

FINAL REGISTRATION REPORT

Part B

Section 6

Mammalian Toxicology

Detailed summary of the risk assessment

Product code: AKO 600 SC

Product name(s): Tanger 600 SC, Libretto 600SC

Chemical active substance:

Aclonifen, 600g/L

Central Zone

Zonal Rapporteur Member State: Poland

Co-Rapporteur Member State: Hungary, Slovakia, Germany,
Romania

CORE ASSESSMENT

(authorization)

Applicant: Innvigo Sp. Z o.o.

Submission date: 18.11.2024

zRMS Assessment : 28/06/2025

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Version history

When	What
June 2025	zRMS evaluation
October 2025	Following commenting period
June 2026	Final version

Table of Contents

6	Mammalian Toxicology (KCP 7).....	5
6.1	Summary	5
6.2	Toxicological Information on Active Substance(s)	9
6.3	Toxicological Evaluation of Plant Protection Product.....	10
6.4	Toxicological Evaluation of Groundwater Metabolites.....	11
6.5	Dermal Absorption (KCP 7.3)	11
6.5.1	Justification for proposed values - aclonifen	12
6.6	Exposure Assessment of Plant Protection Product (KCP 7.2).....	13
6.6.1	Selection of critical use(s) and justification	14
6.6.2	Operator exposure (KCP 7.2.1)	14
6.6.2.1	Estimation of operator exposure	14
6.6.3	Measurement of operator exposure.....	19
6.6.4	Worker exposure (KCP 7.2.3)	20
6.6.4.1	Estimation of worker exposure	20
6.6.4.2	Refinement of generic DFR value (KCP 7.2).....	26
6.6.4.3	Measurement of worker exposure.....	26
6.6.5	Bystander and resident exposure (KCP 7.2.2)	27
6.6.5.1	Estimation of bystander and resident exposure	27
6.6.5.2	Measurement of bystander and/or resident exposure.....	37
6.6.6	Combined exposure	38
6.6.6.1	Exposure Assessment of aclonifen and clomazone in a mixture of AKO 600 SC and BOA PRO 480 EC.....	38
Appendix 1	Lists of data considered in support of the evaluation	44
Appendix 2	Detailed evaluation of the studies relied upon.....	47
A 2.1	Statement on bridging possibilities	47
A 2.2	Acute oral toxicity (KCP 7.1.1)	47
A 2.3	Acute percutaneous (dermal) toxicity (KCP 7.1.2)	49
A 2.4	Acute inhalation toxicity (KCP 7.1.3)	52
A 2.5	Skin irritation (KCP 7.1.4).....	54
A 2.6	Eye irritation (KCP 7.1.5).....	57
A 2.7	Skin sensitisation (KCP 7.1.6).....	59
A 2.8	Supplementary studies for combinations of plant protection products (KCP 7.1.7)	60
A 2.9	Data on co-formulants (KCP 7.4)	61
A 2.10	Studies on dermal absorption (KCP 7.3)	61
A 2.11	Other/Special Studies	64
Appendix 3	Exposure calculations	66

6 Mammalian Toxicology (KCP 7)

According to Regulation 1107/2009 data protection for data at European level lasts for 10 years. Due to the fact that the aclonifen annex I was approved on 1/08/2009, data protection has expired 1/08/2019. Therefore, Innvigo can use the European data for aclonifen for the registration of the product AKO 600 SC [Libretto 600 SC, Tanger 600 SC]

6.1 Summary

Table 6.1-1: Information on AKO 600 SC

Product name and code	AKO 600 SC
Formulation type	SC
Active substance(s) (incl. content)	Aclonifen, 600g/L
Function	Herbicide
Product already evaluated as the 'representative formulation' during the approval of the active substance(s)	Yes /No ²
Product previously evaluated in another MS according to Uniform Principles	Yes /No ²

*Information on the detailed composition of AKO 600 SC can be found in the confidential dRR Part C.

Justified proposals for classification and labelling

According to the criteria given in Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008, the following classification and labelling with regard to toxicological data is proposed for the preparation:

Table 6.1-2: Justified proposals for classification and labelling for AKO 600 SC according to Regulation (EC) No 1272/2008

Hazard class(es), categories:	Skin Sens.1, H317 Carc. 2, H351
Hazard pictograms or Code(s) for hazard pictogram(s):	
Signal word:	Warning
Hazard statement(s):	H317 - May cause an allergic skin reaction. H351 - Suspected of causing cancer.
Precautionary statement(s):	P261 - Avoid breathing dust/fume/gas/mist/vapours/ spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/ protective clothing/eye protection/ face protection. P302 + P352 – IF ON SKIN: Wash with plenty of water. P308 + P313 - IF exposed or concerned: Get medical advice/ attention. P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention. P362 + P364 – Take off contaminated clothing and wash it before reuse. P405 – Store locked up.
Additional labelling phrases:	To avoid risks to man and the environment, comply with the instructions for use. [EUH401]
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Table 6.1-3: Summary of risk assessment for operators, workers, bystanders and residents for AKO 600 SC

