



Tobacco Product: Brand X Cigarette

All tobacco products contain chemicals.

The purpose of this list is to provide information about the chemicals in this tobacco product that researchers have linked to health problems. Research is on going to find out which chemicals in tobacco and tobacco smoke cause harm.

There may be other health problems and chemicals that have not been discovered yet.

Tobacco companies test their cigarettes for these chemicals and report the amounts to the FDA.

Please note: There is no safe tobacco product. Based on what we currently know, you can not tell your chance of developing a health problem by the number of chemicals or the amount of a chemical in a tobacco product.



| Amount Per Gram | Amount Per Cigarette | CHEMICAL | | | | | |
|-----------------|----------------------|--|---|---|---|---|---|
| | 770-864 µg | Acetaldehyde | ■ | ■ | | | ■ |
| ◆ | 60-240 µg | Acrolein | | ■ | ■ | | |
| | 3-15 µg | Acrylonitrile | ■ | ■ | | | |
| | ND | 4-Aminobiphenyl | ■ | | | | |
| | 3-4 ng | 1-Aminonaphthalene | ■ | | | | |
| | ND | 2-Aminonaphthalene | ■ | | | | |
| 170-370 mg | 10-130 µg | Ammonia | | ■ | | | |
| 40-120 ng | ◆ | Arsenic | ■ | | ■ | ■ | |
| ◆ | 12-50 µg | Benzene | ■ | | ■ | ■ | |
| ◆ | 8.5-17.6 ng | Benzo[a]pyrene | ■ | | | | |
| | ◆ | 1,3-Butadiene | ■ | ■ | | ■ | |
| 41-62 ng | ◆ | Cadmium | ■ | ■ | | ■ | |
| | 14-23 mg | Carbon monoxide | | | | ■ | |
| ◆ | 10-20 µg | Crotonaldehyde | ■ | | | | |
| ◆ | 10.3-25 µg | Formaldehyde | ■ | ■ | | | |
| | 450-1000 µg | Isoprene | ■ | | | | |
| 0.1-1.6 µg | 110-133 ng | 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) | ■ | | | | |
| 11.3-26.7 mg | 0.1-3.0 mg | Nicotine | | | | ■ | ■ |
| 0.9-6.9 µg | 154-196 ng | N-Nitrosornicotine (NNN) | ■ | | | | |
| ◆ | ND | Toluene | | ■ | | ■ | |

The information is not currently available on the following chemicals.

| Amount Per Gram | Amount Per Cigarette | CHEMICAL | | | | | |
|-----------------|----------------------|--|---|---|---|---|---|
| | ◆ | Acetamide | ■ | | | | |
| ◆ | ◆ | Acetone | | ■ | | | |
| | ◆ | Acrylamide | ■ | | | | |
| | | Aflatoxin B1 | ■ | | | | |
| ◆ | ◆ | Anabasine | | | | | ■ |
| ◆ | ◆ | o-Anisidine | ■ | | | | |
| | ◆ | A-α-C (2-Amino-9H-pyrido[2,3-b]indole) | ■ | | | | |
| ◆ | ◆ | Benzo[a]anthracene | ■ | | ■ | | |
| | ◆ | Benzo[j]aceanthrylene | ■ | | | | |
| ◆ | ◆ | Benzo[b]fluoranthene | ■ | | ■ | | |
| | ◆ | Benzo[k]fluoranthene | ■ | | ■ | | |
| | ◆ | Benzo[b]furan | ■ | | | | |
| | ◆ | Benzo[c]phenanthrene | ■ | | | | |
| ◆ | ◆ | Beryllium | ■ | | | | |
| ◆ | ◆ | Caffeic acid | ■ | | | | |
| ◆ | ◆ | Catechol | ■ | | | | |
| | ◆ | Chlorinated dioxins/furans | ■ | | | ■ | |
| ◆ | ◆ | Chromium | ■ | ■ | | ■ | |
| ◆ | ◆ | Chrysene | ■ | | ■ | | |
| ◆ | ◆ | Cobalt | ■ | | ■ | | |
| ◆ | | Coumarin (banned in food) | | | | | |

A machine is used to test for these chemicals. The amount of chemical that gets into the body may be higher or lower depending on how a person uses the tobacco product. Companies may use different tests to measure these chemicals. Results may vary.

KEY

Chemicals have been linked to:

- Cancer
- Lung Disease
- Heart and Blood Vessel Problems
- Reproductive Problems
- Addiction

ND Not Detected

◆ The information is not currently available



Where do these chemicals come from?

