

Electronic Cigarette Research: FDA Report

FDA Report on the Electronic Cigarette

Summary by [E Cigarette Direct](#)

Note: This is an analysis of the report commissioned by the FDA, currently the subject of a law suit by electronic cigarette suppliers, not the controversial FDA announcement itself.

Testing

A total of 18 Cartridges were tested in two ways. Electronic Cigarettes were simulated for use with temperatures ranging from 40-65 degrees centigrade and also at 280 degrees centigrade.

Conclusion of the Report

"Nicotine is present in both products. The Smoking Everywhere Electronic Cigarette cartridges listed as containing no nicotine in some cases had very low amounts of nicotine present. Tobacco specific nitrosamines and tobacco specific impurities were detected in both products **at very low levels**. DEG was identified in one cartridge, Smoking Everywhere 555 High." View report.

Harmful Ingredients Found (excluding Nicotine)

Diethylene Glycol: Trace elements of Diethylene Glycol was found in one cartidge. Diethylene Glycol is harmful to humans.

Tobacco-Specific Nitrosamines: Trace amounts of nitrosamines were found. Levels were consistent with those found in nicotine replacement aids. According to Professor Brad Rodu, there is abundant evidence that miniscule levels of tobacco specific nitrosamines do not cause cancer in users of smokeless tobacco (Source: [Tobacco Truth](#)).

Comparison to Regular Cigarettes

Ingredients found in regular cigarettes:

Tobacco Specific Nitrosamines: Proffessor Michael Siegel estimates that regular cigarettes contain 300-1400 times the amount of nitrosamines found in electronic cigarettes. (See [Comparison of Regular and Electronic Cigarettes](#).)

Full List of carcininogens found in regular cigarettes: Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(j)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)anthracene,, Dibenzo(a,l)pyrene, Dibenzo(a,e)pyrene, Indeno(1,2,3-cd)pyrene, Quinolineb, Dibenz(a,j)acridine, Benzo(b)furan, Furan, N-Nitrosodimethylamine, N - Nitrosoethylmethylamine, N -Nitrosodiethylamine, N -Nitroso-di-n-butylamine, N - Nitrosopyrrolidine N -Nitrosopiperidine N -Nitrosodiethanolamine, N -Nitrosornnicotine, 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone, 2-Toluidine 2,6-Dimethylaniline, 2-Naphthylamine, 4-Aminobiphenyl, AaC, PhIP, Formaldehyde, Acetaldehyde, 1,3-Butadiene, Isoprene, Benzene, Styrene, Acetamide, Acrylamide,, Acrylonitrile, Vinyl chloride, DDT, DDE, Catechol, Caffeic acid, 1,1-Dimethylhydrazine, 2-Nitropropane, Nitrobenzene, Ethyl carbamate, Ethylene oxide, Propylene oxide, Methyleugenol, Hydrazine, Arsenic, Nickel, Chromium, Cadmium, Lead, Polonium-210

Chemicals: Regular cigarettes contain approximately 10,000 chemicals, including known toxins, which electronic cigarettes do not.

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Criticisms of the Testing

1. Method of Testing: [Tim Worstal of the Examiner](#) criticised the heating of the ingredients to 280 degrees centigrade, arguing that they should be tested as used (i.e. at 40-60 degrees centigrade.)
2. Comparison to pharmaceutical products: Nicotine Inhalers were used as a comparison product. However, the FDA did not test these products and have never tested these products for tobacco specific nitrates, despite a [2006 study](#) showing that they do indeed contain TNSA's. (Source: Professor Brad Radu).
3. Testing for carcinogens: Professor Brad Radu also points out that this is the first time the FDA have ever tested a product for carcinogens, despite regulating Nicotine Cessation Aids.

Bibilography

[Summary of the FDA Report](#)

[FDA Smokescreen on Electronic Cigarettes](#) (Washington Times)

[Comparison of Carcinogen Levels between Electronic Cigarettes and Real Cigarettes](#)

[The FDA and Electronic Cigarettes](#): The Examiner

[E Cig: FDA Announcement on the Electronic Cigarette](#)

[List of Identified, Known Carcinogens in Electronic Cigarettes vs. Conventional Cigarettes](#)

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