

Maximum Tobacco-Specific Nitrosamine (Carcinogen) Levels in Various Cigarettes and Nicotine-Delivery Products

(ng/g, except for nicotine gum and patch which are ng/patch or ng/gum piece)

Product	Tobacco specific nitrosamines				
	NNN	NNK	NAT	NAB	Total
Electronic cigarettes (2)	3.87	1.46	2.16	0.693	8
Nicotine gum (1)	2.00	Not detected	Not detected	Not detected	2
Nicotine patch (1)	Not detected	8.00	Not detected	Not detected	8
Swedish snus (3)					2,400
Winston US (1)	2200	580	560	25	3,365
Newport US (1)	1100	830	1900	55	3,885
Marlboro NZ (3)					6,600
Camel (1)	3100	1400	2800	150	7,450
Skoal (1)	4500	470	4100	220	9,290
Marlboro US (1)	4300	1800	4900	190	11,190

Sources:

1. Stepanov I, Jensen J, Hatsukami D, Hecht SS. Tobacco-specific nitrosamines in new tobacco products. *Nicotine & Tobacco Research* 2006; 8:309-313. (<http://www.starscientific.com/404/stepanov%20tsna%20in.pdf>)
2. Laugesen M. *Safety Report on the Ruyan e-cigarette Cartridge and Inhaled Aerosol*. Christchurch, New Zealand: Health New Zealand Ltd, 2008. (<http://www.healthnz.co.nz/RuyanCartridgeReport30-Oct-08.pdf>)
3. Wahlberg I. *Tobacco-specific Nitrosamines in Unburnt New Zealand Tobaccos. Report to Health New Zealand Ltd*. Swedish Match, 2004. (<http://www.smokeless.org.nz/snuffregulations.htm>)