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Special data (Part 10) - Products of nanotechnology

Products containing nanomaterials (that is, having at least one dimension less than 100 nanometres) are being developed for a wide range of uses, including as agricultural or veterinary chemicals. These products offer potential benefits including enhanced efficacy, better product stability and smaller environmental footprints. However, because of the extremely small size of these materials, they may behave very differently from their conventional counterparts. This may result in changes to the hazards as well as the behaviour displayed by nanomaterials, such that their risk profiles may differ from those of their microscale and macroscale counterparts. The properties of nanomaterials may also provide challenges for detection and analysis.

Nanotechnology is in its infancy. A considerable amount of work on developing nanomaterials and on the associated hazard identification and risk management has been undertaken already in Australia and overseas. The APVMA has been prominent in the risk assessment and related regulatory work as this work applies to agvet chemicals at the nanoscale. Regulatory frameworks for these materials need to be based on sound science which clearly describes how the behaviour of these materials differs from that of conventional products. As a first step, the APVMA has developed a [report](#) on the regulatory considerations applicable to agvet nanomaterials.

The APVMA has not yet published any detailed guidelines specifically about the registration and regulation of products containing nanomaterials. When you apply to register a product containing nanomaterials, the general rule is that you should provide information addressing the criteria we usually consider for conventional products. Additional data that properly characterises the nanomaterial and any hazards that are additional to the primary hazard or that alter that hazard should also be provided. These will allow us to apply risk management strategies on a case-by-case basis.

Until detailed guidelines are available, any person contemplating registering an agvet chemical product containing nanomaterials should first contact the APVMA for guidance on data specific to that product. Any advice given will reflect the practices current at the time for this developing science.

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1	1 July 2014	First version

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the Australian Government regulator of agricultural and veterinary (agvet) chemical products.

We acknowledge the traditional owners and custodians of country throughout Australia and acknowledge their continuing connection to land, sea and community. We pay our respects to the people, the cultures and the elders past, present and emerging.