

Common Name: **DIACETONE ALCOHOL**

Synonyms: 2-Methyl-2-Pentanol-4-One

CAS No: 123-42-2

 Molecular Formula: C₆H₁₂O₂

RTK Substance No: 0606

Description: Clear, colorless liquid with a pleasant odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
1 - Health 2 - Fire 0 - Reactivity DOT#: UN 1148 ERG Guide #: 129 Hazard Class: 3 (Flammable)	COMBUSTIBLE LIQUID Use dry chemical, CO ₂ , water spray or alcohol-resistant foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source.	Diacetone Alcohol reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) to form flammable and explosive <i>Hydrogen gas</i> . Diacetone Alcohol is decomposed by STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); and AMINES to form <i>Acetone</i> and <i>Mesityl Alcohol</i> .

SPILL/LEAKS

Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and place into sealed containers for disposal.

DO NOT wash into sewer.

PHYSICAL PROPERTIES

Odor Threshold:	0.28 ppm
Flash Point:	126° to 147°F (52° to 64°C)
LEL:	1.8%
UEL:	6.9%
Auto Ignition Temp:	1,118° to 1,190°F (603° to 643°C)
Vapor Density:	4 (air = 1)
Vapor Pressure:	1 mm Hg at 68°F (20°C)
Specific Gravity:	0.94 (water = 1)
Water Solubility:	Miscible
Boiling Point:	328° to 334°F (164° to 168°C)
Freezing Point:	-45° to -53°F (-43° to -47°C)
Molecular Weight:	116.2

EXPOSURE LIMITS

OSHA: 50 ppm, 8-hr TWA

NIOSH: 50 ppm, 10-hr TWA

ACGIH: 50 ppm, 8-hr TWA

IDLH: 1,800 ppm

The Protective Action Criteria values are:

PAC-1 = 50 ppm PAC-2 = 50 ppm PAC-3 = 1,800 ppm

PROTECTIVE EQUIPMENT

Gloves:	Butyl and Barrier® (>8-hr breakthrough)
Coveralls:	Tychem® BR and Responder®, and Trelchem® HPS and VPS (>8-hr breakthrough for <i>Ketones</i>)
Respirator:	>50 ppm - full facepiece APR with <i>Organic vapor</i> cartridges >500 ppm - SCBA

HEALTH EFFECTS

Eyes:	Irritation
Skin:	Irritation
Inhalation:	Nose and throat irritation with coughing and wheezing Headache, dizziness, weakness, lightheadedness, and passing out

FIRST AID AND DECONTAMINATION

Remove	the person from exposure.
Flush	eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.
Quickly	remove contaminated clothing and wash contaminated skin with large amounts of soap and water.
Begin	artificial respiration if breathing has stopped and CPR if necessary.
Transfer	promptly to a medical facility.