

PROCEDURE FOR PRODUCT (PESTICIDES & FERTILISERS) EVALUATION BY THE AGRI-FOOD & VETERINARY AUTHORITY (AVA)

Product evaluation is carried out by the Agri-Food & Veterinary Authority for the purpose of applicant to submit to the Public Utilities Board (PUB) for application of use in golf courses near water catchment areas.

I. Revised Application Procedure for Product Evaluation

1. Application

An application for product evaluation together with supporting documentation should be sent to

Animal & Plant Health Laboratories Division
Animal & Plant Health Centre
No. 6 Perahu Road
Singapore 718827
Attn : Ms. Yap Mei Lai
Deputy Head, Animal & Plant Health Laboratories Division (Plant Health)

2. An application should include the following documents:

- A letter of request for evaluation by the Golf Superintendent
- Completed Application Form for Plant Health Services (Appendix 1) (attached)
- For Pesticides – completed Appendix 2 (attached) and supporting documents (MSDS, Technical information, certificates etc) are required;
- For Fertilisers – please submit documentations as per listed in Appendix 3 (attached)

3. Product Definition

In the evaluation, unless the context otherwise requires –

a. Product evaluation of a pesticide involves the assessment of the active ingredient (A.I) for use in pest management in golf courses near water catchment areas.

“Active ingredient”, in relation to a pesticide, means

- Where the pesticide is not a formulated product, the chemical of which the pesticide is comprised; or
- Where the pesticide is a formulated product, the chemical that is principally responsible, or the chemicals that together are principally responsible, for its biological effects. Note: information on any synergistic effect of a mixture of A.Is or/& chemicals should be made available for evaluation.

b. Product evaluation of a fertilizer involves the assessment of the chemical composition for use in soil and plant nutrient management in golf courses near water catchment areas. Biofertilisers containing microbial organisms would not be evaluated.

- c. Products that do not belong to either categories – Pesticides or Fertilisers would be evaluated on a case-by-case basis and AVA reserves the right to accept them.
4. The onus of providing all relevant information that could help in the review of the product lies with the applicant. AVA reserves the right to reject application with incomplete documentation.
5. The cost of evaluation per chemical is \$240 (4 professional hours, excluding GST). Payment modes available are NETS, GIRO or Cheque (payable to “AVA”).
6. The evaluation of one product would be completed within 2 weeks upon receipt of all necessary documentation.
7. The report would be sent to the applicant upon successful payment. Additional copies of the report are available upon request at a cost of \$9.45 (excluding GST).
8. For enquires relating to product evaluation, please email to Ms Yap Mei Lai at Yap_Mei_Lai@ava.gov.sg.

II. Submission to PUB

Application for use of chemicals in golf courses near water catchment areas should be made to PUB at the following address:

Catchment and Waterways Department (PUB)
40 Scotts Road Environment Building #07-01
Attention: Dr Hans Eikaas (eikaas_hans@pub.gov.sg)

Please contact Dr Hans Eikaas for details on the submission procedures.

Note : The Agri-Food & Veterinary Authority of Singapore (AVA) controls agricultural pesticides used in the commercial cultivation of plants in Singapore under the Control of Plants Acts and the Control of Plants (Registration of Pesticides) Rules. Non-agricultural pesticides do not come under the purview of AVA. The National Environmental Agency (NEA) regulates hazardous chemicals under the Environmental Pollution Control (EPC) Act. The Public Utilities Board is the approval authority for chemicals to be used in golf courses near water catchments.

APPENDIX 2 – PESTICIDES

APPLICATION FOR PRODUCT (PESTICIDES) EVALUATION FOR USE IN GOLF COURSES NEAR WATER CATCHMENTS

[Applicant must provide all the relevant information as shown below. Use separate form for each pesticide]

Product Identity:

Trade Name	:
Common Name	:
Family /Class of chemical compound	:
Manufacturer/supplier	:
Local Distributor & Contact Name	:
Is there an equivalent (Family/Class) in the approved list?	: Yes / No If yes, please provide strong justification on why this new chemical product is required. Justification(s):

Information on ingredients:

Composition of ingredients:			
Active ingredient(s)	Chemical Name	%	CAS Registry No.

Please attach relevant copies of certificates from the manufacturer/suppliers if the product is found to contain the following:

Presence & composition of heavy metals:

Information on uses:

Main use	Delete where applicable: Insecticide / Fungicide / Others* (*Please give details)
Location of Use [Delete where applicable]	Delete where applicable: Ponds / Fairways./ Greens / Clubhouse / Others* (* Please give details)
Application rate (according to Manufacturer)	
Frequency of usage	
Target pests/diseases	

Registration Information:

AVA Registration mark (Please attach copy)	
Overseas Registration mark (Please attach copy)	Country: Registration mark:

Chemical & Degradation Information:

Chemical property	Active ingredient 1	Active ingredient 2
Water solubility		
Vapour pressure		
K _{OW} (Octanol/Water partition coefficient)		
K _{OL} (Organic carbon partition coefficient)		
K _D (Soil partition coefficient)		
K _{OM} (Organic matter partition coefficient)		
Degradation in soil and water:		
DT ₅₀ – Half Life (Field dissipation)		
T _{1/2} (soil-water)		

Toxicological Information

	Active ingredient 1	Active ingredient 2
WHO Classification by hazard		
Acute oral toxicity: LD ₅₀ (Oral/Rat)		
Acute inhalation toxicity: LC ₅₀		
Carcinogenic levels & effects		
Mutagenic levels & effects		
Reproductive/development toxicity levels and effects		
Sensitization levels and effects		
Acceptable daily intake		

APPENDIX 3 – FERTILISERS**PRODUCT EVALUATION – CHEMICAL FERTILISERS FOR USE IN GOLF COURSES NEAR WATER CATCHMENT AREAS**Documents required for the evaluation.

1. MSDS prepared by the Company in accordance with ANSI standardized format.
2. Information on Environmental safety, Runoff and Leaching of the product
3. Material specifications issued by the company (Signed and dated) - To include the following
 - Raw material used
 - Nutrient value of the raw material
 - Amount of raw material in the formulation
 - Amount of raw material as (% w/w or % w/v)
4. Details of rate of application and frequency
5. Product information brochure– Original issued by the company
6. If the fertilizer is fortified with organic materials / compounds, detailed chemical and biological lab analysis of the material should be furnished separately. If detailed information on the material used to fortify is not furnished, the product (s) will not be reviewed.
7. Information on any synergistic or antagonistic effects of additives / fortifiers should be made available.
8. Literature on product use – From peer reviewed journals and other publications.
9. Registration details of the product in other countries.

The onus of furnishing all relevant information that could help in the review of the product lies with the submitter. Soil Management Laboratory would perform the review only if it is satisfied that all the information needed (listed above) is made available.