	Result	PPE / Risk mitigation measures
Operators	Acceptable	PPE – workwear and gloves , 50% drift reduction, 10 m buffer strip PPE – workwear and gloves; 5 m buffer strip, 50% drift reduction
Workers	Acceptable	PPE – workwear and gloves (covered body, hands and legs), 50% drift reduction, 10 m buffer strip, re entry interval period is required PPE – Hands, arms, body, legs covered; 5 m buffer strip, 50% drift reduction; re entry interval period is required
Bystanders	Acceptable	50% drift reduction, 10 m buffer strip; Additional risk mitigation only for maximum dose: warning signs informing about recent use of PPP next to treated area and informing residents and bystanders about the schedule od spraying action 5 m buffer strip, 50% drift reduction Additional risk mitigation only for maximum dose: warning signs informing about recent use of PPP next to treated area and informing residents and bystanders about the schedule od spraying action
Residents	Acceptable	50% drift reduction, 10 m buffer strip; Additional risk mitigation only for maximum dose: warning signs informing about recent use of PPP next to treated area and informing residents and bystanders about the schedule od spraying action 5 m buffer strip, 50% drift reduction Additional risk mitigation only for maximum dose: warning signs

	Result	PPE / Risk mitigation measures
		informing about recent use of PPP next to treated area and informing residents and bystanders about the schedule of spraying action

No unacceptable risk for operators, workers, bystanders and residents was identified when the product is used as intended and provided that the PPE/ risk mitigation measures stated in Table 6.1-3 are applied.

A summary of the critical uses and the overall conclusion regarding exposure for operators, workers and bystanders/residents is presented in the following table.

Table 6.1-4 Critical uses and overall conclusion of exposure assessment

1	2	3	4	5	6	7	8	9	10
Use- No.*	Crops and situa- tion (e.g. growth stage of crop)	F, Fn, Fpn G, Gn, Gpn or I**	Application Method / Kind (incl. applica- tion technique ***)	Max. number (min. interval between applications) a) per use b) per crop/ season	Max. applica- tion rate L-product/ha a) a.s. 1 b) a.s. 1	Water L/ha min / max	PHI (d)	Remarks: (e.g. safen- er/synergist (L/ha)) critical gap for operator, worker, bystander or resident exposure based on [Expo- sure model]	Acceptability of exposure as- sessment
									Operator Worker Bystander Residents
1	Field Crops	F	Spray	n/a	1.95 – 3.0 L/ha	200-300	n/a	-	
2	Low vegetables	F	Spray	n/a	1.95 – 3.0 L/ha	200-400	40	-	
3	Low vegetables	F	Spray	n/a	a) 0.8 – 2.0 L/ha AKO-600 SC + 0.2 L/ha Boa Pro 480 EC (eloma- zon 480 g/L)	200-400	40	-	
4	High ornamentals	F	Spray	n/a	1.95 – 3.0 L/ha	200-300	n/a	-	
5	Low ornamentals	F	Spray	n/a	1.80 – 2.5 L/ha	150-400	n/a	-	

The risk assessment for the combinations of AKO 600 SC with BOA PRO 480 EC is covered by the risk assessment of these plant protection products used separately. Risk assessment of BOA PRO 480 EC is not a subject of this documents.

* Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

** F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

*** e.g. LC: low crops, HC: high crop, TM: tractor-mounted, HH: hand-held

Explanation for column 10 “Acceptability of exposure assessment”

A	Exposure acceptable without PPE / risk mitigation measures
R	Further refinement and/or risk mitigation measures required
N	Exposure not acceptable/ Evaluation not possible

Data gaps

No data required

Comments by zRMS:	The applicant provided exposure assessment for operator, worker, bystander and resident using EFSA online calculator v 1.1.1. (OPEX) and Field Crops, Low Vegetables, Low Ornamentals and High Ornamentals scenarios.
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According to B0 GAP AKO 600 SC is a pre-emergence herbicide (BBCH 01-09 potato and BBCH 01-08 other crops), max. application rate is 2 l/ha (1.2 kg as/ha). Moreover the applicant provided risk assessment for the combinations of AKO 600 SC with BOA PRO 480 EC (tank mixture) separately for each plant protection product. According to product label AKO 600 SC should be applied not later than a week before crop emergence. Thus the evaluator has revised operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). As a worst case the highest concentration for in-use dilution has been applied (use 5 19 in B0 GAP Table 6.1.4). 0.2 L/ha. In addition the evaluator has revised operator exposure for Boa Pro 480 EC (clomazone 480 g/L) used in tank mixture (use 3 in B0 GAP Table 6.1.4). Risk assessment of BOA PRO 480 EC is not a subject of this documents and was taken into account by the evaluator separately. There will be no crop growing on the field at the time of application. Therefore, it is not necessary to perform any re-entry activities shortly after application. Inspection without contact with treated soil scenario has been applied for worker exposure assessment.

