

Reference Material Data Sheet

1C2 Filtered Cigar (Little Cigar)

Data Sheet Number: 2022-1C2CTRP

Reference values generated on: 08/01/2022

Reference values are valid until: 08/01/2027

Superseded data sheet code: NA

Description of Material	Machine made filter cigar
Lot/Batch Number	1C2 Little Cigar
Matrix	Tobacco blend

Notes

- Reference values listed below reflect analysis results submitted during CORESTA studies (References below) satisfying Clause 5.15 of ISO Guide 34:2009 and statistically evaluated using Approach A in Clause 10.5 of ISO Guide 35:2017.
- The "Reference Uncertainty" listed herein are expanded uncertainties obtained by multiplying the combined standard uncertainty by a constant coverage factor of 3, i.e. $k = 3$.
- The reference values listed herein are reflective of chemical analysis done on a "as is" basis, i.e. the samples were not dried prior to analysis.
- Cigars were smoked using the CORESTA Recommended Method No. 64.
- The values will be updated by the valid until date or as needed.
- Due to the possibility of self-extinguishing, relighting the cigar may be necessary.

1C2 Reference Filtered Cigar Values and Uncertainties

Mainstream Smoke					
Parameter	Reference Value	Certified Uncertainty	Unit	Number of Accepted Data Points	Constant Coverage Factor
Total Particulate Matter (TPM)	22.01	7.78	mg/cigar	50	3
Tar (Nicotine-free dry particulate Matter (NFDPM))	19.45	7.02	mg/cigar	50	3
Carbon Monoxide (CO)	31.20	11.76	mg/cigar	50	3
Nicotine	1.13	1.20	mg/cigar	50	3
Puff Count	20.72	3.64	puffs/cigar	50	3
Water	1.40	1.62	mg/cigar	50	3
Weight	1337.9	21.0	mg/cigar	50	3

Homogenized Cigar					
Parameter	Reference Value	Certified Uncertainty	Unit	Number of Accepted Data Points	Constant Coverage Factor
Ammonia	2675	768	µg/g	36	3
Arsenic	139	62	ng/g	24	3
Cadmium	1168	549	ng/g	24	3
Nicotine	11.20	1.57	mg/g	33	3
NNK	1306	366	ng/g	36	3
NNN	3358	925	ng/g	36	3
NAT	1594	292	ng/g	36	3
NAB	133	37	ng/g	36	3
Moisture Content	13.74	2.32	%	33	3
pH	6.23	0.36	pH units	39	3
Water Activity	0.63	0.08	a _w	30	3

CERTIFIED VALUES AND UNCERTAINTIES:

The Certified Values and Uncertainties for the mainstream smoke parameters contained herein are reflective only of data obtained from a Linear Smoking machine.

DATA AQUISITION:

Data used in calculations for constituents were reported in multiple studies listed below.

Mainstream smoke – CORESTA Technical Report Cigar Smoke Analysis 14th Collaborative Study 2019-2020 (April 2021)

Homogenized cigar – CORESTA Technical Report University of Kentucky Cigar Reference Products 2021 Analysis (September 2021)

INTENDED USE: This product may be used for analytical method development, assigning values to materials (when applicable), and, equipment calibration to any applicable extent.

INSTRUCTIONS FOR CORRECT USE: This reference material may be stored in sealed containers or bags at -20°C until testing. Prior to analysis, the reference material should be unopened and transferred to a refrigerator for a minimum of 24 hours or until they are completely thawed, and then moved to room temperature for at least 2 hours until it reached temperature equilibrium. Once the reference materials are equilibrated to room temperature, the reference materials may be stored at 4°C for up to one week, if they will not be analyzed immediately. Any reference materials found to have damaged package should be discarded.

HAZARD INFORMATION: N/A

HOMOGENEITY: Homogeneity of this material is reflected in the “Certified Uncertainties” disclosed herein.

APPROVING PERSONNEL: This material is approved by **Huihua Ji, C. Ruth McNees** and **Ling Yuan** on behalf of CTRP