

Common Name: **tert-BUTYL ALCOHOL**

Synonyms: t-Butanol; Trimethyl Carbinol

CAS No: 75-65-0

 Molecular Formula: C₄H₁₀O

RTK Substance No: 1787

Description: Colorless liquid or crystalline solid with a mothball-like odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
2 - Health 3 - Fire 0 - Reactivity DOT#: UN 1120 ERG Guide #: 129 Hazard Class: 3 (Flammable liquids)	tert-Butyl Alcohol is a FLAMMABLE LIQUID or SOLID. Use dry chemical, CO ₂ , alcohol-resistant foam or other foaming agent as extinguishing agents, as water may not be effective in fighting fires. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Isobutylene</i> . CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Vapors may travel to a source of ignition and flash back. Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source.	tert-Butyl Alcohol reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); ALKALI METALS (such as LITHIUM, SODIUM and POTASSIUM) and ALKALINE EARTH METALS (such as BERYLLIUM, MAGNESIUM and CALCIUM) to produce flammable and explosive <i>Hydrogen gas</i> . tert-Butyl Alcohol is not compatible with STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); ALIPHATIC AMINES; ISOCYANATES; ACETALDEHYDE; and some ZINC, CHROMIUM and ALUMINUM COMPOUNDS. tert-Butyl Alcohol will decompose on contact with STRONG MINERAL ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) to produce flammable <i>Isobutylene gas</i> .

SPILL/LEAKS

Isolation Distance:

Small Spill: 60 meters (200 feet)

Large Spill: 270 meters (900 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.

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

Bioconcentrations in aquatic life are low.

PHYSICAL PROPERTIES

Odor Threshold:	47 ppm
Flash Point:	52°F (11°C)
LEL:	2.4%
UEL:	8.0%
Vapor Density:	2.55 (air = 1)
Vapor Pressure:	40 mm Hg at 77°F (25°C)
Specific Gravity:	0.78 (water = 1)
Water Solubility:	Soluble
Boiling Point:	180°F (82.4°C)
Melting Point:	78°F (25.7°C)
Ionization Potential:	9.7 eV
Molecular Weight:	74.1

EXPOSURE LIMITS

OSHA:	100 ppm, 8-hr TWA
NIOSH:	100 ppm, 10-hr TWA; 150 ppm, STEL
ACGIH:	100 ppm, 8-hr TWA
IDLH LEVEL:	1,600 ppm

PROTECTIVE EQUIPMENT

Gloves:	Butyl, Nitrile, Neoprene, Silver Shield® and Viton
Coveralls:	DuPont Tychem® CSM, Responder® and TK; Kappler Zytron® 300; and Saint-Gobain ONESuit®TEC for <i>toxic liquids</i>
Respirator:	>100 ppm - Full facepiece APR with Organic vapor filter >1,000 ppm - Supplied air

HEALTH EFFECTS

Eyes:	Irritation
Skin:	Irritation, drying, cracking and redness
Inhalation:	Nose and throat irritation with coughing and wheezing and shortness of breath Headache, dizziness, confusion and passing out

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 water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.