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Mr Davies

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Tēnā koe Mr Davies

Request for information relating to Maximum Acceptable Value (MAV) for azinphos-methyl in drinking water

Thank you for your email dated 12 September 2024, requesting the following information to be provided under the Official Information Act 1982 (OIA):

“I am writing to inquire about the recent increase in the Maximum Acceptable Value (MAV) for azinphos-methyl in drinking water from 0.004 mg/L to 0.1 mg/L, which represents a 2400% rise. This increase is perplexing, particularly given that azinphos-methyl was effectively banned over a decade ago following the New Zealand Environmental Risk Management Authority's decision to phase out its use. Given the ban, I would appreciate clarification on why an increase in the allowable concentration in drinking water is deemed necessary, especially considering its potential environmental and health impacts?”

Our response to your request is set out below.

Background

1. The Water Services (Drinking Water Standards for New Zealand) 2022 (Drinking Water Standards 2022) contain Maximum Acceptable Values (MAVs) of 120 chemicals in drinking water. The MAV is the level of a determinand¹ which should not be exceeded.
2. Azinphos-methyl is an insecticide, acaricide and molluscicide typically used in the agricultural industry.
3. Azinphos-methyl could potentially contaminate drinking water when it is used near waterways from which water is abstracted for drinking water supply.
4. Although use of this chemical has been prohibited in New Zealand since 2014, the Environmental Protection Agency (EPA) does sometimes allow small amounts of this substance to be used in New Zealand for research purposes.

¹A substance or characteristic that is determined or estimated in drinking water. This can be chemical, microbiological or radiological.

MAV increase for Azinphos-methyl

5. The old Drinking Water Standards for New Zealand 2005 (R2018) published by the Ministry of Health listed azinphos-methyl as a provisional MAV (PMAV) of 0.004 mg/l. A PMAV indicates that an appropriate level had not been determined and the World Health Organisation (WHO) had not set a guideline value (GV). PMAVs are used when there is incomplete information, and a precautionary approach is applied.
6. When we were drafting the Drinking Water Standards in 2021/22, we commissioned a report from the Institute of Environmental Science and Research Limited (ESR) on the proposed MAVs, titled *2022 MAV Review ESR Proposed Standards*. The report is attached to this response. Azinphos-methyl is referred to on pages 3 and 7 of the report. We considered the advice in the report when setting the MAVs in the Drinking Water Standards 2022.
7. The ESR report includes a section on ‘*Determinands for which there is no HBV calculation (HBV = health-based value)*’ which states: “*Prior to the preparation of the DWSNZ 2000, the Ministry of Health identified a suite of pesticides for which it derived provisional MAVs. These pesticides were registered for use in New Zealand, but there were no WHO GVs or HBVs. The MAVs were included in the 2000 and subsequent editions and revisions of the DWSNZ. The Taumata Arowai Establishment Unit requested that the MAVs for these determinands be reviewed and updated where necessary. This has been done. Only two changes to MAVs were required (azinphos methyl 0.004 to 0.1 mg/L and metalaxyl 0.1 to 0.3 mg/L).*”
8. After considering the advice from ESR, the Authority adopted the MAV for azinphos-methyl of 0.1 mg/L, as stipulated in the Drinking Water Standards 2022. When we next review the Drinking Water Standards 2022, we will consider whether the current PMAV for azinphos-methyl should be amended. We do not have a review planned at this stage but will likely consider a review in late 2025 or 2026.

Right to complain

You have the right by way of complaint to the Ombudsman under Section 28(3) of the OIA to seek an investigation and review of this response. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Ngā mihi



Steve Taylor
Head of Operations