

C A N A D A  
PROVINCE OF QUÉBEC  
DISTRICT OF MONTREAL

(Class Action)  
**SUPERIOR COURT**

No: 500-06-001018-197

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**Tracey Arial, Claire O'Brien, Erika and Zoe Patton,  
Alex Tasciyan, Mathew Nucciaroni and Vito DeCicco**

Plaintiffs/Petitioners

vs.

**Apple Canada Inc. and Samsung Electronics Canada**

Respondents

Plaintiffs' Notes and Authorities as concerns Samsung New Application to Adduce Evidence:

TO THE HONORABLE MR. JUSTICE PIERRE C. GAGNON, PLAINTIFFS SAY:

Overview:

1. Plaintiffs allege that Defendants' cellphone SAR levels are falsely advertised, improperly tested and fail to warn of unhealthy levels of radiation.
2. These class claims are summarized in three (3) syllogisms:
  - i. Cellphone models, including certain Defendants' models, when tested using the advertised separation distance emit EMF/SAR in excess of the FCC limit of 1,6 W/kg. This contradicts what is claimed and constitutes false advertising. Defendants are well aware of this fact.
  - ii. Cellphone models, including all tested Defendants' models, when tested as used (i.e. separation distance of 2 mm or less) exceed the FCC limit of 1,6 W/kg by up to five (5) times FCC 1.

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<sup>1</sup> "Microwave Emissions from Cellphones Exceed Safety Limits in Europe and the U.S. When Touching the Body", Om P. Ghandi, IEEE. Access, April 18, 2019

- iii. Defendants' actions and omissions described above cause serious health damage to humans and the environment. These constitute a breach of fundamental rights, the *Charters* and justify the awarding of punitive damages. As this concerns the *quantum* of damages due the class, it is a matter for the Merits.

#### Facts Regarding Samsung Testing of SAR

3. SAR values for Defendants' Samsung mobile phones are falsely advertised and fail to adequately warn consumers of health risks. The Innovation, Science and Economic Development (ISED) Canada website on Radiofrequency Energy and Safety (<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html>) explains that "all wireless devices must comply with established SAR limits" and further "ISED requires cell phone manufacturers and other wireless devices to provide information to users on the minimum compliance distance to maintain between the cell phone or wireless product and the body" in order to meet the SAR requirement. Thus, SAR compliance must be understood in the context of a compliance or separation distance between the mobile phone and the body.
4. The ISED website further advises consumers "Information regarding SAR values and compliance distance for your wireless device can be found in the following locations:
  - a. the user manual
  - b. device settings
  - c. on the manufacturer's website (or by directly contacting the manufacturer)
  - d. on ISED's website using the Radio Equipment List search tool"
5. Defendants Samsung argue that **Exhibit S – 20** "specifically explains that its RF emission benchmarks, in particular the specific absorption rate (SAR), are cautious and sit well below the threshold of danger";
6. Applicants contest the filing of Samsung **Exhibit S-20** ISED's "Radiofrequency, Energy and Safety", in part because it purports to interpret "Safety Code 6" which is the domain

of Health Canada, and furthermore as it completely misrepresents the health implications of Safety Code 6, about which ISED has no authority, as well, **Exhibit S-20** completely misrepresents the “danger threshold”;

7. At page 4, line 7 “What is non-ionizing energy?” This definition is imprecise as if one microwaves an object it does break down chemical bonds within tissues.
8. At page 6 the last 5 lines are incomplete as indicated in Gregorio **Affidavit** paras. 20 to 30 describe in detail the relevance of non-ionizing radiation as concerns human health. The same is indicated by Dr. Havas’ Report **Exhibit P-3F** at para. 67. **Exhibit S-20** is incomplete and misleading as it does not consider non-ionizing radiation. It also misleads by omission in the choice of examples of health effects of non-ionizing radiation;
9. Page 7 first sentence of para. 2 “Canada’s approach to RF exposure is among the most stringent in the world” is incorrect. More stringent jurisdictions include Russia, China, Switzerland, France, Italy and Israel as indicated in Dr. Magda Havas Report **Exhibit P-3F** at paras. 30-32. This constitutes disguised expertise invoked prematurely.
10. Page 7 lines 6-9 are misleading as Canada does not monitor the research and scientific literature on health effects of RF exposure. In 2016 when the Code was updated no list of literature consulted was provided, crucial literature was not referred to, nor was literature that was submitted commented on as indicated by Dr. Magda Havas Report **Exhibit P-3F**. This paragraph also purports to be Expertise and is therefore not relevant for Authorization as Expertise or disguised Expertise alleged early;
11. “Health Canada’s Role” page 7 para. 3 line 3 “These limits are set well below the levels of all known potential adverse health effects”. The emphasis is on the word “known” is arbitrary and misleading as only thermal effects are being considered, as indicated at

