

MATERIAL SAFETY DATA SHEET

4-Hydroxy-4-methyl-2-pentanone

MSDS Name:	4-Hydroxy-4-methyl-2-pentanone
Synonyms:	Diacetone alcohol; 4-Hydroxy-4-methylpentan-2-one; 4-Hydroxy-2-keto-4-methylpentane
Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
For information in the INDIA, call:	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

Section 2 - Composition, Information on Ingredients

CAS#:	123-42-2
Chemical Name:	Diacetone alcohol
%:	99
EINECS#:	204-626-7
Hazard Symbols:	XI
Risk Phrases:	36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritating to eyes. Potential Health Effects

Eye:	Causes severe eye irritation. May cause transient corneal injury.
Skin:	Causes skin irritation. Prolonged and/or repeated contact may defatting of the skin and dermatitis.
Ingestion:	May cause gastrointestinal irritation with nausea, vomiting diarrhea. May cause headache. May cause unconsciousness. May central nervous system depression.
Inhalation:	Causes respiratory tract irritation. May cause effects similar those described for ingestion. May cause narcotic effects in concentration. Overexposure may produce irritation of the nose and throat.
Chronic:	Prolonged or repeated skin contact may cause dermatitis

Section 4 - First Aid Measures

Eyes:	In case of contact, immediately flush eyes with plenty of water at least 15 minutes. Get medical aid immediately.
Skin:	In case of contact, flush skin with plenty of water. Contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
Ingestion:	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Containers may explode when heated. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventilation. Use only non-sparking tools and equipment.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist.

Storage: Keep away from sources of ignition. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design.

Exposure Limits

CAS# 123-42-2:	
United Kingdom, WEL - TWA:	50 ppm TWA; 241 mg/m ³ TWA
United Kingdom, WEL - STEL:	75 ppm STEL; 362 mg/m ³ STEL
United States OSHA:	50 ppm TWA; 240 mg/m ³ TWA
Belgium - TWA:	50 ppm TWA; 241 mg/m ³ TWA
France - VME:	50 ppm VME; 240 mg/m ³ VME
Germany:	20 ppm TWA (exposure factor 2); 96 mg/m ³ TWA (exposure factor 2)
Germany:	skin notation
Malaysia:	50 ppm TWA; 238 mg/m ³ TWA

Netherlands:	25 ppm MAC; 120 mg/m ³ MAC
Spain:	50 ppm VLA-ED; 241 mg/m ³ VLA-ED

Personal Protective Equipment

Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	colorless
Odor:	objectionable
pH:	Not available
Vapor Pressure:	1.71 mm Hg @ 25 deg C
Viscosity:	Not available
Boiling Point:	166 deg C (330.80 F)
Freezing/Melting Point:	-42.8 deg C (-45.04 F)
Autoignition Temperature:	603 deg C (1,117.40 deg F)
Flash Point:	58 deg C (136.40 deg F)
Explosion Limits:	Lower:1.8%
Explosion Limits:	Upper:6.9%
Decomposition Temperature:	Not available
Solubility in water:	Freely Soluble
Specific Gravity/Density:	0.9
Molecular Formula:	C ₆ H ₁₂ O ₂
Molecular Weight:	116.16

Section 10 - Stability and Reactivity

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions. Becomes yellow over time.

Conditions to Avoid:

Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials Strong oxidizing agents, acids. Hazardous Decomposition Products Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide. Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 123-42-2: SA9100000 LD50/LC50:
RTECS:	CAS# 123-42-2: Draize test, rabbit, eye: 20 mg
Severe;	Draize test, rabbit, eye: 100 uL/24H Severe; Oral,
mouse:	LD50 = 3950 mg/kg; Oral, mouse: LD50 = 3000 mg/kg; Oral,
rat: mg/kg; Skin,	LD50 = 2520 mg/kg; Oral, rat: LD50 = 4000

rabbit:	LD50 = 13500 mg/kg;
Carcinogenicity:	Diacetone alcohol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Water flea Bluegill/Sunfish: 8750 mg/L; 48 hrs.; EC50 Microtox testFish: Bluegill/Sunfish: 420 mg/L; 96 Hrs.; LC50, static conditions, 23 C

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

IATA	
Shipping Name:	DIACETONE ALCOHOL
Hazard Class:	3
UN Number:	1148
Packing Group:	III
IMO	
Shipping Name:	DIACETONE ALCOHOL
Hazard Class:	3.3
UN Number:	1148
Packing Group:	III
RID/ADR	
Shipping Name:	DIACETONE ALCOHOL
Hazard Class:	3
UN Number:	1148
Packing Group:	III

Section 15 - Regulatory Information

European/International Regulations European Labeling in Accordance with EC Directives	
Hazard Symbols:	XI
Risk Phrases:	R 36 Irritating to eyes.
Safety Phrases:	S 24/25 Avoid contact with skin and eyes.
WGK (Water Danger/Protection) CAS# 123-42-2:	1
Canada	CAS# 123-42-2 is listed on Canada's DSL List
US Federal	TSCA
CAS# 123-42-2.	is listed on the TSCA Inventory

Section 16 - Other Information

MSDS Creation Date:	July 24, 2015
Revision #0 Date:	

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. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.