Table 6.1-3: Summary of risk assessment for operators, workers, bystanders and residents for AKO 600 SC

	Result	PPE / Risk mitigation measures
Operators	Acceptable	Workwear during mixing/loading and application (resulting from exposure assessment) + gloves and face protection (due to the fact that the product is classified as Skin Sens.1, H317) For use 3 (tank mixture with Boa Pro 480 EC) Workwear and gloves during mixing/loading and application (resulting from exposure assessment) + face protection (due to the fact that the product is classified as Skin Sens.1, H317)
Workers	NA	NA (bare soil treatment, no re-entry worker risk assessment)
Residents	Acceptable	Due to classification of in-use dilution of AKO 600 SC as Skin Sens.1, H317 the use of 50% drift reducing technology is recommended. For use 3 (tank mixture with Boa Pro 480 EC) 50% drift reducing technology, 5 m buffer zone and warning signs informing about recent use of PPP next to treated field is recommended in order to reduce exposure to clomazone.
Bystanders	NA	NA

Table 6.1-4 Critical uses and overall conclusion of exposure assessment

1	2	3	4	5	6	7	8	9	10
Use- No. *	Crops and situation (e.g. growth stage of	F, Fn, Fp	Application		Application rate		PH I (d)	Remarks: (e.g. safener/synergist	Acceptability of exposure assessment

	crop)	n G, G n, G pn or I **	Method / Kind (incl. appli- cation technique ***	Max. number (min. interval between applica- tions) a) per use b) per crop/ season	Max. application rate L prod- uct/ha a) a.s. 1 b) a.s. 1	Water L/ha min / max		(L/ha)) critical gap for operator, worker, bystander or resident exposure based on [Exposure model]	Operator	Worker	Bystander	Residents
3	Bare arable land	F	Spray, TM	n/a	a) 0.8- 2.0 L/ha AKO 600 SC + 0.2 L/ha Boa Pro 480 EC (clomazon 480 g/L)	200- 40030 0	40	Guidance on the assess- ment of exposure of operators, workers, residents and bystanders in risk assess- ment for plant protec- tion products; EFSA Jour- nal 2022;20(1):7 032				
519 *	Bare arable land	F	Spray, TM	n/a	1.80 –2.5 2 L/ha	150- 400	n/a					
*worst case covers all uses (1-2 and 4-26)												

6.2 Toxicological Information on Active Substance(s)

Information regarding classification of the active substances and on EU endpoints and critical areas of concern identified during the EU review are given in Table 6.2-1.

Table 6.2-1: Information on active substance(s)

	Aclonifen	-
Common Name	Aclonifen	-
CAS-No.	74070-46-5	-
Classification and proposed labelling		
With regard to toxicological endpoints (according to the criteria in Reg. 1272/2008, as amended)	Hazard classes (s), categories: a) Skin Sens. 1A; H317 b) Carc. 2; H351 c) Aquatic Acute 1: H400 d) Aquatic Chronic 1: H410 Code(s) for hazard pictogram(s): GHS08, GHS07, GHS09 Signal word: Warning Hazard statement(s): H317 – <i>May cause an allergic skin reaction</i> H351 – <i>Suspected of causing cancer</i> H400 – <i>Very toxic to aquatic life</i> H410 – <i>Very toxic to aquatic life with long lasting effects</i> Precautionary statement(s):	-
Additional C&L proposal		-

	Aclonifen	-
Agreed EU endpoints		
AOEL systemic	0.07 mg/kg bw/d	-
Reference	EFSA Scientific Report (2008) 149, 1-80	-
Conditions to take into account/critical areas of concern with regard to toxicology		
EFSA Scientific Report (2008) 149, 1-80	Operator exposure amounted to 16.1% of the AOEL when wearing personal protective equipment (PPE) in the German model. When no PPE is worn in the German model and in all scenarios in the UK POEM exposures exceeded the AOEL. Exposure of bystanders and unprotected re-entry workers was estimated to amount to 4.6% and 2.9% of the AOEL respectively. None	-

6.3 Toxicological Evaluation of Plant Protection Product

A summary of the toxicological evaluation for AKO 600 SC is given in the following tables. Full summaries of studies on the product that have not been previously considered within an EU peer review process are described in detail in Appendix 2.

