



## 2-Butoxyethyl acetate (2-Butoxyethanol acetate)

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CAS Number: 112-07-2

2-Butoxyethyl acetate is a colorless liquid with a fruity odor. It is only moderately soluble in water but is soluble in most organic solvents. 2-Butoxyethyl acetate is a fire hazard when exposed to heat, sparks, flames, or oxidizers. It has been found in air, water, and soil as a contaminant (ATSDR).

### Usage and exposure

2-Butoxyethyl acetate is widely used as a slow evaporating solvent for lacquers, varnishes, epoxy resins, and enamels. It is also used in polyvinyl acetate latex, and it may be used in some ink and spot remover formulations. People who use these products at work or at home can be exposed by inhaling the vapors or by skin or eye contact. Exposure only occurs while these products are being used or while they are drying.

2-Butoxyethyl acetate is directly released to the atmosphere by evaporation while it is being used as a solvent in paints, lacquers, thinners, inks, ink and spot removers, and resins. 2-Butoxyethyl acetate probably exists almost entirely as a vapor in outdoor air. It can be removed from the air by precipitation because it is moderately soluble in water. In air, 2-Butoxyethyl acetate may also break down to other compounds within a few days. 2-Butoxyethanol acetate breaks down more slowly in water and soil than it does in air. It can move out of contaminated soil and move into groundwater [ATSDR].

Many people are exposed to small amounts of 2-Butoxyethyl acetate every day. People can be exposed to this chemical in the environment, in the workplace, and at home. Higher exposures usually occur in the workplace rather than in the environment or at home.

The general population is exposed and 2-Butoxyethyl acetate mainly by breathing air or having skin contact with liquids, particularly household cleaners, that contain these compounds [ATSDR].

### Routs of exposure:

Respiratory system, skin.

Industrial exposures are most likely through inhalation of vapors, although excessive contact with eyes and skin may also occur [ATSDR].

### **Target organs:**

Upper respiratory tract, skin, eye, mucous membrane.

### **Metabolism:**

There are no published reports of the toxic effects of 2-butoxyethyl acetate in man [onlinelibrary.wiley].

According to in vitro data 2-Butoxyethyl acetate in toxic doses causes lysis of the red blood cells and, in consequence, haemoglobinuria and sometimes kidney damage. After incorporation of 2-butoxyethyl acetate, the acetate group is removed relatively rapidly by hydrolysis. The half-life of the substance in rat plasma in vitro is about 1 to 3 minute [onlinelibrary.wiley].

According to in vitro data 2-Butoxyethyl acetate reaches a maximum blood concentration rapidly after exposure whichever the route of exposure and rapidly metabolized (with a plasmatic half-life of about an hour). After absorption, the substance is distributed by the blood way to all organs. The blood peak is reached in the 2 hours after a skin or inhalation absorption. The main metabolism pathway leads to the formation of butoxyacetic acid [BAA] Elimination is rapid and mainly via urinary route (80 to 90 % of the metabolites) [ECHA].

The following absorption rates of 2-Butoxyethyl acetate:

For 100% via oral route;

60% via inhalation route;

Dermal penetration of liquid 2-Butoxyethyl acetate would be of about 30 % and vapour 2-Butoxyethyl acetate of about 39 % [ECHA]

### **Health hazards:**

Inhaling the vapors of 2-Butoxyethyl acetate causes cough, headache, dizziness, drowsiness, nausea [CDC].

2-Butoxyethyl acetate may be absorbed through the skin.

Skin contact with liquid and vapors causes redness of skin, dry skin [CDC].

There are no teratogenicity studies with 2-butoxyethyl acetate [onlinelibrary.wiley].

## References:

- ATSDR. Public Health Statement for 2-Butoxyethanol and 2-Butoxyethanol Acetate.  
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