

Toxic Chemicals in Tobacco

Cigarette smoke contains more than 7,000 chemicals. More than 70 are known to cause cancer. Tobacco products include cigarettes, electronic nicotine delivery systems (ENDS,

includes e-cigarettes and JUUL[®]), smokeless tobacco (dip or chew), cigars, hookahs and pipes. Some of the chemicals are listed below.

Chemical and Main Uses	Chemical and Main Uses
acetone: used in fingernail polish remover	formaldehyde: used to embalm (preserve) bodies
ammonia: used in household cleaners and in liquid fertilizers	hydrogen cyanide: used to kill insects and to make plastics and dyes
arsenic: used in rat poison and to preserve animal hides	lead: heavy metal found in old paints
beryllium: found in nuclear weapons	methane: used as a fuel (natural gas) and to make plastics and fertilizer
cadmium: used in batteries and many kinds of solder	nicotine: naturally found in tobacco. It can be more addictive than heroin or cocaine. It is among the top 3 most addictive chemicals in the world.
carbon monoxide: found in car exhaust	nitrobenzene: used to make explosives, dyes and pesticides (to kill insects)
chromium: metal found in stainless steel	phenols: used to make plastics and disinfectants
DDT: used to kill insects	toluene: used as a fuel additive to make paint, adhesives, ink and paint thinners
ethanol: used as a fuel, and used in alcohol, perfumes or deodorants	vinyl chloride: used to make PVC plastic and vinyl pipes, wire coatings and packaging

(over)

General Information

Chemicals added by tobacco companies:

- **menthol:** cools and numbs the throat to make breathing easier while smoking
- **bronchodilators:** expands the lung airways, making it easier for tobacco smoke to pass into the lungs
- **levulinic acid:** reduces harshness of the smoke
- **flavorings:** makes tobacco taste more like candy
- **acetaldehyde:** added sugars makes tobacco more addictive.

Some toxic chemicals are found naturally in the tobacco plant.

Additional toxic chemicals are used to preserve the tobacco, and others are added by tobacco companies to make tobacco easier to use and more addictive. These are more reasons why tobacco is so hard to stop using.