

Accepted Manuscript

Evaluation of the Tobacco Heating System 2.2. Part 2: Chemical composition, genotoxicity, cytotoxicity, and physical properties of the aerosol

Jean-Pierre Schaller, Daniela Keller, Laurent Poget, Pascal Pratte, Etienne Kaelin, Damian McHugh, Gianluca Cudazzo, Daniel Smart, Anthony R. Tricker, Lydia Gautier, Michel Yerly, Roger Reis Pires, Soazig Le Bouhellec, David Ghosh, Iris Hofer, Eva Garcia, Patrick Vanscheeuwijck, Serge Maeder



PII: S0273-2300(16)30290-2

DOI: [10.1016/j.yrtph.2016.10.001](https://doi.org/10.1016/j.yrtph.2016.10.001)

Reference: YRTPH 3693

To appear in: *Regulatory Toxicology and Pharmacology*

Received Date: 4 July 2016

Revised Date: 4 October 2016

Accepted Date: 5 October 2016

Please cite this article as: Schaller, J.-P., Keller, D., Poget, L., Pratte, P., Kaelin, E., McHugh, D., Cudazzo, G., Smart, D., Tricker, A.R., Gautier, L., Yerly, M., Pires, R.R., Le Bouhellec, S., Ghosh, D., Hofer, I., Garcia, E., Vanscheeuwijck, P., Maeder, S., Evaluation of the Tobacco Heating System 2.2. Part 2: Chemical composition, genotoxicity, cytotoxicity, and physical properties of the aerosol, *Regulatory Toxicology and Pharmacology* (2016), doi: 10.1016/j.yrtph.2016.10.001.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **Evaluation of the Tobacco Heating System 2.2. Part 2: Chemical**
2 **composition, genotoxicity, cytotoxicity, and physical properties of the**
3 **aerosol**

4 Jean-Pierre Schaller^{1,2}, Daniela Keller¹, Laurent Poget¹, Pascal Pratte¹, Etienne Kaelin¹, Damian
5 McHugh¹, Gianluca Cudazzo¹, Daniel Smart¹, Anthony R. Tricker¹, Lydia Gautier¹, Michel Yerly¹,
6 Roger Reis Pires¹, Soazig Le Bouhellec¹, David Ghosh¹, Iris Hofer¹, Eva Garcia¹, Patrick
7 Vanscheeuwijck¹, Serge Maeder¹

8 ¹Philip Morris International R&D, Philip Morris Products S.A., Quai Jeanrenaud 5, 2000
9 Neuchâtel, Switzerland (part of Philip Morris International group of companies)

10 ²Corresponding author, e-mail: jean-pierre.schaller@pmi.com; Tel.: +41 (58) 242 26 82

11
12 Keywords: Tobacco heating system, Heat-not-burn, THS2.2, Modified risk tobacco product,
13 Harmful and potentially harmful constituents, HPHC, Aerosol Chemistry, Mutagenicity,
14 Cytotoxicity.

15
16 **Highlights:**

- 17
- 18 • Mainstream aerosol characterization of the Tobacco Heating System 2.2 (THS2.2)
 - 19 • Comparison of the THS2.2 aerosol with the smoke of the 3R4F reference cigarette
 - 20 • The majority of the toxicant yields were reduced by more than 90% in the THS2.2
 - 21 • The THS2.2 *in vitro* genotoxic and cytotoxic potencies were reduced by about 90%
 - 22 • The particle sizes of THS2.2 aerosol and cigarette smoke were similar

23 Word counts: Abstract: 199, Text: 17855, References: 3048

Download English Version:

<https://daneshyari.com/en/article/5561337>

Download Persian Version:

<https://daneshyari.com/article/5561337>

[Daneshyari.com](https://daneshyari.com)