

## Diacetone Alcohol

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Diacetone Alcohol
<b>Other Means of Identification</b>	DAA, 4-hydroxy-4-methyl-2-pentanone
<b>Other Identification</b>	DI1010
<b>Product Family</b>	Alcohol
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	0410
<b>Date of Preparation</b>	March 03, 2016

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 5; Eye irritation - Category 2A

#### Label Elements



Signal Word:  
Warning

#### Hazard Statement(s):

Flammable liquid and vapour.  
Causes serious eye irritation.

#### Precautionary Statement(s):

##### Prevention:

Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Use only outdoors or in a well-ventilated area.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Ground and bond container and receiving equipment.  
Keep container tightly closed.

##### Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN: Wash with plenty of water/

If skin irritation occurs: Get medical advice or attention.

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

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

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

Storage:

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

Disposal:

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

#### **Other Hazards**

None known.

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Diacetone alcohol	123-42-2	> 99	DAA, 4-hydroxy-4-methyl-2-pentanone

### **SECTION 4. FIRST-AID MEASURES**

#### **First-aid Measures**

##### **Inhalation**

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

##### **Skin Contact**

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

##### **Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

##### **Ingestion**

Do not induce vomiting. Rinse mouth with water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

##### **First-aid Comments**

All first aid procedures should be periodically reviewed by a doctor familiar with the material and its condition of use in the workplace.

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

If inhaled: can harm the nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

#### **Immediate Medical Attention and Special Treatment**

##### **Special Instructions**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### **SECTION 5. FIRE-FIGHTING MEASURES**

#### **Extinguishing Media**

### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Closed containers may rupture violently when heated releasing contents. May travel a considerable distance to a source of ignition and flash back to a leak or open container. Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide.

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

Evacuate area. Use extreme caution. Fight fire from a protected, explosion-resistant location or maximum distance possible. Approach fire from upwind to avoid hazardous vapours or gases. Use water spray to flush spills away from ignition sources. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles.

A full-body encapsulating chemical protective suit with positive pressure SCBA may be necessary. 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: 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. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

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

### Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe in this product. Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. 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, separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Diacetone alcohol	50 ppm		Not established			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

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### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, Barrier® (PE/PA/PE), Silver Shield/4H® (PE/EVAL/PE).

The following materials should NOT be used: natural rubber, polyvinyl chloride, Viton®.

### Respiratory Protection

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

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

Wear a powered air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Sweet
Odour Threshold	0.27 ppm (detection)
pH	Not available
Melting Point/Freezing Point	-44 °C (-47 °F) (melting); -44 °C (-47 °F) (freezing)
Initial Boiling Point/Range	168 °C (334 °F)
Flash Point	58 °C (136 °F) (closed cup)
Evaporation Rate	0.1 (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	6.9% (upper); 1.8% (lower)
Vapour Pressure	0.13 kPa (0.98 mm Hg)
Vapour Density (air = 1)	4.00
Relative Density (water = 1)	0.93 at 25 °C
Solubility	Soluble in all proportions in water; Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	-0.098
Auto-ignition Temperature	603 °C (1117 °F)
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); 2.9 mPa.s (dynamic)
Other Information	
Physical State	Liquid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

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

### Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), alcohols (e.g. ethanol), amines (e.g. triethylamine).

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Diacetone alcohol	> 1860 ppm (rat) (4-hour exposure)	4000 mg/kg (rat)	13485 mg/kg (rabbit)

### Skin Corrosion/Irritation

Animal tests show mild irritation.

### Serious Eye Damage/Irritation

Animal tests show mild irritation. Animal tests show serious eye irritation.

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

#### Inhalation

No information was located.

#### Ingestion

No information was located.

### Aspiration Hazard

No information was located.

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

No information was located.

### Respiratory and/or Skin Sensitization

No information was located.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Diacetone alcohol	Not evaluated	Not designated	Not Listed	

### Reproductive Toxicity

#### Development of Offspring

No information was located.

#### Sexual Function and Fertility

No information was located.

#### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

No information was located.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

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

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## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1148	Diacetone alcohol	3	II
US DOT	UN1148	Diacetone alcohol	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)**

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**NFPA Rating** Health - 1 Flammability - 2 Instability - 0

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

**Date of Preparation** March 03, 2016

**Date of Last Revision** April 05, 2016

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.