



Summary of HS application **APP203736** and Submission guidance

Date Submissions Open:	19 July 2019
Date Submissions Close:	30 August 2019
Application number:	APP203736
Purpose:	To gain approval for import and release of the herbicide Boxer Gold containing 800 g/L prosulfocarb and 120 g/L S-metolachlor as an emulsifiable concentrate (EC) formulation.
Applicant:	Syngenta Crop Protection Limited
Application Lead:	Régis Lapage

Purpose of this document

On 5 July 2019, the Environmental Protection Authority (EPA) formally received an application from Syngenta Crop Protection Limited to import or manufacture for release Boxer Gold. This substance is intended to be used as a herbicide for the control of various broadleaf and grass weeds in potatoes and contains two active ingredients, S-metolachlor and prosulfocarb. S-metolachlor is already approved in New Zealand whereas prosulfocarb is a new active ingredient to New Zealand. The herbicide is proposed to be applied using a tractor-driven boom spray.

This application is being publicly notified to enable the public to comment and to put all relevant information before the decision makers.

The purpose of this document is to summarise the application and to provide guidance on the submission process.

Application summary

This document has been prepared by EPA staff as a summary of the information provided in the application only, to aid submitters in preparing a submission. It is not the risk assessment produced by EPA staff. The EPA staff risk assessment will be completed at a later date using information from the application, submissions and other relevant sources.

Submission process

This document also provides guidance to the submission process. The EPA encourages all submissions. The submission period for this application will start on 19 July 2019 and will end on 30 August 2019 at 5 pm. In a submission you can provide information, make comments and raise issues. In this way, you contribute to the EPA decision-making process on specific applications. We are particularly interested in hearing from you on the following matters:

- Adverse effects, especially adverse effects not identified in the application¹; and
- Positive effects, especially positive effects not identified in the application².

Further information on the purpose of submissions is available from the EPA website using the link below:

<https://www.epa.govt.nz/public-consultations/open-consultations/>

If you have any questions, you can contact:

- The applicant directly for any question you may have on the technical information in the application or the information provided to the EPA. The applicant representative, Michelle Hickman, can be contacted by e-mail (michelle.hickman@syngenta.com) or by phone (00612 8876 8445).
- The EPA for any question on the application and/or submission process. The Application Lead, Régis Lapage, can be contacted by e-mail (Regis.Lapage@epa.govt.nz) or by phone (+64 4 474 5511).

¹ Adverse effects can include any risks and costs associated with release of the substance.

² Positive effects can include any benefits associated with release of the substance.

Application summary

1. Syngenta Crop Protection Limited applied to import for release Boxer Gold, an emulsifiable concentrate (EC) formulation containing 800 g prosulfocarb/L and 120 g S-metolachlor/L for the control of various broad leaf and grass weeds in potatoes.

Intended uses

2. Boxer Gold is a herbicide intended for one application per season prior to the emergence of the crop (potatoes) or in the early growth stages (no later than 25% potato shoot emergence) by tractor-driven boom spray application. The intended application rate is 4 – 5 L of Boxer Gold per hectare (ha). This corresponds to 3.2 – 4 kg of prosulfocarb/ha and to 0.48 – 0.6 kg of S-metolachlor/ha.
3. This product is intended for professional use.

Regulatory history

4. The active ingredient prosulfocarb is a new active ingredient in New Zealand. It is approved in the European Union (up to 4 kg/ha on potatoes), as well as in Australia and Japan.
5. The active ingredient S-metolachlor is approved in New Zealand. It is also approved in the European Union, Australia, Japan, Canada and the USA.
6. The Boxer Gold formulation is approved in Australia (for the same uses as those intended in New Zealand), as well as in Chile and Saudi Arabia.

Hazardous properties

7. The applicant has submitted more than 550 studies and documents (including human health and environmental risk assessments) to support their application, which will be evaluated by the EPA in preparing the Staff Assessment Report for this application. The applicant proposes that Boxer Gold be assigned the following hazard classifications:

Hazard class/subclass	HSNO Classification
Acute toxicity (oral)	6.1E
Acute toxicity (dermal)	6.1E
Acute toxicity (inhalation)	6.1D
Skin irritancy	6.3B
Target organ systemic toxicity	6.9B
Aquatic ecotoxicity	9.1A
Soil ecotoxicity	9.2A

8. The submitted application form is available on the link below:

<https://www.epa.govt.nz/database-search/hsno-application-register/view/APP203736>

Adverse and beneficial effects

9. The following is a summary of the applicant's overall evaluation of the risks, costs and benefits associated with the release of the substance. For greater detail, please refer to the application form.

Risks

10. According to the applicant, Boxer Gold triggers acute toxicity by the oral and dermal routes (6.1E) and by the inhalation route (6.1D). The substance also triggers mild skin irritancy (6.3B) and target organ toxicity (6.9B). The applicant stated that, according to their own assessment, the risks were found to be acceptable for the operators, re-entry workers and bystanders provided the product is used according to the label directions and with suitable water volumes when wearing gloves during mixing, loading and application.
11. The applicant noted that Boxer Gold is not classified for any long term toxicity hazards (such as mutagenicity, carcinogenicity, reproductive and developmental toxicity).
12. The applicant noted that Boxer Gold will be available to approved handlers only. Therefore, this product will be handled by personnel trained in the handling of agricultural chemicals.
13. According to the applicant, Boxer Gold classifies as very ecotoxic in the aquatic environment (9.1A). The applicant noted that aquatic organisms and plants may potentially be exposed to the substance through spray drift, runoff and drainage from the application site into adjacent waterways or by incorrect disposal of waste substance into waterways.
14. The applicant conducted an aquatic risk assessment, which showed that the acute and chronic risks to all indicator aquatic species including algae are acceptable even with a zero no-spray zone. In addition, the applicant noted that bioaccumulation studies with prosulfocarb and S-metolachlor show that they will not bioaccumulate or bioconcentrate in fish. The applicant indicated that the risks to aquatic organisms following the use of the substance according to the label directions are acceptable.
15. According to the applicant, Boxer Gold classifies as very ecotoxic in the soil environment (9.2A), which is due to the toxicity of the substance and both active ingredients to some terrestrial plants.
16. The applicant conducted an environmental risk assessment, which showed that a 5 meters no-spray zone reduces the risk to non-target plants to an acceptable level.

