



# Safety Data Sheet

## Section 01 - Identification

---

<b>Product Identifier</b>	Acetone
<b>Other Means of Identification</b>	Dimethyl ketone and 2-Propanone
<b>Product Use and Restrictions on Use</b>	Chemical intermediate.
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
<b>24-Hour Emergency Phone</b>	Phone: 1 (306) 664 – 2522

---

## Section 02 - Hazard Identification

---

### GHS-Classification

<b>Serious Eye Damage/Irritation</b>	Category 2
<b>STOT-Single Exposure</b>	Category 3

### Physical Hazards

<b>Flammable Liquid</b>	Category 2
-------------------------	------------

### **Danger**

### **Hazard Statements**

H225 – Highly flammable liquid and vapour.  
H336 – May cause drowsiness or dizziness.  
H319 – Causes serious eye irritation.

### **Pictograms**



### **Precautionary Statements**

P210 – Keep away from heat, sparks, open flames, and hot surfaces. — No smoking.  
P233 – Keep container tightly closed.  
P405 – Store locked up.  
P271 – Use only outdoors or in a well-ventilated area.  
P261 – Avoid breathing mist, vapours or spray.  
P403 + P235 – Store in a well-ventilated place. Keep cool.  
P240 – Ground/bond container and receiving equipment.

P241 – Use explosion-proof electrical, ventilating, lighting, and equipment.  
 P242 – Use only non-sparking tools.  
 P243 – Take precautionary measures against static discharge  
 P280 – Wear protective gloves, protective clothing, eye protection and face protection.  
 P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin  
 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 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P370 + P378 – In case of fire: Use Carbon dioxide, dry powder, or alcohol resistant foam for extinction.  
 P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act

---

## Section 03 - Composition / Information on Ingredients

---

Chemical Name	CAS Number	Weight %	Unique Identifiers
Acetone	67-64-1	100	Not Available

---

## Section 04 - First Aid Measures

---

<b>Inhalation</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention if difficulty in breathing persists.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
<b>Ingestion</b>	Aspiration hazard. Get medical aid. Do not induce vomiting unless directed by medical personnel. If vomiting begins naturally, have victim lean forward. Never give anything by mouth to an unconscious person. If not breathing, begin artificial respiration.
<b>Additional Information</b>	Not Available.

---

## Section 05 - Fire Fighting Measures

---

<b>Suitable Extinguishing Media</b>	Use Carbon dioxide, dry powder, or alcohol resistant foam.
<b>Unsuitable Extinguishing Media</b>	Not Available.
<b>Specific Hazards Arising From the Chemical</b>	Extremely flammable, vapours are heavier than air and may spread along floors. Forms or accumulates static electricity may cause fire or explosion. Acetone solutions that contain more than 2.5% acetone have flash points, when the acetone concentration is greater than 8% by weight in a closed container, it would be within the flammable range and cause fire or explosion if a source of ignition were introduced. Do not spread this product over a large surface area because the fire and healthy safety risks will increase dramatically.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	As in any fire, always wear self-contained breathing apparatus in pressure-demand, NIOSH approved, and full protective gear. Use water spray to keep fire exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products.
<b>Further Information</b>	Not Available.

---

## Section 06 - Accidental Release Measures

---

<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Remove all sources of ignition, no smoking, naked lights or ignition sources. Ventilate area of leak or spill. Keep unnecessary and unprotected personnel from entering. Evacuate personnel from the danger area. Consult with an expert about the emergency procedures.
<b>Environmental Precautions</b>	Prevent product from entering sewers or waterways.
<b>Methods and Materials for Containment and Cleaning Up</b>	<p>SMALL SPILLS: Remove all ignition sources and clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up area collect residues in a flammable waste container.</p> <p>LARGE SPILLS: Contain spill with sand, earth or vermiculite. Use only spark-free shovels and equipment. Collect recoverable product into labeled containers for proper disposal. Collect the residues and seal in the disposal container. Wash area and prevent run off into drains. If contamination of drains or waterways occurs, advise emergency services.</p>