Comments of zRMS:	AKO 600 SC was not a representative formulation reviewed during the Annex I inclusion/active substances renewal and was not previously evaluated in any EU countries. For the product registration no experimental acute toxicity data are available. An assessment of acute toxicity including irritancy and skin sensitisation properties of AKO 600 SC has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008. Classification of all relevant ingredients were considered by the applicant. For carcinogenicity the alternative method (calculation) according to the Regulation (EC) 1272/2008 was applied. Details of the calculation can be found in Part C. In order to avoid tests on animals, the use of alternative method for the purposes of hazard classification is preferred. Proposed classification based on alternative method according to Regulation (EC) 1272/2008 is acceptable by the zRMS.
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Table 6.3-1: Summary of evaluation of the studies on acute toxicity including irritancy and skin sensitisation for AKO 600 SC

Type of test, species, model system (Guideline)	Result	Acceptability	Classification (acc. to the criteria in Reg. 1272/2008)	Reference
LD ₅₀ oral (calculation method – alternative method)	> 2000 mg/kg bw	Yes	None	I. Muchewicz (2024)
LD ₅₀ dermal (calculation method – alternative method)	> 2000 mg/kg bw	Yes	None	I. Muchewicz (2024)

LC ₅₀ inhalation (calculation method – alternative method)	> 20 mg/L air	Yes	None	I. Muchewicz (2024)
Skin irritation (calculation method – alternative method)	Non-irritant	Yes	None	I. Muchewicz (2024)
Eye irritation (calculation method – alternative method)	Non-irritant	Yes	None	I. Muchewicz (2024)
Skin sensitisation (calculation method – alternative method)	Sensitising	Yes	Skin Sens. 1, H317	I. Muchewicz (2024)
Supplementary studies for combinations of plant protection products	No data	Yes		
Carcinogenicity (calculation method – alternative method)	Classified	Yes	Carc. 2, H351	I. Muchewicz (2024)

Table 6.3-2: Additional toxicological information relevant for classification/labelling of AKO 600 SC

	Substance (Concentration in product, % w/w)	Classification of the substance (acc. to the criteria in Reg. 1272/2008)	Reference	Classification of product (acc. to the criteria in Reg. 1272/2008)
Toxicological properties of active substance(s) (relevant for classification of product)	Aclonifen (50.6 % w/w)	Skin Sens. 1, H317 (criteria ≥ 0.1 %) Carc. 2, H351 (criteria ≥ 1 %)	Reg. 1272/2008	Skin Sens. 1, H317 Carc. 2, H351
Toxicological properties of non-active substance(s) (relevant for classification of product)	No data			
Further toxicological information	No data			

* Please use concentration range or concentration limit (e.g. 1-10 % or > 1 %) as provided in MSDS.

** Material safety data sheet by the applicant

6.4 Toxicological Evaluation of Groundwater Metabolites

No data required

6.5 Dermal Absorption (KCP 7.3)

Comments by zRMS:	Dermal absorption assessment provided by the applicant is based on the current version of EFSA Guidance document on dermal absorption (2017) and is acceptable. Data from in-vitro absorption study on concentrate and dilution of formulation identical to AKO 600 SC were provided for dermal absorption value for aclonifen. The target concentration of dilution was approximately 0.45 g aclonifen/L, representing 1:1333 dilution of the concentrate formulation. The highest in-use dilution of AKO 600 SC is 1:5200 (1.23 g aclonifen/L) when AKO 600 SC is used as tank mixture. The study is acceptable for
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	evaluation of dermal absorption of aclonifen from concentrate and in-use dilution of AKO 600 SC. No pro rata correction is needed.
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A summary of the dermal absorption rates for the active substances in AKO 600 SC are presented in the following table.

Table 6.5-1: Dermal absorption rates for active substance in AKO 600 SC

	Aclonifen	
	Value	Reference
Concentrate	10 %	EFSA Journal 2017;15(6):4873
Dilution	50 %	EFSA Journal 2017;15(6):4873
Concentrate	0.49 %	Lanjuin J., 2024, S24-103695 <i>IN-VITRO</i> HUMAN SKIN PENETRATION OF ACLONIFEN IN AKO 600 SC TEST ITEM
Dilution	35 %	

6.5.1 Justification for proposed values - aclonifen

~~No data on dermal absorption for aclonifen in AKO 600 SC is available.~~ Justifications for default values according to Guidance on Dermal Absorption (EFSA Journal 2017;15(6):4873) are presented in the following table.

New dermal absorption study was performed for aclonifen in AKO 600 SC and its presented in Appendix 2

Table 6.5-2: Default dermal absorption rates for aclonifen

	Value	Justification for value	Acceptability of justification
Concentrate	10 %	A default dermal absorption value of 10% may be applied for concentrated products that are water based/dispersed or solid formulated	
Dilution	50 %	A default dermal absorption value of 50% may be applied for (in use) dilutions water based/ dispersed or solid formulated.	
Concentrate	0.49 %	Lanjuin J., 2024, S24-103695 <i>IN-VITRO</i> HUMAN SKIN PENETRATION OF ACLONIFEN IN AKO 600 SC TEST ITEM	Acceptable
Dilution	35 %		Acceptable

