Technical features of Ploom Tech, JTI’s novel tobacco vapor device

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What is Tobacco Vapor?

Inhalable tobacco products in which the tobacco is not combusted during intended use

Tobacco Vapor Products (TVPs)

Non-combusted tobacco products for inhalation (NCTPIs)
Tobacco Vapor Category: existing technologies

- Direct heating
- Indirect heating (Air)
- Indirect heating (Liquid)
- Ambient (no heating)
Heats or Burns or Combusts?..
Ploom Tech hybrid device

TOBACCO VAPOR
- No smoke, no smoke smell, no ash

TECH-CAP
- Specially blended granulated tobacco

CARTRIDGE
- Contains non-nicotine containing liquid to create vapor

BATTERY

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How Ploom Tech works

Aerosol with tobacco flavour/nicotine from tobacco

Aerosol picks up tobacco flavour and nicotine from tobacco particles

Plain Aerosol

Heater

Liquid

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Scientific data: *Vapor chemistry*

Approximately **99% reduction** in levels of measured constituents compared to cigarette smoke.

Source:

**Chemical and in vitro toxicological analysis of a vapor from a novel tobacco vapor device and capsule**

Takahashi, Y; Kanemaru, Y; Fukushima, T; Eguchi K and Miller-Holt, J

*Presented at EuroTox 2016*
Scientific data: *In vitro* toxicology

**Source:**
Chemical and in vitro toxicological analysis of a vapor from a novel tobacco vapor device and capsule
Takahashi, Y; Kanemaru, Y; Fukushima, T; Eguchi K and Miller-Holt, J
*Presented at EuroTox 2016*
Scientific data:
*In vitro cellular responses (human bronchial epithelial cells)*

Source: *Comparative effects of cigarette smoke and novel tobacco product vapor on in vitro cellular responses in human bronchial epithelial cells*  
Munakata, S; Ishimori, K; Takanami, Y; Ishikawa, S; Ito, S  
*Presented at Society of Toxicology Annual Meeting 2017*

*Strong potential to be a reduced-risk product*
Evidence of correlation between tobacco temperature and biological activity

Lower cell toxicity than directly-heated tobacco vapor (HnB product) or cigarette smoke
Evidence of correlation between tobacco temperature and vapor chemistry

Stated reductions in measured harmful and potentially harmful vapor constituents (HPHCs) compared to cigarette smoke

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Summary

**Ploom Tech:**

- A tobacco vapor product
- Hybrid technology
- Indirectly heats tobacco to 30 °C
- No burning of tobacco, no smoke, smoke smell or ash
- 99% reduction in measured HPHCs in vapor compared to smoke
- Significantly reduced in vitro biological responses compared to smoke

➢ **Has strong potential as a reduced-risk product**
Thank you!

Any questions?
Enterprising
Open
Challenging