---

## Section 07 - Handling and Storage

---

<b>Precautions for Safe Handling</b>	Wash thoroughly after handling, and use only in a well ventilated area. Ground and bond containers when transferring. Use spark-free tools and equipment. Empty containers retain product residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose empty containers to heat, sparks, or open flames.
<b>Conditions for Safe Storage</b>	Store in original containers in approved flame-proof area. NO smoking, naked lights, heat or ignitions sources. Keep containers securely sealed. Protect containers against physical damage, and check regularly for leaks. Keep containers tightly closed and store in a cool, dry, well-ventilated place, plainly labeled, and out of closed vehicles. Ground all equipment containing this material.
<b>Incompatibilities</b>	Strong oxidizing agents, strong reducing agents, strong bases, nitric acid, hexachloromelanmine, sulfur dichloride, potassium tert-butoxide.

---

## Section 08 - Exposure Controls and Personal Protection

---

### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Acetone	ACGIH	TLV-TWA	250 ppm
	ACGIH	TLV-STEL	500 ppm
	NIOSH	IDLH	2500 ppm
	OSHA	PEL-STEL	1000 ppm
	OSHA	PEL-TWA	750 mg/m <sup>3</sup>

### Engineering Control(s)

<b>Ventilation Requirements</b>	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

<b>Eyes/Face</b>	Chemical goggles and/or a face shield should be worn while product is being handled. Contact lenses should not be worn; they may contribute to severe eye injury.
------------------	---

<b>Hand Protection</b>	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
<b>Skin and Body Protection</b>	Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times.
<b>Respiratory Protection</b>	<p>NIOSH RECOMMENDATIONS FOR ACETONE CONCENTRATIONS IN AIR:  Up to 2,500 ppm:  (APF=10) Any chemical cartridge respirator with organic vapor cartridge(s); or any supplied-air respirator.  (APF=25) Any powered, air-purifying respirator with organic vapour cartridge(s).  (APF=50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back- mounted organic vapour canister; or any self-contained breathing apparatus with a full facepiece.</p> <p>Emergency or planned entry into unknown concentrations or IDLH conditions:  (APF=10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode; or any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus.</p> <p>Escape:  (APF=50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back- mounted organic vapour canister; or any appropriate escape-type, self-contained breathing apparatus.</p>
<b>Thermal Hazards</b>	Not Available.

---

## Section 09 - Physical and Chemical Properties

---

### Appearance

<b>Physical State</b>	Liquid
<b>Colour</b>	Transparent
<b>Odour</b>	Fruity odor
<b>Odour Threshold</b>	130 ppm

### Property

<b>pH</b>	7
<b>Melting Point/Freezing Point</b>	-94.7°C (-138°F)
<b>Initial Boiling Point and Boiling Range</b>	56.2°C (133.2°F)
<b>Flash Point</b>	-20°C (-4°F)
<b>Evaporation Rate</b>	5.6
<b>Flammability</b>	Extremely flammable liquid.
<b>Upper Flammable Limit</b>	12.8%
<b>Lower Flammable Limit</b>	2.5%

<b>Vapour Pressure (mm Hg, 20°C)</b>	185
<b>Vapour Density (Air=1)</b>	2.0
<b>Relative Density</b>	Not Available.
<b>Solubility(ies)</b>	Soluble in water. Soluble in ethanol and other lower molecular weight alcohols, diethyl ether, other ethers, benzene, chloroform, carboxylic acids, dimethylformamide, other polar organic solvents, and most oils.
<b>Partition Coefficient: n-octanol/water</b>	Log P <sub>ow</sub> = -0.24
<b>Auto-ignition Temperature</b>	465°C (869°F)
<b>Decomposition Temperature</b>	Not Available.
<b>Viscosity</b>	0.32 cPs
<b>Explosive Properties</b>	Not Available.
<b>Specific Gravity (Water=1)</b>	0.785-0.791
<b>% Volatiles by Volume</b>	Not Available.
<b>Formula</b>	C <sub>3</sub> H <sub>6</sub> O
<b>Molecular Weight</b>	58.08

