

Common Name: **ACETONE**

Synonyms: Dimethyl Ketone; 2-Propanone

CAS No: 67-64-1

Molecular Formula: C₃H₆O

RTK Substance No: 0006

Description: Clear, colorless liquid with a sweet odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p>1 - Health</p> <p>3 - Fire</p> <p>0 - Reactivity</p> <p>DOT#: UN 1090</p> <p>ERG Guide #: 127</p> <p>Hazard Class: 3</p> <p>(Flammable)</p>	<p>FLAMMABLE LIQUID.</p> <p>Use dry chemical, CO₂, water spray or alcohol-resistant foam as extinguishing agents.</p> <p>Water may not be effective in fighting fires.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE.</p> <p>CONTAINERS MAY EXPLODE IN FIRE.</p> <p>Use water spray to keep fire-exposed containers cool.</p> <p>Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source and flashback.</p> <p>Acetone may form an ignitable vapor/air mixture in closed tanks or containers.</p>	<p>Acetone may explode when mixed with NITROSYL PERCHLORATE; and CHLOROFORM or BROMOFORM in the presence of a BASE.</p> <p>Acetone reacts with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); ACETIC ACID; and NITRIC ACID to form explosive <i>peroxides</i>.</p> <p>Acetone attacks PLASTICS.</p>

SPILL/LEAKS

Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in dry sand, earth, or a similar material and place into sealed containers for disposal. Use only non-sparking tools and equipment.

Metal containers involving the transfer of **Acetone** should be grounded and bonded.

Keep **Acetone** out of confined spaces, such as sewers, because of the possibility of an explosion.

DO NOT wash into sewer as **Acetone** is dangerous to aquatic life in high concentrations.

PHYSICAL PROPERTIES

Odor Threshold:	13 to 62 ppm
Flash Point:	-4 °F (-20 °C)
LEL:	2.5%
UEL:	12.8%
Auto Ignition Temp:	869 °F (465 °C)
Vapor Density:	2 (air = 1)
Vapor Pressure:	180 mm Hg at 68 °F (20 °C)
Specific Gravity:	0.8 (water = 1)
Water Solubility:	Soluble
Boiling Point:	133 °F (56 °C)
Freezing Point:	-140 °F (95.6 °C)
Ionization Potential:	9.69 eV
Molecular Weight:	58.1

EXPOSURE LIMITS

OSHA: 1,000 ppm, 8-hr TWA

NIOSH: 250 ppm, 10-hr TWA

ACGIH: 500 ppm, 8-hr TWA; 750 ppm, STEL

IDLH: 2,500 ppm

The Protective Action Criteria values are:

PAC-1 = 200 ppm PAC-2 = 3,200 ppm

PAC-3 = 5,700 ppm

PROTECTIVE EQUIPMENT

Gloves: Butyl, Silver Shield®/4H® and Barrier® (>8-hr breakthrough)

Coveralls: Tychem® BR, CSM and TK; Trelchem® HPS and VPS (>8-hr breakthrough)

Respirator: >250 ppm - full facepiece APR with *Organic vapor cartridges*
>2,500 ppm - SCBA

HEALTH EFFECTS

Eyes: Irritation

Skin: Irritation

Inhalation: Nose and throat irritation with coughing and wheezing

Headache, nausea and vomiting, dizziness, lightheadedness and even 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.