



Use of isoeugenol-based anaesthetics – FAQs Information for Australian Seafood Businesses

Q: What is isoeugenol?

A: Isoeugenol is a water dispersible liquid anaesthetic. It is a phenylpropene substance that is extracted from certain essential oils. In Australia, [AQUI-S®](#) and [Sed8®](#) are the only isoeugenol-containing products that are registered for use by the Australian Pesticides and Veterinary Medicines Authority (APVMA). The APVMA is responsible for the regulation and control of agricultural and veterinary chemicals up to the point of retail sale and oversees the import and export of those chemicals and medicines.

Q: Can clove oil be used as a substitute for isoeugenol?

A: All users of agricultural and veterinary chemical products need to be aware that they are required to use these chemicals responsibly. Clove oil contains a mixture of compounds including eugenol, isoeugenol and methyleugenol. The composition of clove oil varies and some of its compounds are carcinogenic. Clove oil is not registered for use by the APVMA. Unregistered or unpermitted chemicals cannot be used without a prescription (where prescribing rights allow this).

Q: How can AQUI-S® and Sed8® be used?

A: The only permitted use for AQUI-S® and Sed8® in Australia is in the handling and harvesting of Salmonids by or under the direction of a registered veterinarian and within the limitations of the APVMA registered product labels. Sed8® is also permitted for euthanasia of fish (by or under the direction of registered veterinarian and within the limitations of the permit) where the fish are not destined for human consumption.

The use of these products, or any other veterinary product for any other purpose or in any other species that is not indicated on the label (i.e. off-label use) is only allowed if:

- a [permit](#) has been issued from the APVMA or
- a veterinarian has prescribed the off-label use of the medicine as well as written advice to the owner or manager with explicit information including dosage, withholding

periods and export slaughter intervals in line with relevant jurisdictional legislation and any importing country requirements.

- a Ministerial approval or permit has been issued from the state authorities for off-label use (only if applicable under State/Territory legislation).

The [Australian Veterinary Association prescribing guidelines](#) are regarded as minimum standards expected from a veterinary practitioner. The guidelines stipulate that the veterinarian assumes full responsibility for the use of any drug contrary to the drug's registered use pattern as reflected on the manufacturer's label. The occurrence of unacceptable residues as a result of over-prescribing may place the veterinarian in a legally-vulnerable position.

Off-label use is when a registered veterinary chemical product is prescribed for use in a manner that is outside the scope of the approved label instructions. Obtaining relevant approvals to use a chemical off-label does not exempt animal produce from compliance with residue limits for food suitability or export/import requirements. Further information on veterinary chemical product use for aquaculture can be found [here](#).

Legislative requirements are different in each jurisdiction so seeking advice from your state authority is the first step.

Please use the APVMA search functions on their website to determine whether a veterinary chemical product is registered (<https://portal.apvma.gov.au/pubcris>) or if a minor use or emergency permit exists (<https://portal.apvma.gov.au/permits>).

Q: What are the requirements for exporting seafood?

A: For fish to be exported as food Chapter 5 of the [Export Control \(Fish and Fish Products\) Rules 2021](#) requires that:

- fish are not given feed or treated with a substance that could adversely affect the fitness for human consumption of the fish and fish products
- fish and fish products for export as food must not contain an agricultural or veterinary chemical in an amount that contravenes the requirements of the Australia New Zealand Food Standards Code (see [Standard 1.4.2](#))
- importing country requirements are to be met for agricultural or veterinary chemicals where they are different to those in Australia (controls to meet importing country requirements for use of agricultural or veterinary chemicals must be documented in the Approved Arrangement).

Q: Is off-label use of AQUI-S® and Sed8® for export going to be audited?

A: The Department of Agriculture, Fisheries and Forestry (DAFF) audits export establishments against the requirements above. Establishments who are found at audit to be using agricultural or veterinary chemicals off-label without required permit or relevant approvals will be found non-compliant and issued a corrective action request by DAFF's food safety auditors or DAFF's approved food safety auditors.

The APVMA also undertake compliance and monitoring as required, while jurisdictional authorities may also undertake compliance in response to reports of inappropriate use of chemicals.

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