6.6 Exposure Assessment of Plant Protection Product (KCP 7.2)



AKO600SC - OPEX 1.1.1.zip

Comments by zRMS:

The applicant provided exposure assessment for operator, worker, bystander and resident using EFSA online calculator v 1.1.1. (OPEX) and Field Crops, Low Vegetables, Low Ornamentals and High Ornamentals scenarios. According to B0 GAP AKO 600 SC is a pre-emergence herbicide (BBCH 01-09 potato and BBCH 01-08 other crops), max. application rate is 2 l/ha (1.2 kg as/ha). According to product label AKO 600 SC should be applied not later than a week before crop emergence. Thus the evaluator has revised operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). As a worst case the highest concentration for in-use dilution has been applied (use 19 in Table 6.1.4 B0 GAP). In addition the evaluator has revised operator exposure for Boa Pro 480 EC (clomazon 480 g/L) used in tank mixture (use 3 in B0 GAP Table 6.1.4). Risk assessment of BOA PRO 480 EC is not a subject of this documents and was taken into account by the evaluator separately. There will be no crop growing on the field at the time of application. Therefore, it is not necessary to perform any re-entry activities shortly after application. Inspection without contact with treated soil scenario has been applied for worker exposure assessment.



AKO 600 SC bare soil_20251005_14h12_opex1.1.2.zip



REGISTRATION_AKO
600 SC bare soil_2025



AKO 600 SC + Boa Pro 480 EC _20251005_13h45_opex1.1.2.zip



REGISTRATION_AKO
600 SC + Boa Pro 480

Buffer strip 5 m, drift reduction 50%



AKO 600 SC + Boa Pro 480 EC _20251005_14h53_opex1.1.2.zip



REGISTRATION_AKO
600 SC + Boa Pro 480

Table 6.6-1: Product information and toxicological reference values used for exposure assessment

Product name and code	AKO 600 SC	
Formulation type	SC	
Category	Herbicide	
Container size(s), short description	HDPE, screw cap wth seal, 0.25 - 222L HDPE/PA, screw cap wth seal, 0.275 – 10L HDPE/F, screw cap with seal, 0.31 – 10L HDPE/EvOH, screw cap with seal, 0.25 - 20L	
Active substance(s) (incl. content)	Aclonifen 600 g/L	-
AOEL systemic	0.07 mg/kg bw/d	-
Inhalation absorption	100 %	-
Oral absorption	100 %	-
Dermal absorption	Concentrate: 10 0.49 % (Lanjuin J., 2024, S24-103695) Dilution: 50 35 % (Lanjuin J., 2024, S24-103695)	-

6.6.1 Selection of critical use(s) and justification

The critical GAPs used for the exposure assessment of the plant protection product are shown in Table 6.1-4. A list of all intended uses within the zone is given in Part B, Section 0.

6.6.2 Operator exposure (KCP 7.2.1)

6.6.2.1 Estimation of operator exposure

A summary of the exposure models used for estimation of operator exposure to the active substances during application of AKO 600 SC according to the critical use(s) is presented in Table 6.6-2. Outcome of the estimation is presented in Table 6.6-3. Detailed calculations are in Appendix 3.

Table 6.6-2: Exposure models for intended uses

Critical use(s)	Field Crops (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 0.8 – 2.0L of AKO 600 SC/ha + 0.2L of BOA PRO 480 EC/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Ornamentals (max. 2.5L of product/ha)

Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	High Ornamentals (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023

Table 6.6-3: Estimated operator exposure Aclonifen

Aclonifen						
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to field crops (Re-entry activity: inspection, irrigation) Buffer strip: 5 m; Drift reduction: 50%						
Application rate: 1.8 kg of aclonifen a.s./ha (3L of AKO 600 SC/ha)					Application rate: 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600 SC/ha)	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.6 0.06 0.06	852 87.4 87.4	0.04 0.04	59.7 59.7
	Application	Protected body Protected hands	0.02 0.002 0.002	29.6 2.5 2.5	0.001 0.001	1.8 1.8
	Mixing & Loading	Protected body Protected hands				

Aclonifen						
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Inspection, irrigation (All)) Buffer strip: 5 m; Drift reduction: 50%						
Application rate: 1.8 kg of aclonifen a.s./ha (3L of AKO 600 SC/ha)					Application rate: 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600 SC/ha)	
OPEX Model (75 th -percentile) Body weight: 60 kg	None		0.6 0.06 0.06	852 87.4 87.4	0.04 0.04	59.7 59.7
	Application	Protected body Protected hands	0.02 0.002 0.002	29.6 2.5 2.5	0.001 0.001	1.8 1.8
	Mixing & Loading	Protected body Protected hands				

