

# Safety Data Sheets

Revision Date: 22-Sep.-2015

## Section 1. Identification of substance

Product Name : Diacetone Alcohol
Synonyms : 4-Hydroxy-4-methyl-2-pentanone
CAS Number: 123-42-2
Manufacturer/Supplier : EXCEL Chemical Corporation
Plant Address : Plant Address: 1 kung-Yeh, 2nd Rd., Lin-Yuan, Kaohsiung, Taiwan
Emergency Telephone Numbers : +886-07-6411122 /FAX : +886-07-6411125
e-mail: kc-lai@tascogroup.com.tw

## Section 2. Hazards identification

<b>Hazard Classification :</b> 
<b>Signal Word :</b> Warning
<b>Potential Acute Health Effects:</b> Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of skin contact (permeator).
<b>Potential Chronic Health Effects:</b> CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

## Section 3. Composition/information on ingredients

Chemical Name : Diacetone Alcohol
Synonyms : 4-Hydroxy-4-methyl-2-pentanone
Molecular formula: C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>

## Section 4. First Aid Measures

<b>Skin:</b> Immediately flush skin with plenty of water. Remove contaminated shoes and clothing. Get medical attention if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Eyes:</b> Immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
<b>Inhalation:</b> Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b> If large quantities of this material are swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. Get medical attention.

## Section 5. Fire Fighting Measures

**Extinguishing Media:** Use alcohol type aqueous film forming foam for large fires. Use CO2 or dry chemical for small fires.

### **Fire Fighting Instructions:**

Water spray should be used to cool fire-exposed structures and vessels. Water spray can be used to reduce the intensity of flames and to dilute spills to a nonflammable mixture. Keep personnel removed from and upwind of fire. If potential for exposure to vapors or products of combustion exists, wear full fire fighting turnout gear and NIOSH approved self-contained breathing apparatus. Oxidizing chemicals may accelerate the burning rate in a fire situation.

## Section 6. Accidental Release Measures

### **Spill or Leak Instructions**

Eliminate ignition sources. See Section 8 for appropriate personal protective equipment. Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. If fire potential exists, blanket spill with alcohol type aqueous film forming foam or use water fog stream to disperse vapors. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Isolate for 800 meters or 0.5 miles in all directions if tank, rail car, or tank truck is involved in fire. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

## Section 7. Handling and Storage

### **Handling:**

Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing. This product may generate a static charge. Ground/bond equipment when transferring material to prevent static accumulation. Electrical equipment and circuits in all storage and handling must conform to requirements of National Electric Code (Article 500 and 501) for hazardous location.

### **Storage:**

Keep all containers tightly closed when not in use. Store out of direct sunlight and on an impermeable floor. Do not store with incompatible materials. See Section 10. Stability and Reactivity.

## Section 8. Exposure Controls, Personal Protection

**Engineering Controls:** General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred.

**Protective Equipment:** A safety shower and eyebath should be readily available.

**Skin protection:**

Wear impervious clothing and gloves to prevent contact. Neoprene is recommended. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

**Eye/face protection:**

Wear chemical goggles when there is a reasonable chance of eye contact.

**Respiratory protection:**

Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level. To estimate an occupational exposure level see Section 3, Section 8 and Section 11.

For concentrations > 1 and < 10 times the occupational exposure level: Use airpurifying respirator with full facepiece and organic vapor cartridge(s) or air-purifying full facepiece respirator with an organic vapor canister or a full facepiece powered air-purifying respirator fitted with organic vapor cartridge(s). The air purifying element must have an end of service life indicator, or a documented change out schedule must be established. Otherwise, use supplied air.

For concentrations more than 10 times the occupational exposure level and less than the lower of either 100 times the occupational exposure level or the IDLH: Use Type C full facepiece supplied-air respirator operated in positive-pressure or continuous flow mode.

