

Senate Community Affairs Committee

ANSWERS TO ESTIMATES QUESTIONS ON NOTICE

HEALTH PORTFOLIO

Supplementary Budget Estimates 2014 - 2015, 22 October 2014

Ref No: SQ14-001350

OUTCOME: 1 – Population Health

Topic: Conventionally-sized Materials vs. Nano-sized

Type of Question: Written Question on Notice

Senator: Siewert, Rachel

Question:

In responding to question SQ14-000567, you note that amorphous silica is authorised for use in foods in Australia. You note that it has “been used safely in food for many years and is not considered to be the product of a new or novel use of nanotechnology.”

In SQ14-000571, SQ14-000577 and SQ14-000579 you make similar statements regarding titanium dioxide. I have several questions.

- a) Is it the position of FSANZ that it will not require safety testing of nanomaterials if those materials at conventional size have previously been deemed safe for human consumption? (i.e. it is not the “product of a new or novel use of nanotechnology”)
- b) Would you agree that the behaviour of conventionally sized materials is not necessarily useful in understanding the behaviour, toxicity or reactivity of the same material at a nano scale? And that this suggests that until otherwise demonstrated all nanomaterials should be treated as novel, regardless of the status of the conventionally sized material?

Answer:

- a) Food Standards Australia New Zealand’s (FSANZ) response to Budget Estimates Question on Notice SQ14-000567 and related questions on titanium dioxide note that it is reviewing the scientific literature for certain insoluble materials for which existing permissions exist in the Code, to determine whether there is any justification to establish specifications for particle size, based on the best available scientific evidence.
- b) FSANZ considers that the weight of evidence still indicates that the parent compound (or “conventionally sized material”) is likely to be the best predictor of the toxicity of nanoscale materials which may be used in food. This is particularly true for soluble materials, for which the toxicity is more related to the constituent ions or monomers, than the size of the particle *per se*. Most substances which are approved for use in food are soluble in water or oils and fall in this category.