Aclonifen					
Model data	Level of PPE	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Reaching, picking (all expect Brassica)) Buffer strip: 5 m; Drift reduction: 50%					
Application rate: 1.8 kg of aclonifen a.s./ha (3L of AKO 600 SC/ha)				Application rate: 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600 SC/ha)	
OPEX Model (75 th percentile) Body weight: 60 kg	None	0.6 0.06 0.06	852 87.4 87.4	0.04 0.04	59.7 59.7
	Application	Protected body Protected hands 0.02 0.002 0.002	29.6 2.5 2.5	0.001 0.001	1.8 1.8
	Mixing & Loading	Protected body Protected hands			
Aclonifen					
Model data	Level of PPE	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low ornamentals (Re-entry activity: Inspection, irrigation (All)) Buffer strip: 5 m; Drift reduction: 50%					
Application rate: 1.5 kg of aclonifen a.s./ha (2.5L of AKO 600 SC/ha)				Application rate: 1.08 kg of aclonifen a.s./ha (1.8L of AKO 600 SC/ha)	
OPEX Model (75 th percentile) Body weight: 60 kg	None	0.5 0.05 0.05	739 74.3 74.3	0.04 0.04	55.6 55.6
	Application	Protected body Protected hands 0.02 0.002 0.002	25.4 2.2 2.2	0.001 0.001	1.7 1.7
	Mixing & Loading	Protected body Protected hands			
Aclonifen					
Model data	Level of PPE	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low ornamentals (Re-entry activity: Cutting, sorting, bunding, carrying) Buffer strip: 5 m; Drift reduction: 50%					
Application rate: 1.5 kg of aclonifen a.s./ha (2.5L of AKO 600 SC/ha)				Application rate: 1.08 kg of aclonifen a.s./ha (1.8L of AKO 600 SC/ha)	
OPEX Model	None	0.5 0.05 0.05	739 74.3 74.3	0.04 0.04	55.6 55.6

(75 th percentile) Body weight: 60 kg	Application	Protected body Protected hands	0.02-0.002 0.002	25.4-2.2-2.2	0.001-0.001	1.7-1.7
	Mixing & Loading	Protected body Protected hands				
Aclonifen						
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to high ornamentals (Re-entry activity: Inspection, irrigation (All)) Buffer strip: 5 m; Drift reduction: 50%						
Application rate: 1.8 kg of aclonifen a.s./ha (3L of AKO 600 SC/ha)					Application rate: 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600SC/ha)	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.7-0.1-0.1	1030-167-167	0.08-0.08	109-109
	Application	Protected body Protected hands	0.01-0.001 0.001	14.7-2.1-2.1	0.001-0.001	1.5-1.5
	Mixing & Loading	Protected body Protected hands				
Aclonifen						
Model data	Level of PPE		Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to high ornamentals (Re-entry activity: Cutting, sorting, bunding, carrying)) Buffer strip: 5 m; Drift reduction: 50%						
Application rate: 1.8 kg of aclonifen a.s./ha (3L of AKO 600 SC/ha)					Application rate: 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600SC/ha)	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.7-0.1-0.1	1030-167-167	0.08-0.08	109-109
	Application	Protected body Protected hands	0.01-0.001 0.001	14.7-2.1-2.1	0.001-0.001	1.5-1.5
	Mixing & Loading	Protected body Protected hands				

Table 6.6-3.1: Estimated operator exposure – Combine exposure of a mixture AKO 600 SC and BOA PRO 480 EC

			Aclonifen		Clomazone	
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
			Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Inspection, irrigation (All)) Application rate: 1.2 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%		Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Inspection, irrigation (All)) Application rate: 0.096 kg of clomazone a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.4 0.04–0.04	622 61–61	0.2–0.1	117–110
	Application	Protected body Protected hands	0.01 0.001–0.001	21 1.8–1.8	0.003	3–2
	Mixing & Loading	Protected body Protected hands				
			Aclonifen		Clomazone	
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
			Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Reaching, picking (all except Brassica)) Application rate: 1.2 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%		Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Reaching, picking (all except Brassica)) Application rate: 0.096 kg of clomazone a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.4 0.04–0.04	622 61–61	0.2–0.1	117–110
	Application	Protected body Protected hands	0.01 0.001–0.001	21 1.8–1.8	0.003	3–2
	Mixing & Loading	Protected body Protected hands				
			Aclonifen		Clomazone	
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
			Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Inspection, irrigation (All)) Application rate: 0.48 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%		Vehicle-mounted downward spraying application outdoors to low vegetables (Re-entry activity: Inspection, irrigation (All)) Application rate: 0.096 kg of clomazone a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
OPEX Model (75 th percentile)	None		0.2 0.02–0.02	310 27.6–27.6	0.2–0.1	117–110
	Application	Protected	< 0.01 0.0007	10 1–1	0.003	3–2

