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Auckland Council

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Dear Jenny

Re: Foamstream assessment – response to further information requested

Below is my response to your request for further information regarding the use of Foamstream for weed management in road corridors (your email dated 3 September 2019). Before I answer the specific questions you posed, I think it is useful that I present the following email from the EPA scientist who was responsible for the assessment of the application for Foamstream V4 (Dr Michael Berardozzi).

I posed the following question to the EPA:

"My client wishes to use the product along road corridors/verges and is concerned that the surfactant properties of the foam create the potential for uptake of organic and inorganic contaminants, such as hydrocarbons and metals, which could then be carried into waterways. I was wondering if the EPA had considered this possible exposure pathway and if so, what their findings were?"

Below is Dr Berardozzi's response (in full):

"Hi Ngaire,

Our assessment of Foamstream V4 did not look specifically at the potential uptake of organic/inorganic contaminants from the treated zone linked to the surfactants contained in the substance.

Our environmental assessment focused on the potential impacts on non-target organisms from the substance itself based on its properties.

We acknowledge that this is an interesting question and would recommend (if not done already) getting in touch with the applicant/manufacturer S 7(2)(b)(ii) 3rd Party Commercial Position *to understand what their views on this might be.*

As far as we understand the mode of action/intended use pattern of the substance, it is clear that there will be some wash-off from the treated area, but that it would not necessarily result in more potential contamination than via usual clean-up/heavy rainfall events. That being said, again we did not investigate the potential interaction between the surfactants contained in Foamstream and their interaction with contaminants in the treated zone.

Best regards,

Michael"

Taking into account Dr Berardozzi's response, I have provided further information where possible to answer your questions.

1. Can the Hotfoam product concentrate roading/pavement associated contaminants (hydrocarbons, metals, organic pollutants) (i.e., will Hotfoam solution as applied, have greater ability to dissolve contaminants)?

It is not possible to definitely answer this question, as I have been unable to find any technical data that would provide this answer. It does not appear that such information was provided to the EPA for their assessment either. It is likely that if this information is available, it would only be available from the manufacturer.

2. Would ensuring Hotfoam product undergo filtration through a sorbent media reduce the concentration of those contaminants in (1) otherwise discharged to a receiving environment or stormwater network device (i.e., is there much value in taking extra precaution by laying sorbent socks around all entry points for the applied product to otherwise runoff the applied surface)?

This would depend on the nature of the contaminants and the nature of the filtration system.

3. Can you elaborate on the controls recommended by the EPA in clauses 46, 47 and 52 (i.e., what were they and what outcome would they support)?

Clauses 46, 47 and 52 in the Hazardous Substances (Hazardous Property Controls) Notice 2017 relate to the use of Class 9 substances (see below). The controls in Clauses 46 and 52 are in place to avoid adverse effects to the environment beyond the application area (EPA Decision document, paragraph 4.15). Clause 47 prescribes an additional control to restrict the use of Foamstream V4 to the appropriate equipment, namely the Foamstream Municipal Machine (EPA Decision document, paragraph 4.16).

46 Adverse effects to be avoided

A person who applies a class 9 pesticide must take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

47 Equipment must be appropriate

a) This clause applies to a class 9 substance, if it is used in a workplace.
b) Regulation 13.7 of the HSW HS Regulations applies to the substance for the purposes of this notice, as if the reference to a class 8 substance is replaced with a reference to a class 9 substance.

52 Class 9.1 pesticide or plant growth regulator must not be applied to water

1) A person must not apply a class 9.1 pesticide or class 9.1 plant growth regulator directly into or onto water.
2) This clause does not apply to a vertebrate toxic agent or fumigant.

4. Can you elaborate on whether other users of Hotfoam internationally, have applied controls equivalent or different to those recommended by the NZ EPA decision? Did the EPA decision in other countries specify any control or site limitations.

Foamstream has been exempted from the registration process in Canada, Europe, USA (Washington, California) and was exempted from full registration in Australia (where it is available). This may reflect its clearance for use as an organic, non-toxic and safe product by e.g. OF & G Organic Certification (UK). Therefore, I am unable to identify any controls specific to those countries.

5. Can you contact manufacturer to enquire

a. If the manufacturer can an estimation of the volume of the waste water (potential answer; x m^3/m^2 of treated area)

b. whether they apply or are researching additional controls to help manage for the risks in question (1) above (e.g., concentration of contaminants in product runoff)?

I note in your latest email (dated 19 September that you have contacted the manufacturer. I have therefore not pursued this information from the manufacturer.

Yours sincerely

Dr Ngaire Phillips