

# ISOBUTYLENE



CAS No.	<a href="#">115-11-7</a>
Chemical Name:	<b>ISOBUTYLENE</b>
Synonyms:	Isobuten;iso-C4H8;ISOBUTENE;ISOBUTYLENE;Methylpropen;Methylpropene;HISOBUTYLENE;gamma-Butylene;2-METHYLPROPENE;2-methylpropen
CBNumber:	CB4763080
Molecular Formula:	C4H8
Formula Weight:	56.11
MOL File:	<a href="#">115-11-7.mol</a>

## ISOBUTYLENE Property

mp : -140 °C

bp : -6.9 °C(lit.)

density : 0.5879

vapor density : 2 (vs air)

vapor pressure : 3278 mm Hg ( 37.7 °C)

refractive index : 1.3811

Fp : -80 °C

FreezingPoint : -140.34°C

Merck : 5141

Stability:: Stable. Highly flammable - readily forms an explosive mixture with air. Incompatibility

CAS DataBase Reference: [115-11-7\(CAS DataBase Reference\)](#)

## Safety

Hazard Codes : F+

Risk Statements : 12

Safety Statements : [9-16-33](#)

RIDADR : UN 1055 2.1

WGK Germany : -

RTECS : UD0890000

F : [4.5-31](#)

HazardClass : 2.1

## ISOBUTYLENE Chemical Properties,Usage,Production

### Chemical Properties

colourless gas

### General Description

ISOBUTYLENE is a colorless gas with a faint petroleum-like odor. For transportation ISOBUTYLENE may be shipped as a liquefied gas under its own vapor pressure. Contact with the liquid can cause frostbite. ISOBUTYLENE is heavier than air and a flame can flash back to the source of leak very easily. The leak can either be a liquid or a vapor. It can displace oxygen and asphyxiate by the displacement of air. Under prolonged exposure to fire or heat the containers may rupture and decompose. ISOBUTYLENE is used in the production of isoctane, a high octane aviation gasoline.

### Air & Water Reactions

Highly flammable.

### Reactivity Profile

ISOBUTYLENE is incompatible with oxidizers. ISOBUTYLENE polymerizes easily. ISOBUTYLENE reacts with many strong oxidants such as alkyl halides, halogens, concentrated sulfuric acid, hypochlorous acid, aluminum chloride, carbon monoxide, and nitrogen dioxide. Polymerization is catalyzed by aluminum chloride and boron trifluoride.

### Health Hazard

Inhalation of moderate concentrations causes dizziness, drowsiness, and unconsciousness. Contact with eyes may cause frostbite.

### Fire Hazard

Behavior in Fire: Containers may explode in fire. Vapor is heavier than air and may travel a long distance to find an ignition source.

## ISOBUTYLENE Preparation Products And Raw materials

### Raw materials

[tert-Butyl methyl ether](#) [ISOBUTANE](#) [URANIUM](#) [tert-Butanol](#) [Aluminum oxide](#)

### Preparation Products

[Petroleum additive](#) [tert-Butylhydroquinone](#) [4,4'-Thiobis\(6-tert-butyl-m-cresol\)](#) [4-tert-Butylcatechol](#) [4-tert-Butylcatechol](#) [HYDROXY-5-TERT-BUTYLPHENYL\)BUTANE](#) [2,3-Dihydro-2,2-dimethyl-7-benzofuranol](#) [2-chloro-2-methylpropane](#) [2-methylpropanesulfonic acid](#) [Propofol](#) [2-chloro-2-trichloroethyl-3 , 3-dimethyl cyclobutene](#) [Pivalic acid](#) [hydroxyphenyl\)propionate](#) [2-\(2'-Hydroxy-3',5'-di-tert-butylphenyl\)-5-chlorobenzotriazole](#) [2,4-Di-tert-butylphenyl](#) [type](#) [Methyl 2-methylbutyrate](#) [Triisobutylaluminium](#) [2-tert-Butyl-4-methylphenol](#) [6-tert-Butyl-m-cresol](#) [N-Bromosuccinimide](#) [EXXON BUTYL RUBBER 065](#) [FEMA 2961](#) [ALDICARB-OXIME](#) [POLYISOBUTYLENE](#) [Antioxidant](#) [Di-tert-butyl-4-methylphenol](#) [2,6-Di-tert-butylphenol](#) [2,2'-Methylenebis\(6-tert-butyl-4-methylphenol\)](#) [Methyl 2-methylbutyrate](#)

hexadiene [Isobutetyl sulfide](#) [2,2-DIMETHYL-3-\(2-METHYLPROP-1-ENYL\)CYCLOPROPANECARBO](#)  
[methylpropene](#) [2-Methyl-2-propanethiol](#) [2,2,4-Trimethylpentane](#) [Isobutyronitrile](#)