17. The applicant noted that both active ingredients degrade relatively quickly in soil. S-metolachlor has a complex degradation pattern, forming a large number of metabolites, some at significant levels. Environmental and toxicity studies with S-metolachlor metabolites showed that those metabolites are not of higher toxicity than the parent.
18. The applicant noted that the acute toxicity levels of the active ingredients to earthworms and other soil invertebrates are below the EPA trigger levels.
19. The applicant noted that the EPA classification for terrestrial vertebrates is not triggered for Boxer Gold.
20. The applicant noted that the EPA classification for terrestrial invertebrates is not triggered for Boxer Gold. Studies on the active ingredients showed that it is of low toxicity to bees.

Costs

21. The applicant identified the overall costs associated with Boxer Gold as being minimal.

Benefits

22. The applicant identified the following benefits for Boxer Gold:
 - Boxer Gold contains two active ingredients with different modes of action, reducing resistance risk. In addition, Boxer Gold contains a new active ingredient and therefore broadens the spectrum of weeds controlled as well as provides choice and adaptability to potato producers.
 - Boxer Gold is a short residual, soil applied, pre-emergent herbicide that is absorbed by the roots and shoots (coleoptile) of germinating weed seedlings causing inhibition of growth in the meristematic region. Foliar uptake is possible but of lower effect. Upstream translocation in the plant occurs but movement in the phloem is very unlikely.
 - Early control of weeds allows for the healthy establishment of potatoes and maximisation of yields, leading to increased profits and benefits for growers as well as rural and national economy.
 - Boxer Gold is intended for pre-emergence use, which is generally associated with slower development of resistance.

Please let us know whether you consider that there are additional adverse effects that we should be aware of or additional information related to the described effects.

When identifying adverse effects it is important that you provide us with reasons as to:

- What other adverse effects are **likely** to be caused by the use of Boxer Gold
- How **likely** these adverse effects are and their potential scale

- How you think the adverse effects could happen (i.e. the series of events that would have to happen for the adverse effects to occur)
- Options and proposals for managing the adverse effects
- Any uncertainty you have on the scope of the information we will use to assess the adverse effects.

Please let us know whether you consider that there are additional positive/beneficial effects that we should be aware of or additional information related to the described effects.

When identifying positive/beneficial effects, it is important that you provide us with information on:

- Other positive effects **likely** to be caused by the use of Boxer Gold
- How **likely** these positive/beneficial effects are and their potential scale
- How you think the positive/beneficial effects could happen (i.e. the series of events that would have to happen for the positive/beneficial effects to occur)
- Options and proposals for ensuring the positive/beneficial effects occur, and
- Any uncertainty you have on the scope of the information used to assess the positive/beneficial effects.

Other information

If there is other information you wish us to be aware of, please also include this in your submission.

Making a submission

What is a submission?

We encourage anyone to make a submission, regardless of how much detail you are able to put in to it. In your submission, you can also request a hearing if you would like to strengthen your views in person before the Decision-Making Committee. Further information on submissions for a hazardous substance application is available from the EPA website using the link below:

<https://www.epa.govt.nz/public-consultations/how-to-make-a-submission/>

Submissions are publicly available and will be displayed on the application web page after submissions close. If you have confidential information you wish to provide, please contact the Application Lead, Regis Lapage, by e-mail (Regis.Lapage@epa.govt.nz) or by phone (+64 4 474 5511).

How to make a submission?

The EPA website provides guidance on how to make a submission. This is preferably done via the EPA submission form but may be sent as a letter or email to the EPA. This information and the submission form can be accessed from the EPA website using the link below:

<https://www.epa.govt.nz/assets/Uploads/Documents/New-Organisms/Forms/Submission-form-for-HSNO-applications.doc>

Or a submission can be made using our online response tool (linked below):

<https://submissions.epa.govt.nz/consultations/app203736-boxer-gold/make-a-submission>

What happens after you make a submission?

When the submission period closes, all submissions will be summarised and made available to the Decision-Making Committee together with the EPA Staff Assessment Report.

You are entitled to bring witnesses who may speak to your submission at a hearing. If you choose this option, you should provide the EPA with a list of the witnesses, their areas of expertise, and the elements of the submission or application they will talk to.

You are also entitled to speak at the hearing in one of the three official languages of New Zealand: English, Māori or New Zealand Sign Language. Please advise the Application Lead at least two weeks prior the hearing in order for the EPA to organise for an interpreter. The Application Lead, Régis Lapage, can be contacted by e-mail (Regis.Lapage@epa.govt.nz) or by phone (+64 4 474 5511).

At least two weeks prior to the hearing, both the applicant and submitter(s) need to provide the EPA with copies of any information they intend to present at the hearing.

A decision will be made by the Decision-Making Committee at the end of the consideration period. This will be made public on the EPA website.