100 to 185).

UN number: UN1993; **Shipping Name:** Flammable Liquid, N.O.S. Acetone;
Class: 3, PG: II, Flashpoint -18 °C

Air

Shipper must be trained and certified. Refer to IATA Dangerous Goods Regulations.

UN number: UN1993; **Shipping Name:** Flammable Liquid, N.O.S. Acetone;
Class: 3, PG: II, Flashpoint -18 °C

Sea

Shipper must be trained and certified. Refer to IMDG regulations.

UN number: UN1993; **Shipping Name:** Flammable Liquid, N.O.S. Acetone;
Class: 3, PG: II, Flashpoint -18 °C

THINNER CLEANER**435-LIQUID****Section 15: Regulatory Information****Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation (CPR) and the MSDS contains all the information required by CPR.

WHMIS Classification

B2 – Flammable Liquid; DB2 – Toxic (Eye irritant)

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All ingredients are listed on the DSL/NDSL.

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.

USA**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 any chemicals listed as hazardous air pollutants.

SARA (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

None of the chemicals in this product have a reportable quantity.

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

This product does not contain any chemicals subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

THINNER CLEANER

435-LIQUID

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA).

This product does not contain any chemicals listed

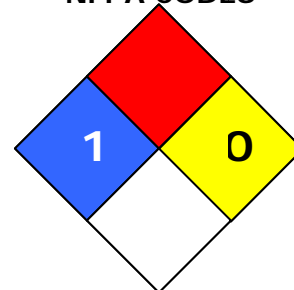
SCAQMD Rule 1143 (California South Coast District)

Within the boundaries of the South Coast Air Quality Management District (in California), this product is for commercial and industrial use only, and must not be displayed for retail sale to consumers.

HMIS RATING

HEALTH:	1
FLAMMABILITY:	4
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA CODES



Europe

RoHS

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

THINNER CLEANER**435-LIQUID****Section 16: Other Information**

MSDS Prepared by Michel Hachey

Date of Preparation 13 July, 2011

Abbreviations

LC50 Lethal Concentration 50%
LD50 Lethal Dose 50%
N/A Not Applicable
N/E Not Estimated
PEL Permissible Exposure Limit
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 are located at www.mgchemicals.com.

Email: support@mgchemicals.com

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