

HVSSSC

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FACT SHEET

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CHEMICALS IN TOBACCO PRODUCTS

A lit cigarette burns at 1000°F, converting 300 compounds in tobacco to as many as 5,000 chemicals that are sucked into the lungs. Here is a list of *some* of them.

- Acetaldehyde (irritant)
- Acetic Acid (vinegar)
- Acetone (poisonous solvent used for cleaning; nail polish remover)
- Acrolein (in chemical weapons)
- 4 –Aminobiphenyl*(bladder tumors)
- Ammonia (poisonous gas, cleaning agent)
- Anatabine Aniline**(dye)
- Arsenic (rat poison; dye making)
- Benzene (solvent—extremely toxic)
- Benz (alpha) anthracene***
- Benzo (alpha) pyrene*** (cancer-causing agent);
- Benzoic acid (anti-fungal agent, eye irritant)
- 1, 3 Butadiene** (skin irritant, narcotic)
- Butane (cigarette lighter fluid)
- Butyrolactone***
- Cadmium** (used in plating, batteries)
- Ethanol (alcohol)
- Formaldehyde** (preservative—embalming of animal tissue)
- Carbon Dioxide (carbonated drinks)
- Carbon Monoxide (auto exhaust, poisonous)
- Carbonyl Sulfide
- Catechol (antiseptic)
- Cholesterol (blockage of arteries)
- Cynaide (lethal gas used for capital punishment)
- DDT/Dieldrin (insecticides)
- Dibenzofurans Formic Acid (like an ant bite—causes stinging pain)
- Diemthylamine (used in vulcanizing rubber)
- Glycolic Acid (used in processing textiles and leather)
- Harman
- Hexamine (barbeque lighter)
- Hydrazine** (rocket fuel)
- Hydrogen Cyanide (in chemical weapons)
- Hydrogen Cyanide (gas chamber poison)
- Hydroquinone (photo developer)
- Lactic Acid (causes muscles to hurt)
- Lead (nerve poison)
- Methane (swamp gas)
- Methanol (rocket fuel)
- Methyl chloride (refrigerant)
- Methylamine (used in tanning leather)
- 3—Methylpyridine
- Napthaline (mothballs)
- 2—Naphthylamine (causes tumors of bladder)
- N—Nitrodiethanolamine**
- N—Nitrosamines (cancer-causing agents)
- N—Nitrosodiethylamine**
- N—Nitrosodiemethylamine** (causes liver damage)
- N—Nitrosornicotine***
- N—Nitrosopyrrolidine**
- Nickel* (used in alloys, causes vomiting and diarrhea)
- Nicotine (insecticide that causes extreme nausea, vomiting, diarrhea, mental confusion, convulsions; 40 mg orally is fatal to humans)
- Nitrobenzene (gasoline additive)
- Nitrogen oxides (component of smog)
- Nitrous Oxide Phenols (disinfectant)
- NNK
- Particulate matter (some***)
- PCDDs and PCDFs (dioxins-defoliant-Agent Orange—causes cancer, birth defects, and miscarriages)
- Phenol (germicide)
- Polonium-210 (nuclear waste, can cause lung cancer)
- Pyridine (chemical solvent—causes CNS depression)
- Quinoline (anatomical specimen preservative)
- Stearic Acid (candle wax)
- Succinic Acid (plant growth retardant)
- Toluene (poisonous industrial solvent)
- 2-Toluidine
- Uranium 235 (used in nuclear weapons)
- Vinyl Chloride (makes pvc)
- 3-Vinylpyridine
- Zinc (inhaling causes weakness/nausea)

SPIT TOBACCO: Some of the chemicals found. There are a total of 28 that cause cancer.

- Acetaldehyde (irritant)
- Benzo (aopha) pyrene** (cancer-causing agent)
- Cadmium** (used in plating, batteries)
- Formaldehyde** (preservative-embalming)
- Lead (nerve poison)
- Nicotine (insecticide that causes extreme nausea, vomiting, diarrhea, mental confusion, convulsions; 40 mg orally is fatal for humans)
- N-Nitrosamines (cancer-causing agents)
- Polonium-210 (nuclear waster, can cause lung cancer)
- Uranium 235 (used in nuclear weapons)

***Known Human Carcinogen**

**** Probable Human Carcinogen**

*****Animal Carcinogen**

Chemicals from Table 3-1 of Mainstream Cigarette Smoke, 1992 EPA Report Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders. Chemical uses and hazards fro Lezlie Dahlberg, Chemistry Instructor, LaHabra High School, LaHabra, CA.