

Common Name: **CYCLOPROPANE**

Synonym: Trimethylene

CAS No: 75-19-4

Molecular Formula: C<sub>3</sub>H<sub>6</sub>

RTK Substance No: 0588

Description: Colorless gas, or a liquid under pressure, with a mild, sweet, *Petroleum*-like odor

### HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<b>1 - Health</b> <b>4 - Fire</b> <b>0 - Reactivity</b> <b>DOT#:</b> UN 1027 <b>ERG Guide #:</b> 115 <b>Hazard Class:</b> 2.1 (Flammable gas)	<b>Cyclopropane</b> is a <b>FLAMMABLE GAS</b> . DO NOT extinguish fire unless flow can be stopped. Use water in flooding quantities. <b>POISONOUS GASES ARE PRODUCED IN FIRE.</b> <b>CYLINDERS MAY EXPLODE IN FIRE.</b> Use water spray to keep fire-exposed containers cool. Vapors may travel to a source of ignition and flash back. Flow or agitation may generate electrostatic charge.	<b>Cyclopropane</b> may react with <b>OXIDIZING AGENTS</b> (such as <b>PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE</b> and <b>FLUORINE</b> ) to cause fires and explosions.

### SPILL/LEAKS

**Isolation Distance:**

Spill: 800 meters (1/2 mile)

Fire: 1,600 meters (1 mile)

If **Cyclopropane** is leaked, take the following steps:

Stop flow of gas. If source of leak is a cylinder and the leak cannot be stopped in place, remove the leaking cylinder to a safe place in the open air, and repair leak or allow cylinder to empty.

Keep **Cyclopropane** out of confined spaces, such as sewers, because of the possibility of an explosion. DO NOT wash into sewer.

### PHYSICAL PROPERTIES

<b>Odor Threshold:</b>	<i>Petroleum</i> -like odor
<b>Flash Point:</b>	Flammable gas
<b>LEL:</b>	2.4%
<b>UEL:</b>	10.4%
<b>Auto Ignition Temp:</b>	928°F (498°C)
<b>Vapor Density:</b>	1.5 (air = 1)
<b>Vapor Pressure:</b>	5,400 mm Hg at 77°F (25°C)
<b>Specific Gravity:</b>	0.68 (water = 1)
<b>Water Solubility:</b>	Insoluble
<b>Boiling Point:</b>	-29°F (-34°C)
<b>Freezing Point:</b>	-197°F (-127°C)
<b>Ionization Potential:</b>	9.86 eV
<b>Molecular Weight:</b>	42

### EXPOSURE LIMITS

The Protective Action Criteria values are:

PAC-1 = 600 ppm

PAC-2 = 4,000 ppm

PAC-3 = 6,000 ppm

### PROTECTIVE EQUIPMENT

<b>Gloves:</b>	Silver Shield®/4H®, Viton and Barrier® over insulated gloves (>8-hr breakthrough for <i>Hydrocarbons, aliphatic, saturated</i> )
<b>Coveralls:</b>	Tychem® CPF 3, F, BR, LV, Responder®, and TK; and Trelchem® HPS and VPS (>8-hr breakthrough for <i>Hydrocarbons, aliphatic, saturated</i> )
<b>Respirator:</b>	>600 ppm - SCBA

### HEALTH EFFECTS

<b>Eyes:</b>	Contact with liquid causes frostbite
<b>Skin:</b>	Contact with liquid causes frostbite
<b>Inhalation:</b>	Headache, dizziness, nausea, loss of coordination, lightheadedness, and passing out
<b>Chronic:</b>	Irregular heartbeats (arrhythmias), difficulty breathing, coma and death

### 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>Immerse</b>	affected part in warm water. Seek medical attention.
<b>Begin</b>	artificial respiration if breathing has stopped and CPR if necessary.
<b>Transfer</b>	promptly to a medical facility.