Body weight: 60 kg		body Protected hands	0.0007			
	Mixing & Loading	Protected body Protected hands				
			Aclonifen		Clomazone	
Model data	Level of PPE		Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
			Vehicle mounted downward spraying application outdoors to low vegetables (Re-entry activity: Reaching, picking (all expect Brassica)) Application rate: 0.48 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%		Vehicle mounted downward spraying application outdoors to low vegetables (Re-entry activity: Reaching, picking (all expect Brassica))Application rate: 0.096 kg of clomazone a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
OPEX Model (75 th percentile) Body weight: 60 kg	None		0.2 0.02 0.02	310 27.6 27.6	0.2 0.1	117 110
	Application	Protected body Protected hands	< 0.01 0.0007 0.0007	10 1 1	0.003	3 2
	Mixing & Loading	Protected body Protected hands				

6.6.3 Measurement of operator exposure

Since the operator exposure estimations carried out indicated that the acceptable operator exposure level (AOEL) will not be exceeded under conditions of intended uses and considering above mentioned personal protective equipment (PPE), a study to provide measurements of operator exposure was not necessary and was therefore not performed.

Comments of zRMS study comment 6.6.2	The applicant provided exposure assessment for operator using EFSA online calculator v 1.1.1. (OPEX) and Field Crops, Low Vegetables, Low Ornamentals and High Ornamentals scenarios.			
	According to B0 GAP AKO 600 SC is a pre-emergence herbicide (BBCH 01-09 potato and BBCH 01-08 other crops), max. application rate is 2 l/ha (1.2 kg as/ha). According to product label AKO 600 SC should be applied not later than a week before crop emergence. Thus the evaluator has revised operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). As a worst case the highest concentration for in-use dilution has been applied (use 5-19 in Table 6.1-4 B0 GAP).			
	Table 6.6-3. Estimated operator exposure			
	Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
	Bare arable land/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile Crop density: Normal			

	Aclonifen	Number of applications and application rate: 1 x 1.2 kg a.s./ha				
		Dermal absorption (concentrate): 0.49 %				
		Dermal absorption (in-use dilution): 35 %				
		M/L: Workwear		0.06	91.1	
	App: Workwear					
	Short term					
			Systemic exposure (mg a.s./day)			
Mixing & Loading	Application	ML	App	Total	Total systemic exposure per kg body weight (mg/kg bw per day)	% AOEL
		0.9	4.9	5.9	0.1	140
		0.6	3.2	3.8	0.06	91.1

agreed endpoints 6.6.2	According to EFSA OPEX calculations, it can be concluded that the risk of operator exposure during mixing & loading and application of AKO 600 SC using the tractor-mounted on field is acceptable under conditions of intended use with PPE (workwear and gloves during mixing/loading and application). In addition due to the fact that the product and in-use dilution is classified as Skin Sens.1, H317 the operator should wear gloves and face protection during mixing/loading and application.
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6.6.4 Worker exposure (KCP 7.2.3)

6.6.4.1 Estimation of worker exposure

Table 6.6-4 shows the exposure model(s) used for estimation of worker exposure after entry into a previously treated area or handling a crop treated with AKO 600 SC according to the critical use(s). Outcome of the estimation is presented in Table 6.6-5. Detailed calculations are in Appendix 3.

Table 6.6-4: Exposure models for intended uses

Critical use(s)	Field Crops (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 0.8 2.0L of AKO 600 SC/ha + 0.2L of BOA PRO 480 EC/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Ornamentals (max. 2.5L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	High Ornamentals (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023

Table 6.6-5.1: Estimated worker exposure –field crops (critical use: 3.0L of product/ha; Re-entry activity: inspection, irrigation)

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.8 kg of aclonifen a.s./ha (3L of AKO 600SC/ha)		1 x 1.17 kg of aclonifen a.s./ha (1.95L of AK600 SC/ha)	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	1.1 0.8 0.8	1607 1125 1125	0.5 0.5	731 731
	Arms, body, legs covered	0.1 0.09 0.09	180 128 126	0.06 0.06	81.9 0.06
	Hands, arms, body, legs covered	0.1 0.08 0.08	161 113 113	0.05 0.05	73.1 73.1
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.2: Estimated worker exposure –low vegetables (critical use: 3.0L of product/ha; Re-entry activity: inspection, irrigation (all))

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.8 kg of aclonifen a.s./ha (3L of AKO 600SC/ha)		1 x 1.17 kg of aclonifen a.s./ha (1.95L of AK600 SC/ha)	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	1.1 0.8 0.8	1607 1125 1125	0.5 0.5	731 731
	Arms, body, legs covered	0.1 0.09 0.09	180 128 126	0.06 0.06	81.9 0.06
	Hands, arms, body, legs covered	0.1 0.08 0.08	161 113 113	0.05 0.05	73.1 73.1
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.2.1: Estimated worker exposure – low vegetables (critical use: 3.0L of product/ha; Re-entry activity: reaching, picking (all except Brassica))

