

Common Name: **ACETOPHENONE**

Synonyms: Acetyl Benzene; Phenyl Methyl Ketone

CAS No: 98-86-2

Molecular Formula: C<sub>8</sub>H<sub>8</sub>O

RTK Substance No: 2961

Description: Colorless to yellow-tinted liquid with a sweet, strong odor

### HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<b>2 - Health</b> <b>2 - Fire</b> <b>0 - Reactivity</b> <b>DOT#:</b> UN 1993 <b>ERG Guide #:</b> 128 <b>Hazard Class:</b> 3 (Flammable)	<b>COMBUSTIBLE LIQUID</b> Use dry chemical, CO <sub>2</sub> , water spray or foam as extinguishing agents. <b>POISONOUS GASES ARE PRODUCED IN FIRE.</b> Use water spray to keep fire-exposed containers cool.	<b>Acetophenone</b> may react with <b>STRONG ACIDS</b> (such as <b>HYDROCHLORIC, SULFURIC and NITRIC</b> ); <b>REDUCING AGENTS</b> (such as <b>LITHIUM, SODIUM, ALUMINUM</b> and their <b>HYDRIDES</b> ); and <b>STRONG BASES</b> (such as <b>SODIUM HYDROXIDE</b> and <b>POTASSIUM HYDROXIDE</b> ) to produce heat and flammable and explosive <i>Hydrogen gas</i> . <b>Acetophenone</b> is not compatible with <b>OXIDIZING AGENTS</b> (such as <b>PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE</b> and <b>FLUORINE</b> ); <b>CYANIDES</b> ; <b>ALDEHYDES</b> ; and <b>ANHYDRIDES</b> .

### 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.

Use only non-sparking tools and equipment, especially when opening and closing containers of **Acetophenone**.

### PHYSICAL PROPERTIES

<b>Odor Threshold:</b>	0.36 to 0.6 ppm
<b>Flash Point:</b>	170°F (77°C) to 180°F (82°C)
<b>LEL:</b>	1.1%
<b>UEL:</b>	6.7 %
<b>Auto Ignition Temp:</b>	1,058°F (570°C)
<b>Vapor Density:</b>	4.1 (air = 1)
<b>Vapor Pressure:</b>	1 mm Hg at 60°F (16°C)
<b>Specific Gravity:</b>	1 (water = 1)
<b>Water Solubility:</b>	Insoluble
<b>Boiling Point:</b>	396°F (202°C)
<b>Freezing Point:</b>	68°F (20°C)
<b>Ionization Potential:</b>	9.28 eV
<b>Molecular Weight:</b>	120.15

### EXPOSURE LIMITS

**ACGIH:** 10 ppm, 8-hr TWA

The Protective Action Criteria values are:

PAC-1 = 6 ppm

PAC-2 = 10 ppm

PAC-3 = 71 ppm

### PROTECTIVE EQUIPMENT

<b>Gloves:</b>	Butyl, Neoprene, Silver Shield®/4H® and Viton (>8-hr breakthrough)
<b>Coveralls:</b>	Tychem® CPF 4 and Responder® (>8-hr breakthrough for <i>Ketones, aromatic</i> )
<b>Respirator:</b>	>10 ppm - full facepiece APR with <i>Organic Vapor</i> filters >70 ppm - SCBA

### HEALTH EFFECTS

<b>Eyes:</b>	Irritation and burns
<b>Skin:</b>	Irritation and burns
<b>Inhalation:</b>	Nose and throat irritation with coughing and wheezing Headache, dizziness, nausea and loss of coordination

### FIRST AID AND DECONTAMINATION

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