For concentrations > 100 times the occupational exposure level or greater than the IDLH level or unknown concentrations (such as in emergencies): Use self-contained breathing apparatus with full facepiece in positive-pressure mode or Type C positive-pressure full facepiece supplied-air respirator with an auxiliary positive pressure self-contained breathing apparatus escape system.

**For escape:**

Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

**Section 9. Physical /Chemical Properties**

Appearance : Clear, colorless, mobile liquid	Odor: Mild, characteristic "ketone" odor.
Molecular Weight: 116.0	Vapor Density (Air=1 @ 20°C): 4.0
Boiling Point (760 mmHgA): 169.2 °C	Flash Point: 58°C (close cup)
Specific Gravity: 0.94	Solubility in Water @ 20°C: 100%

**Section 10. Stability and Reactivity**

Stability: Stable.
<b>Conditions to Avoid:</b> Avoid heat, flames, sparks, and other sources of ignition.
<b>Incompatibility:</b> Keep away from sulfuric and other strong inorganic acids, aluminum or lead (including equipment made of these metals), and oxidizing agents such as peroxides, nitric acid, perchloric acid or chromium trioxide.
<b>Hazardous Combustion or Decomposition Products:</b> Thermal decomposition products may include oxides of carbon.
<b>Hazardous Polymerization:</b> Hazardous polymerization will not occur.

**Section 11. Toxicological Information**

<b>Acute Exposure:</b> Oral LD50 : 4 g/kg (rats); slightly toxic to animals. CNS depression, respiratory depression, decreased blood pressure, anemia, liver and kidney damage have been reported in animals at high dose levels near the LD50.
<b>Dermal LD50 :</b> 13 g/kg (rabbits); slightly toxic to animals. Diacetone alcohol is not considered a contact sensitizer in guinea pigs.

**Inhalation :**

Practically non-toxic to animals (no deaths in rats after 8 hr. saturated vapor exposure).

**Eye:** moderately irritating to rabbit eyes.

**Mutagenicity :** In vitro, not mutagenic in bacteria and yeast; weakly mutagenic in rat liver cells at high concentrations. In vivo, no information.

**Other :** Causes liver and kidney damage in animals via repeated inhalation or oral exposure at high concentrations. Causes potentiation of chloroform-induced liver injury in laboratory animals via oral exposure.

**Section 12. Ecological Information**

**Ecotoxicity:** Ecotoxicity in water (LC50): 420 mg/L/96hours [Lepomis macrochirus].  
(EC50): 8750 mg/L 24hours [water flea].

**Persistence and Degradability:** Not available.

**Toxicity of the Products of Biodegradation:** Not available.

**Special Remarks on the Products of Biodegradation:** Not available.

**Section 13. Disposal Considerations**

Dispose of spilled material in accordance with state and local regulations for hazardous waste. Recommended methods are incineration or biological treatment at a federally or state-permitted disposal facility. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

EPA Hazardous Waste Code(s): D001

**Section 14. Transport Information**

US Department of Transportation:

UN/NA Number: UN 1148

Shipping name: DIACETONE ALCOHOL

Hazard class: 3

Packing Group: PG III

Emergency Response Guide: 129

ICAO/IATA:

IATA UN Number: UN 1148

Proper Shipping Name: DIACETONE ALCOHOL

Hazard Classification: 3

Packing group: III

Label: (Flammable Liquid)

IMDG:

International Marine UN Number: UN 1148

Proper Shipping Name: DIACETONE ALCOHOL

Hazard Class: 3

Packing Group: III

Transport Canada

Proper Shipping Name: DIACETONE ALCOHOL

Trade Information Schedule B Code (export): 2914.40.1000
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### Section 15. Regulatory Information

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### Section 16. Additional Information

Remark	" - " means no data , and " /" means not suitable.
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- ⊗ This information is only suitable for this product, and It does not suit that if this product is to be a additive agent or mixed with other chemicals.
- ⊗ The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.