

**ACETONE** 

#### ISO 9001:2015 Quality Management System

SAI Global File #004008 Burlington, Ontario, Canada

434-LIOUID

# **Safety Data Sheet**

#### **Section 1: Product and Company Identification**

#### **Product Identifier and Other Means of Identification**

Product Identifier: Acetone

Other Means of Identification: Not available

Related Part # 434-1L, 434-4L

#### Recommended Use and Restriction on Use

Use: Solvent

**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

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 E-MAIL
 support@mgchemicals.com

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Surrey, British Columbia V4N 4E7

**CANADA** 

+1-905-331-1396

FAX +1-905-331-2682

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 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

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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 Specific Target Organ Toxicity Single Exposure	2A 3	Warning Warning	Exclamation 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 or dizziness
Prevention	Precautionary Statements
Prevention P210	Precautionary Statements  Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
	Keep away from heat, hot surfaces, sparks, open flames, and other
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P210 P240	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  Ground and bond container and receiving equipment.
P210 P240 P241	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  Ground and bond container and receiving equipment.  Use explosion-proof equipment.
P210 P240 P241 P243	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  Ground and bond container and receiving equipment.  Use explosion-proof equipment.  Take action to prevent static discharges.

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#### Continued...

Prevention	Precautionary Statements
P264	Wash hands thoroughly after handling.
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 or attention.
P304 + P340, P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or 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 in accordance to local, regional, national, and 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	100%



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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 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice or attention
IF INHALED	P304 + P340, P312
Immediate Symptoms	cough, sore throat, nausea, headache, drowsiness, dizziness, unconsciousness
Response	Remove person to fresh air and keep comfortable for breathing.
	Call a POISON CENTRE or 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.			
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.			
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> ).			
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.			

# Chemicals

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#### **Section 6: Accidental Release Measures**

**Personal Protection** See personal protection equipment in Section 8.

Precautions for Response

Avoid breathing the mist, vapors, spray. Remove or keep away

all sources of ignition or extreme heat.

**Environmental Precautions** 

Prevent spill from entering drains.

**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

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, hot surfaces, sparks, open flames, and

other ignition sources. 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 mist, vapors, or 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	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

*Note:* The ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS<sup>2</sup> 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.

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## Respiratory Protection

For over-exposures up to  $10 \times OEL$  of mist, vapors, or 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	2.5%	
Appearance	Colorless	Upper Flammability Limit	12.8%	
Odor	Ketone-like	Vapor Pressure @20°C	243 hPa [182 mmHg]	
Odor Threshold	4.58 ppm	Vapor Density	2.01 (Air = 1)	
рН	Not available	Relative Density @25 °C	0.79	
Freezing/Melting Point	-94 °C [-137 °F]	Solubility in Water	Miscible	
Initial Boiling Point	≥56 °C [≥133 °F]	Partition Coefficient n-octanol/water	Not available	
Flash Point a)	-17°C [1.4 °F]	Auto-ignition Temperature	465 °C [869 °F]	
Evaporation Rate	6.3 (ButAc = 1)	Decomposition Temperature	Not available	
Flammability	Highly Flammable	Viscosity @40 °C	<20.5 mm <sup>2</sup> /s	

a) Closed cup value



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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**

#### **Summary of Effects and Symptoms by Routes of Exposure**

**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 <sup>a)</sup>	4 h Rat <sup>a)</sup>

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

a) Supplier safety data sheet

#### **Other Toxicological Effects**

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.
<b>Mutagenicity</b> (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.
<b>Teratogenicity</b> (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 (<a href="http://echa.europa.eu">http://echa.europa.eu</a>), and other reliable sources.

Acetone does 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).

#### **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) = 0% [0 g/L] by VOC-Exemption

#### **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 1 L and under 434-1L

**Limited Quantity** 



Sizes greater than 1 L

**UN number**: UN1090 **Shipping Name**: ACETONE

Class: 3

Packing Group: II Marine Pollutant: No



#### Air

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

Sizes 0.5 L and under

**Limited Quantity**Max Net Qty/Pkg = 1 L



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

*434-1L, 434-4L* **UN number**: UN1090

Shipping Name: ACETONE

Class: 3

Packing Group: II Marine Pollutant: No



#### Sea

#### Refer to IMDG regulations.

Sizes 1 L and under

**Limited Quantity** 



Sizes greater than 1 L

434-4L

**UN number**: UN1090 **Shipping Name**: ACETONE

Class: 3

Packing Group: II Marine Pollutant: No



*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.

#### 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**

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 5 000 lb (2 268 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)

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, 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**

**Prepared by the**Regulatory Affairs Department

**Date of Revision** 28 February 2020 **Supersedes** 11 December 2018

**Reason for Changes:** 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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#### **Abbreviations**

ACGIH American Conference of Governmental Industrial Hygienists (USA)

ECHA European Chemicals Agency

ΕU European Union

EC50 Half maximal effective concentration

EL50 Half maximal effective loading

**IARC** International Agency for Research on Cancer

No observable effect loading ratio NOELR National Toxicology Program NTP

Globally Harmonized System of Classification of Labeling of Chemicals GHS

LC50 Lethal Concentration 50%

Lowest published lethal concentration LCLo

LD50 Lethal Dose 50%

OEL Occupational Exposure Limit PEL Permissible Exposure Limit

Safety Data Sheet SDS

Short-Term Exposure Limit STEL

TCLo Lowest published toxic concentration

Time Weighted Average TWA 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.