



# Right to Know Hazardous Substance Fact Sheet



Common Name: **ETHYL ALCOHOL**

Synonyms: Alcohol; Ethanol; Methylcarbinol

CAS No: 64-17-5

Molecular Formula: C<sub>2</sub>H<sub>5</sub>OH

RTK Substance No: 0844

Description: Clear, colorless liquid with a wine-like odor

## HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<b>2 - Health</b> <b>3 - Fire</b> <b>0 - Reactivity</b> DOT#: UN 1170 ERG Guide #: 127 Hazard Class: 3 (Flammable)	<b>FLAMMABLE LIQUID</b> Use dry chemical, CO <sub>2</sub> , water spray or alcohol-resistant foam as extinguishing agents. Solid streams of water may be ineffective. <b>POISONOUS GASES ARE PRODUCED IN FIRE.</b> <b>CONTAINERS MAY EXPLODE IN FIRE.</b> 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 and flashback. <b>Ethyl Alcohol</b> may form an ignitable vapor/air mixture in closed tanks or containers.	<b>Ethyl Alcohol</b> reacts violently with ACETYL BROMIDE and ACETYL CHLORIDE. Contact with <i>concentrated</i> SULFURIC ACID; POTASSIUM; and HYDROGEN PEROXIDE can cause explosions. <b>Ethyl Alcohol</b> will react with PLATINUM BLACK; CALCIUM HYPOCHLORITE; SILVER OXIDE; AMMONIA; NITRIC ACID; MERCURIC NITRATE; SILVER NITRATE; MAGNESIUM PERCHLORATE; and other STRONG OXIDIZERS to cause fire and explosions. <b>Ethyl Alcohol</b> reacts violently with ISOCYANATES; MINERAL ACIDS; and CHLOROFORM. Protect from SUNLIGHT.

## SPILL/LEAKS

### Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

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

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

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

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

**Ethyl Alcohol** may affect aquatic life.

## PHYSICAL PROPERTIES

<b>Odor Threshold:</b>	84 ppm
<b>Flash Point:</b>	55 °F (13 °C)
<b>LEL:</b>	3%
<b>UEL:</b>	19%
<b>Auto Ignition Temp:</b>	685 °F (363 °C)
<b>Vapor Density:</b>	1.59 (air = 1)
<b>Vapor Pressure:</b>	44 mm Hg at 68 °F (20 °C)
<b>Specific Gravity:</b>	0.79 (water = 1)
<b>Water Solubility:</b>	Soluble
<b>Boiling Point:</b>	173 °F (78 °C)
<b>Melting Point:</b>	-173 °F (-114 °C)
<b>Ionization Potential:</b>	10.47 eV
<b>Molecular Weight:</b>	46.1

## EXPOSURE LIMITS

**OSHA:** 1,000 ppm, 8-hr TWA

**NIOSH:** 1,000 ppm, 10-hr TWA

**ACGIH:** 1,000 ppm, STEL

**IDLH:** 3,300 ppm

The Protective Action Criteria values are:

PAC-1 = 1,800 ppm    PAC-2 = 3,300 ppm

PAC-3 = 15,000 ppm

## PROTECTIVE EQUIPMENT

<b>Gloves:</b>	Butyl, Neoprene, Silver Shield®/4H®, Viton, Viton/Butyl and Barrier® (>8-hr breakthrough)
<b>Coveralls:</b>	Tychem® CPF 3 (>8-hr breakthrough)
<b>Respirator:</b>	>1,000 ppm - SCBA

## HEALTH EFFECTS

**Eyes:** Irritation

**Skin:** Irritation

**Inhalation:** Nose, throat and lung irritation with coughing and shortness of breath  
Headache, drowsiness, nausea and vomiting, and unconsciousness

## 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.