Many of these chemicals come from the **tobacco leaf** and the **smoke**. The rest come from the filter, glue, ink, paper and additives.

mg= milligram
µg = microgram
ng = nanogram
pg= picogram



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| Amount Per Gram | Amount Per Cigarette | CHEMICAL | | | | | |
|-----------------|----------------------|--|---|---|---|---|---|
| ◆ | ◆ | Cresols (o-, m-, and p-cresol) | ■ | ■ | | | |
| | ◆ | Cyclopenta[c,d]pyrene | ■ | | | | |
| | ◆ | Dibenz[a,h]anthracene | ■ | | | | |
| | ◆ | Dibenzo[a,e]pyrene | ■ | | | | |
| | ◆ | Dibenzo[a,h]pyrene | ■ | | | | |
| | ◆ | Dibenzo[a,i]pyrene | ■ | | | | |
| | ◆ | Dibenzo[a,l]pyrene | ■ | | | | |
| ◆ | ◆ | 2,6-Dimethylaniline | ■ | | | | |
| ◆ | ◆ | Ethyl carbamate (urethane) | ■ | | | ■ | |
| ◆ | ◆ | Ethylbenzene | ■ | | | | |
| | ◆ | Ethylene oxide | ■ | ■ | | ■ | |
| | ◆ | Furan | ■ | | | | |
| | ◆ | Glu-P-1 (2-Amino-6-methyldipyrdo[1,2-a:3'2'-d]imidazole) | ■ | | | | |
| | ◆ | Glu-P-2 (2-Aminodipyrdo[1,2-a:3'2'-d]imidazole) | ■ | | | | |
| ◆ | ◆ | Hydrazine | ■ | ■ | | | |
| ◆ | ◆ | Hydrogen cyanide | | ■ | ■ | | |
| | ◆ | Indeno[1,2,3-cd]pyrene | ■ | | | | |
| | ◆ | IQ (2-Amino-3-methylimidazo[4,5-f]quinoline) | ■ | | | | |
| ◆ | ◆ | Lead | ■ | | ■ | ■ | |
| | ◆ | MeA-α-C (2-Amino-3-methyl-9H-pyrdo[2,3-b]indole) | ■ | | | | |
| ◆ | ◆ | Mercury | ■ | | | ■ | |
| ◆ | ◆ | Methyl ethyl ketone | | ■ | | | |
| | ◆ | 5-Methylchrysene | ■ | | | | |
| ◆ | ◆ | Naphthalene | ■ | ■ | | | |
| ◆ | ◆ | Nickel | ■ | ■ | | | |
| ◆ | ◆ | Nitrobenzene | ■ | ■ | | ■ | |
| | ◆ | Nitromethane | ■ | | | | |
| | ◆ | 2-Nitropropane | ■ | | | | |
| ◆ | ◆ | N-Nitrosodiethanolamine (NDELA) | ■ | | | | |
| ◆ | ◆ | N-Nitrosodiethylamine (NDEA) | ■ | | | | |
| ◆ | ◆ | N-Nitrosodimethylamine (NDMA) | ■ | | | | |
| ◆ | ◆ | N-Nitrosomethylethylamine | ■ | | | | |
| ◆ | ◆ | N-Nitrosomorpholine (NMOR) | ■ | | | | |
| ◆ | ◆ | N-Nitrosopiperidine (NPIP) | ■ | | | | |
| ◆ | ◆ | N-Nitrosopyrrolidine (NPYR) | ■ | | | | |
| ◆ | ◆ | N-Nitrososarcosine (NSAR) | ■ | | | | |
| ◆ | ◆ | Nornicotine | | | | | ■ |
| ◆ | ◆ | Phenol | | ■ | ■ | | |
| | ◆ | PhIP (2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine) | ■ | | | | |
| ◆ | ◆ | Polonium-210 | ■ | | | | |
| ◆ | ◆ | Propionaldehyde | | ■ | ■ | | |
| ◆ | ◆ | Propylene oxide | ■ | ■ | | | |
| ◆ | ◆ | Quinoline | ■ | | | | |
| ◆ | ◆ | Selenium | | ■ | | | |
| ◆ | ◆ | Styrene | ■ | | | | |
| ◆ | ◆ | 2-Toluidine | ■ | | | | |
| | ◆ | Trp-P-1 (3-Amino-1,4-dimethyl-5H-pyrdo[4,3-b]indole) | ■ | | | | |
| | ◆ | Trp-P-2 (1-Methyl-3-amino-5H-pyrdo[4,3-b]indole) | ■ | | | | |
| ◆ | ◆ | Uranium-235 | ■ | ■ | | | |
| ◆ | ◆ | Uranium-238 | ■ | ■ | | | |
| | ◆ | Vinyl acetate | ■ | ■ | | | |
| ◆ | ◆ | Vinyl chloride | ■ | | | | |

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