

# Acetone

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Acetone
<b>Other Means of Identification</b>	2-Propanone
<b>Recommended Use</b>	Laboratory solvent.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer/Supplier Identifier</b>	Caledon Laboratories Ltd, 40 Armstrong Avenue, Georgetown, Ontario, L7G-4R9, (905) 877-0101, www.caledonlabs.com
<b>Emergency Phone No.</b>	CANUTEC, (613) 996-6666
<b>SDS No.</b>	0059

## SECTION 2. HAZARD IDENTIFICATION

### Classification

Flammable liquid - Category 2; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3

### Label Elements



### Danger

#### Hazard Statement(s):

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.

#### Precautionary Statement(s):

##### Prevention:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical, ventilating, and lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash hands and skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

##### Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a POISON CENTRE or doctor if you feel unwell.

If eye irritation persists: Get medical advice or attention.

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In case of fire: Use appropriate foam, dry chemical powder to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal:

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

#### Other Hazards

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Acetone	67-64-1	100	EU EINECS/ELINCS Number: 200-662-2

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Get medical advice or attention if you feel unwell or are concerned.

##### Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Clean clothing, shoes and leather goods. Call a Poison Centre or doctor if you feel unwell.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

##### Ingestion

Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Call a physician.

##### First-aid Comments

Treat symptomatically. Risk of product entering the lungs on vomiting after ingestion.

#### Most Important Symptoms and Effects, Acute and Delayed

At high concentrations can harm the nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. If in eyes: causes moderate to severe irritation.

#### Immediate Medical Attention and Special Treatment

##### Target Organs

Nervous system.

##### Special Instructions

Notes to physician

Treatment : Treat symptomatically. Risk of product entering the lungs on vomiting after ingestion.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam. Special "alcohol resistant fire-fighting foams". Use water

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to keep non-leaking, fire-exposed containers cool.

#### Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

#### Specific Hazards Arising from the Product

May travel a considerable distance to a source of ignition and flash back to a leak or open container. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard. Extremely flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can accumulate static charge by flow, splashing or agitation.

Toxic chemicals; very toxic carbon monoxide, carbon dioxide.

#### Special Protective Equipment and Precautions for Fire-fighters

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so.

#### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

#### Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Review Section 13 (Disposal Considerations) of this safety data sheet.

## SECTION 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Avoid breathing in this product. Do not swallow. Do NOT smoke in work areas. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not get in eyes, on skin or on clothing. Keep containers tightly closed when not in use or empty.

#### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources. Store in a closed container. Store product under an inert gas such as nitrogen. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Acetone	500 ppm A4	750 ppm A4	750 ppm			

#### Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Provide eyewash in work area, if contact or splash hazard exists.

#### Individual Protection Measures

##### Eye/Face Protection

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Do not wear contact lenses.  
Wear as appropriate:  
Safety glasses with side-shields  
If splashes are likely to occur, wear:  
Goggles or face shield, giving complete protection to eyes.

#### **Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots. Wear fire resistant or flame retardant clothing.

#### **Respiratory Protection**

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Basic Physical and Chemical Properties**

<b>Appearance</b>	Colourless.
<b>Odour</b>	Pungent
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	-94 °C (-137 °F) (melting); -94 °C (-137 °F) (freezing)
<b>Initial Boiling Point/Range</b>	56.1 °C (133.0 °F)
<b>Flash Point</b>	-20 °C (-4 °F)
<b>Evaporation Rate</b>	5.6 (n-butyl acetate = 1)
<b>Flammability (solid, gas)</b>	Extremely flammable gas.
<b>Upper/Lower Flammability or Explosive Limit</b>	12.8% (upper); 2% (lower)
<b>Vapour Pressure</b>	24.7 kPa at 20 °C
<b>Vapour Density (air = 1)</b>	2.0
<b>Relative Density (water = 1)</b>	0.791 at 20 °C
<b>Solubility</b>	Soluble in all proportions in water; Soluble in all proportions in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	-0.24
<b>Auto-ignition Temperature</b>	465 °C (869 °F)
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	0.40 mm <sup>2</sup> /s at 20 °C (kinematic); 0.32 mPa.s at 20 °C (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Molecular Formula</b>	(CH <sub>3</sub> ) <sub>2</sub> CO
<b>Molecular Weight</b>	58.08

## **SECTION 10. STABILITY AND REACTIVITY**

### **Reactivity**

Not applicable.

### **Chemical Stability**

Normally stable.

### **Possibility of Hazardous Reactions**

None known.

### **Conditions to Avoid**

Heat. Open flames, sparks, static discharge, heat and other ignition sources. Sunlight.

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### Incompatible Materials

Increased risk of fire and explosion on contact with: acid anhydrides (e.g. acetic anhydride), aldehydes (e.g. acetaldehyde), amines (e.g. triethylamine), ammonia, oxidizing agents (e.g. peroxides), reducing agents (e.g. hydroquinone), halogens (e.g. chlorine).

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Skin contact; eye contact; inhalation.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Acetone	32000 ppm (rat) (4-hour exposure)	5800 mg/kg (rat)	> 7426 mg/kg (guinea pig)

### Skin Corrosion/Irritation

Animal tests show very mild irritation.

### Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

May be harmful based on animal tests.

#### Skin Absorption

No information was located.

#### Ingestion

May be harmful based on animal tests.

### Aspiration Hazard

No information was located.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Causes harmful effects on the kidneys, harmful effects on the liver.

### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not a skin sensitizer.

### Carcinogenicity

No ingredients of this product have been evaluated for carcinogenicity by the International Agency for Research on Cancer (IARC), the American Conference of Governmental Industrial Hygienists (ACGIH®) or the US National Toxicology Program (NTP).

### Reproductive Toxicity

#### Development of Offspring

Animal studies show effects on the offspring.

#### Sexual Function and Fertility

Conclusions cannot be drawn from the limited studies available.

#### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

Not known to be a mutagen.

No information was located for: Aspiration Hazard, Effects on or via Lactation, Interactive Effects

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Acetone	5540 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static)	12600-12700 mg/L (Daphnia magna (water flea); 48-hour)		

### Persistence and Degradability

Degrades rapidly based on quantitative tests.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Recycle and reuse product, if possible. Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1090	Acetone	3	II
US DOT	UN 1090	Acetone	3	II
IATA (Air)	UN 1090	Acetone	3	II
IMO (Marine)	UN 1090	Acetone	3	II

**Special Precautions** Not applicable

### Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

##### Additional USA Regulatory Lists

SARA Title III - Section 302: Not applicable. SARA Title III - Section 313: Not applicable. SARA Title III - Section 311/312: Fire hazard Immediate (acute) health hazard.

## SECTION 16. OTHER INFORMATION

**NFPA Rating** Health - 1 Flammability - 3 Instability - 0

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**References**

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
Suppliers Safety Data Sheets.

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