

Common Name: **ACETOPHENONE**

Synonyms: Acetyl Benzene; Phenyl Methyl Ketone

CAS No: 98-86-2

Molecular Formula: C₈H₈O

RTK Substance No: 2961

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

HAZARD DATA

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

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

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

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

HEALTH EFFECTS

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

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. Seek medical attention.
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.