Gregorio **Affidavit** at paras. 23-28 and Dr. Magda Havas **Exhibit P-3F** at paras. 28-29. In particular, cancer, reproduction, and neurological effects are not considered as indicated in Dr. Havas Report at paras. 34-71;

12. Page 8 lines 6-11 are false (and purport to be expertise) as ISED tests and certifies wireless devices but does *not* provide any safeguard against overexposure, which is the basis for the present proceedings;

13. Page 8 lines 12-13 are false as wireless devices do not have to meet exposure requirements “at all times”. Defendants say in their user manuals that “under certain circumstances ... [certain use cases] may change the RF performance of the device including its compliance with RF exposure guidelines”. See Gregorio **Affidavit** para 63. Samsung **Exhibit S-7** page 3 lines 8-12 which states: “For body-worn operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the mobile device a minimum of 1.5 cm. from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.” Samsung **Exhibit S-8** at page 20 states “SAR values for body-worn devices are measured when used with an accessory that contains no metal and that positions the device a minimum of **x.x cm** from the body.” (Emphasis ours).

14. “What amount of RF exposure is considered safe?”

This is addressed at page 9 lines 3-6 and description of figure (excluded from **Exhibit S-20**), p.16 lines 11-12, and page 17 lines 3-6. The referenced “50-fold limit” from Health Canada’s Safety Code 6 (**Exhibit P-26** p. 3 para 4-5) applies explicitly to “basic restrictions on whole-body average SAR” employing a “threshold effect” SAR level for thermal harm of ~4 W/kg as the “scientific basis for the basic restrictions on whole-body average SAR”

of 0.08 W/kg. There is no discussion by Health Canada in **Exhibit P-26** regarding any safety factors relative to localized human tissue exposure. Rather, “where thermoregulation can efficiently dissipate heat”, the corresponding basic restriction for “peak spatially-averaged SAR for the head, neck and trunk” is set at a much higher level of 1.6 W/kg. As cell phone compliance testing only measures localized exposure (Gregorio **Affidavit** paras. 47-48), the implicit 50-fold safety factor is not applicable and highly misleading;

15. Page 14 para. 1, line 1 “Phantoms” do not properly simulate the properties of human body tissues. This is explained in detail in Dr. Havas’ Report at paras. 21-25 and in the Gregorio **Affidavit** at paras. 46-50. This document is therefore proposed to contradict Applicants’ Expertise and is not relevant at Authorization;

16. The claim made at page 15 lines 4 and 22, as well as at page 16 lines 11-12, that wireless devices are tested at “full power” is misleading. The testing may not be done at full power, as explained in the Gregorio **Affidavit** at paras. 59-61 which describe the likelihood of defeat devices being triggered during laboratory testing;

17. At page 16 para. 2 ISED claims that non-compliant use “does not compromise safety as the Canadian limits have a safety margin of at least 50-fold”. In that assertion ISED directly contradicts Health Canada’s Safety Code 6 definition of basic restriction (Exhibit P-26) page 13 line 1. Moreover, ISED is discussing safety, which is outside their jurisdiction and authority. The Gregorio **Affidavit** at paras. 36 and 37 indicate that the agency that has authority (Health Canada) established a limit (1.6 w/Kg) and another agency (ISED) says that exceeding that limit is safe. Using cell phones in a non-compliant way cannot be considered safe. “Can always be used directly against the ear” lines 13-15. The statement

is not true because holding cell phones in a different position may exceed the SAR limit, as indicated in **Exhibits P-3HB and P-3G**;

