



29 June 2018

Food Standards Australia New Zealand
PO Box 5423 PO Box 10559
KINGSTON ACT 2604

A1137 – Polysorbate 20 as a Food Additive

I wish to make comment on this Application on behalf of the Food Intolerance Network (FIN), which has 14,234 current members and so is probably the largest consumer organisation focused on food in Australia.

We wish to draw to your attention to recent scientific evidence of harm from this class of emulsifiers, showing that they are possibly not the benign additives which many scientists assume.

Chassaing B and others, Dietary emulsifiers impact the mouse gut microbiota promoting colitis and metabolic syndrome. *Nature*. 2015 Mar 5;519(7541):92-6.

<http://www.ncbi.nlm.nih.gov/pubmed/25731162> and Widely used food additives promotes colitis, obesity and metabolic syndrome, shows study of emulsifiers, *Science Daily*, <http://www.sciencedaily.com/releases/2015/02/150225132105.htm>

Chassaing B1, Gewirtz AT1. Has provoking microbiota aggression driven the obesity epidemic? *Bioessays*. 2016 Feb;38(2):122-8. "Alterations in the gut microbiome have increasingly been implicated in driving obesity and its associated diseases ..., we hypothesize that ... a range of societal changes, including use of antibiotics and increasing consumption of food additives, have provoked such microbiota aggression and, consequently, may be contributing factors to the increased incidence of obesity and its associated diseases." <https://www.ncbi.nlm.nih.gov/pubmed/26749135>

The researchers further commented: "We do not disagree with the commonly held assumption that over-eating is a central cause of obesity and metabolic syndrome," said researcher Andrew T. Gewirtz from Emory University in Atlanta. "Rather ... that low-grade inflammation resulting from an altered microbiota can be an underlying cause of excess eating." The team noted that the results of their study suggest that current means of testing and approving food additives may not be adequate to prevent use of chemicals that promote diseases driven by low-grade inflammation and/or which will cause disease primarily in susceptible hosts.

And this reference which suggests that increasing incidence of autoimmune diseases might be due to industrial food processing and food additive consumption:

Gut leakage is enhanced by many components including commonly used industrial food additives. Of particular concern are surfactants or emulsifiers added to foods which identical to the ones used in pharmaceuticals as drug absorption enhancers, such as mono- and di-glycerides of fatty acids, sucrose esters of fatty acids, polyglycerol esters of fatty acids, sodium/calcium stearoyl-2-lactylate and sorbitan esters of fatty acids and even lecithin. These are additives 470-492 among others and are not regarded as an issue for failsafers in terms of children's behaviour. Aaron Lerner and Torsten Matthias (2015) Changes in intestinal tight junction permeability associated with industrial food additives explain the rising incidence of autoimmune disease. *Autoimmunity Reviews*, 2015-06-01, Volume 14, Issue 6, Pages 479-489.

<https://www.clinicalkey.com.au/?returnurl=http%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1568997215000245%3Fshowall%3Dtrue&referrer=http%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F25676324#!/content/playContent/1-s2.0-S1568997215000245>

The FSANZ assessment report says "Although clinical data on human tolerance are limited, polysorbates are widely used as emulsifiers in foods and pharmaceuticals internationally, and have not been associated with adverse effects in consumers." Since there is no evidence of effects to assess, no such conclusion may be drawn.

We would prefer that the full range of emulsifiers were not approved but consider this unlikely in view of their current widespread use.

Regards



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www.fedup.com.au The Food Intolerance Network provides independent information about the effects of food on behaviour, health and learning in both children and adults, and support for families using a low-chemical elimination diet free of additives, low in salicylates, amines and flavour enhancers (FAILSAFE) for health, behaviour and learning problems. ABN 72 705 112 854