---

## Section 10 - Stability and Reactivity

---

<b>Reactivity</b>	Not Available.
<b>Stability</b>	Stable at room temperatures in closed containers under normal temperatures and pressures.
<b>Possibility of Hazardous Reactions</b>	Has not been reported.
<b>Conditions to Avoid</b>	Ignition sources, high temperatures, electrical sparks, and confined spaces.
<b>Incompatible Materials</b>	Strong oxidizing agents, strong reducing agents, strong bases, nitric acid, hexachloromelanmine, sulfur dichloride, potassium tert-butoxide.
<b>Hazardous Decomposition Products</b>	Carbon monoxide and carbon dioxide.

---

## Section 11 - Toxicological Information

---

### Acute Toxicity

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Acetone	5340 mg/kg (rabbit)	>15800 mg/kg (rabbit)	10 mg/m <sup>3</sup> (4hrs rat)

### Chronic Toxicity – Carcinogenicity

Component	IARC
Acetone	Not listed as a carcinogen.

<b>Skin Corrosion/Irritation</b>	Irritation due to defatting action on skin may cause redness, pain, drying and cracking of the skin. May be absorbed through the skin.
<b>Ingestion</b>	May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma, and possible death due to respiratory failure. Aspiration into lungs may cause chemical pneumonitis, which may be fatal.
<b>Inhalation</b>	Inhalation of high concentrations can produce central nervous system effects such as nausea, headache, dizziness, unconsciousness, and coma. Causes respiratory tract irritation. May cause motor incoordination and speech abnormalities.
<b>Serious Eye Damage/Irritation</b>	Vapors are irritating to the eyes and may cause a burning sensation, redness, tearing, inflammation, and possible corneal injury.
<b>Respiratory or Skin Sensitization</b>	Not Available.
<b>Germ Cell Mutagenicity</b>	Sex chromosome loss and nondisjunction = 47 6000ppm, cytogenic analysis = 40gm/l.(Rodent/hamster fibroblast)
<b>Reproductive Toxicity</b>	Not Available.
<b>STOT-Single Exposure</b>	Not Available.
<b>STOT-Repeated Exposure</b>	Not Available.
<b>Aspiration Hazard</b>	Not Available.
<b>Synergistic Materials</b>	Not Available.

---

## Section 12 – Ecological Information

---

### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Acetone	Not Available	LC <sub>50</sub> (Oncorhynchus mykiss, 96hr): 5540 mg/L	LC <sub>50</sub> (Daphnia magna, 48hr): 0.4-0.5 ug/L

<b>Biodegradability</b>	The material, in probability, is biodegradable, under aerobic conditions. Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process. Under aerobic conditions the material will degrade to water and carbon dioxide, while under aerobic processes it will produce water, methane, carbon dioxide and carbon dioxide.
<b>Bioaccumulation</b>	This material is not expected to significantly bioaccumulate.
<b>Mobility</b>	Not Available.
<b>Other Adverse Effects</b>	Not Available.

---

## Section 13 – Disposal Considerations

---

<b>Waste From Residues/Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

---

## Section 14 – Transport Information

---

<b>UN Number</b>	UN1090
<b>UN Proper Shipping Name</b>	ACETONE
<b>Transport Hazard Class(es)</b>	3

<b>Packaging Group</b>	II	
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.	
<b>Special Precautions</b>	Not Available	
<b>Transport in Bulk</b>	Not Available	
<b>Additional Information</b>	<u>Packaging Group</u>	<u>Limited Quantity Index</u>
	II	1 L

## **TDG**

**Other** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

## **Section 15 – Regulatory Information**

**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

## **Section 16 – Other Information**

**Preparation Date** August 4, 2015

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

### **Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

### **References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

### **ClearTech Industries Inc. - Locations**

**Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7**  
**Phone: 1(306) 664 – 2522**  
**Fax: 1(888) 281-8109**

[www.cleartech.ca](http://www.cleartech.ca)

**24 Hour Emergency Number - All Locations – 1(306) 664-2522**