18. “Am I at risk if I place my phone directly in my pocket?” The last 2 lines do not answer the question and defer to the user manuals. Samsung manuals claim they test “body-worn devices” at 1.5 cm. distance. A cellphone in a pocket is closer to 2 mm and therefore inconsistent with ISED’s requirement to test at 5 mm. One cannot claim that outside of compliance, that the usage is safe. One cannot say that regardless of compliance distance it is safe. **Exhibit S-20** is irrelevant in this regard as ISED cannot opine on safety; only compliance;
19. At page 22 last 3 lines ISED claims there is no scientific basis for the claim cell phone radiation leads to cancer. This statement is extremely misleading in that it ignores the corpus of peer-reviewed research. Dr. Havas Report at paras. 28-29 and 34-71 provides detailed proof concerning 3 major types of health effect all of which occur at levels well below thermal effects regulated by Safety Code 6;
20. At Authorization Defendants should not be permitted to rely on “Safety Code” 6 as justifying emission levels as cellphones are used (Syllogism 2) *or* to claim there are no significant health risks from cellphone exposure to the public or the hypersensitive (children, pregnant women and immunosuppressed) (Syllogism 3). It is respectfully submitted that such matters are clearly for the Merits and Applicants would be entitled to file expertise on these issues;
21. As noted at paras. 28 and 29 of the Gregorio **Affidavit**, the EMF Scientists’ Appeal (**Exhibit P-13**) “call[s] for protection from non-ionizing electromagnetic field exposure based on numerous scientific publications showing “EMF affects living organisms at levels

well below most international and national guidelines ... Whereas the manufacture, testing and licensing of wireless communications devices worldwide (including in Canada) is predicated on regulations which assert that physical heating is the *only* mechanism of harm from microwave EM radiation, notwithstanding the body of published, peer-reviewed research stating the contrary”;

In the case of Samsung mobile phones, the user manuals do not provide SAR and separation distance. Defendant Samsung’s proposed **Exhibits S-7** through **S-10** do NOT list SAR values. Three of these user manuals (Galaxy J-3, S-8, and S-9) do list separation distances of 1.5 cm in the Health and Safety sections, while that for the Galaxy S-7 (**Exhibit S-8** at page 20) states instead: “SAR values for body-worn devices are measured when used with an accessory that contains no metal and that positions the device a minimum of **x.x cm** from the body.” (Emphasis ours). Proposed Representative Mathew Nucciaroni owns the model in Question, Samsung Galaxy 7.

22. The device settings on these handsets provide neither SAR values nor compliance distances. Rather, they redirect to the manufacturer’s (difficult to access) website.
23. The manufacturer’s website for each handset does provide SAR values, but specifies: “Body-worn SAR testing has been carried out at a **separation distance** of **1.5 cm**. To meet RF exposure guidelines during **body-worn operation**, the device should be positioned at least this distance away from the body.” (Emphasis ours). If your phone is in your pocket the phone may not be comply with Health Canada’s basic restriction. This statement directly contradicts the Galaxy S-7 User Manual. As indicated at paras. 40 and 41 of the Gregorio **Affidavit**, ISED defines a body worn device to include a device normally

operated or intended to be used while it is placed in the pocket of the garment and that “body-worn devices... shall be tested using a test separation distance of 5 mm or less”.

24. The last location ISED recommends for consumers to find SAR and Compliance Distance information is the ISED Radio Equipment List for their mobile phones. Defendant Samsung’s proposed Exhibits S-11 through S-14 reproduce the ISED Radio Equipment Lists for certain mobile phones (Galaxy J-3, S-7, S-8, and S-9, respectively). While the Lists for the Galaxy S-7 and S-8 **do not declare** a Compliance Distance, those for the Galaxy J-3 and S-9 declare a Compliance Distance of **0 mm** for Body RF Exposure. In each case, these lists contradict both the user manuals and the manufacturer’s website regarding SAR and compliance or separation distance. Taken individually and together, these four sources of health and safety information available to consumers are confusing, incomplete and mutually contradictory, and constitute false advertising and a failure to adequately warn consumers of health risks;

25. Defendants proffer “Safety Code” 6 as a defense justifying their measured cellphone emission levels (syllogism 1) and as a defense and disguised expert proof to claim the measured levels simulate how their cellphones are used (Syllogism 2). Samsung **Exhibit S-20** claims there are no significant health risks from cellphone exposure to the public even when “used in a non-compliant way” (page 16 line 9) (Syllogism 3). ISED’s claims concerning health are irrelevant as beyond the scope of their jurisdiction and expertise.

26. Proposed **Exhibit S-20** is peripheral to the issues at hand as it incorrectly interprets Health Canada’s Safety Code 6. In *Benjamin c. Crédit VW Canada inc.*, 2019 QCCS 2158 Madam Justice Lamarche held at para. 17, p. 6 that facts intended to contradict those alleged, are not relevant unless they go to the heart of the syllogism;



27. Samsung **Exhibits S-11-14** support Plaintiffs' syllogisms 1 and 2. Plaintiffs say that though these documents are unreliable, incomplete and do not represent proper testing results, these Exhibits either have no compliance distance or state a 0 mm compliance distance. Samsung Galaxy phones are tested at 15 mm. Defendant Samsung is testing its phones at either the wrong distance, or when testing do not indicate at all the distance tested, or misrepresent to Industry Canada (ISED) the safe-use distance known as compliance distance. When Samsung phones are tested or used at 5 mm., or a lesser separation distance, the SAR exposure is up to 5 times higher (**Exhibit P-3G**) as SAR increases by 30% per millimeter (Gregorio **Affidavit** para.41). As our case is about consumer protection and fraud, **Exhibit S-20** is not relevant for Authorization. **Exhibit S-20** is a misrepresentation of Safety Code 6 and is irrelevant to Applicants' syllogisms 1 and 2. ISED is reading things into Safety Code 6 that are not there. There is no 50-fold protection in any cell phone certification testing required by ISED. ISED only requires testing of cell phones for localized SAR emissions;

28. Only essential and indispensable proof is permitted to Defendants and only as concerns the syllogism(s). "Completing the factual context is not a ground" *Bouchard c. Bank of Montréal* 2019 QCCS 5661 paras. 42+43 (Carl Thibault JCS), *Lauzon c. Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 CanLii, Bisson, J. at paras. 38 page 13, and at para. 72, page 19 citing and applying *Asselin c. Desjardins* 2017 1673 (paras. 37-45) and *Primo Bedding Company c. Air Canada* 2019 QCCS 1671 Duprat, J., pp. 6-7 paras 13ff. Prudence is required. *Agostino* cited in *Desaunettes c. Réseau de Transport métropolitain (Exo)*, Gagnon J., 2019 QCCS 1894 para 94, p. 14. Defendants' proof must also be succinct and concise. *Lauzon c. Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 CanLii,

Bisson, J. at paras. 48 page 15. It is preferable that in addition to succinct and precise, where the proposed proof has potentially significant consequences, it becomes essential and indispensable, fitting the narrow corridor. *Lauzon c Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 CanLii, Bisson, J. para. 88 page 23;

29. Authorization since *Oratoire Saint-Joseph* is a filter. Only frivolous actions with no chance of success are denied. *Pilon c. Annex Bank of Canada* 2019 QCCS 3607 Hon. Pierre C. Gagnon at paras. 29-30 i.e. “manifestement mal fondée en fait ou en droit” *Oratoire Saint-Joseph* at paras. 22 and 56. The test is similar to a Motion to Dismiss under Art. 168 CCP (*Pilon* at paras 33ff). Should a Judge be presented contradictory facts, he or she is to assume, nonetheless, the facts as alleged for Authorization are true. *Lauzon c Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 CanLII, Bisson, J. at para. 38 p. 13.
30. Only neutral and objective proof is admissible. *Pilon c. Banque Annex of Canada* QCCS 4645, The Honorable Pierre C. Gagnon J. at page 13. **Exhibit S-20** is neither. Such neutrality and objectivity must be apparent on the document. Plaintiffs’ claim may not be tested or contradicted via expertise, apparent or disguised, *Lauzon c Municipalite (MRC) de Deux Montagnes*, the Honorable Mr. Justice Bisson, paras 97-8.
31. Other elements of defense, disguised expertise and expertise alleged prematurely (*Lauzon c Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 CanLii, para. 87, and unreliable biased pseudo-scientific claims, alleged prematurely are inadmissible. Contestation of health effects is a matter for the merits. The existence and extent of SAR health effects should only be adjudicated when this Court may examine the issue in detail, and with the benefit of Expert evidence, *Lauzon c Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650, Bisson, J., paras. 129-130 (and at para. 61). The proposed Exhibit does

not assist with or inform as concerns Plaintiffs' syllogisms 1 and 2 and as the exhaustive factual claim is not before the Court, cause is not now to be considered, *Lauzon c Municipalite (MRC) de Deux Montagnes*, 2019 QCCS 4650 para. 61-62, p. 17;

32. Samsung fails to provide *specific* arguments as to why **Exhibit S-20** is relevant at Authorization, nor how all or any of it relates to Plaintiffs' Syllogisms 1 and 2. Such specificity is absolutely required. *Primo Bedding Company c. Air Canada* 2019 QCCS 1671, Hon. Mr. Justice Duprat, p. 8 para. 17, re discovery.

Respectfully submitted this 8<sup>th</sup> day of December 2021

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