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.8 kg of aclonifen a.s./ha (3L of AKO 600SC/ha)		1 x 1.17 kg of aclonifen a.s./ha (1.95L of AK600 SC/ha)	
8 hours/day ⁽¹⁾ ; TC (potential): 5800 cm ² /h TC (workwear – arms, body and legs covered): 2500 cm ² /h TC (workwear – arms, body and legs covered and gloves): 580 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	2.1 1.5 1.5	2983 2088 2088	1.1	1357 1357
	Arms, body, legs covered	0.9 0.6 0.6	1286 900 900	0.4 0.4	585 585
	Hands, arms, body, legs covered	0.2 0.1 0.1	298 209 209	0.1 0.1	136 136
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.4: Estimated worker exposure – low ornamentals (critical use: 2.5L of product/ha; Re-entry activity: inspection, irrigation (all))

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.5 kg of aclonifen a.s./ha (2.5L of AKO 600SC/ha)		1 x 1.08 kg of aclonifen a.s./ha (1.8L of AKO 600SC/ha)	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	0.9 0.7 0.7	1339 938 938	0.5 0.5	675 675
	Arms, body, legs covered	0.1 0.07 0.07	150 105 105	0.05 0.05	75.6 75.6
	Hands, arms, body, legs covered	0.09 0.07 0.07	134 93.8 93.8	0.005 0.005	67.5 67.5
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.4.1: Estimated worker exposure – low ornamentals (critical use: 2.5L of product/ha; Re-entry activity: cutting, sorting, bundling, carrying)

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.5 kg of aclonifen a.s./ha (2.5L of AKO 600SC/ha)		1 x 1.08 kg of aclonifen a.s./ha (1.8L of AKO 600SC/ha)	
8 hours/day ⁽¹⁾ ; TC (potential): 14000 cm ² /h TC (workwear – arms, body and legs covered): 5000 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1400 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	4.2 2.9 2.9	6000 4200 4200	2.1 2.1	3024 3024
	Arms, body, legs covered	1.5 1.1 1.1	2143 1500 1500	0.8 0.8	1080 1080
	Hands, arms, body, legs covered	0.4 0.3 0.3	600 420 420	0.2 0.2	302 302
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.5: Estimated worker exposure – high ornamentals (critical use: 3L of product/ha; Re-entry activity: inspection, irrigation (all))

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.8 kg of aclonifen a.s./ha (3L of AKO 600SC/ha)		1 x 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600SC/ha)	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	1.1 0.8 0.8	1607 1125 1125	0.5 0.5	731 731
	Arms, body, legs covered	0.1 0.09 0.09	180 126 126	0.06 0.06	81.9 81.9
	Hands, arms, body, legs covered	0.1 0.08 0.08	161 113 113	0.05 0.05	73.1 73.1
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
- (2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Transfer coefficient

Table 6.6-5.5.1: Estimated worker exposure – high ornamentals (critical use: 3L of product/ha; Re-entry activity: cutting, sorting, bundling, carrying)

		Aclonifen			
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.8 kg of aclonifen a.s./ha (3L of AKO 600SC/ha)		1 x 1.17 kg of aclonifen a.s./ha (1.95L of AKO 600SC/ha)	
8 hours/day ⁽¹⁾ ; TC (potential): 14000 cm ² /h TC (workwear – arms, body and legs covered): 5000 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1400 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	5 3.2 3.2	7200 4500 4500	2 2	2925 2925
	Arms, body, legs covered	1.8 0.4 0.4	2571 504 504	0.2 0.2	328 328
	Hands, arms, body, legs covered	0.5 0.3 0.3	720 450 450	0.2 0.2	293 293
	Hands covered, no workwear	n/a n/a	n/a n/a	n/a n/a	n/a n/a

- (1) e.g. 8 h/day for professional applications for harvesting, pruning, tying, thinning or weeding activities etc. or 2 h/day for professional applications for maintenance, inspection or irrigation activities etc.
(2) e.g. EUROPOEM II, 2002, Post-Application Exposure of Workers to Pesticides in Agriculture or US-EPA policy paper [EPA, Science Advisory Council for Exposure; Agricultural Transfer Coefficients, Policy # 3.]. TC: Transfer coefficient

Table 6.6-5.6: Estimated worker exposure – low vegetables (critical use: mixture of 2.0 L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/h; Re-entry activity: inspection, irrigation (all))

		Aclonifen		Clomazone	
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.2 kg of aclonifen a.s./ha		1 x 0.096 kg of clomazone a.s./ha	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	0.8 0.6 0.5	1071 753 750	0.08 0.08e	63.2 63.2
	Arms, body, legs covered	0.08 0.06 0.06	120 85.8 84	0.009 0.009	7.1 7.1
	Hands, arms, body, legs covered	0.08 0.05 0.05	107 75.71 75	0.008 0.008	6.3 6.3
	Hands covered, no workwear	-	-	-	-

Table 6.6-5.6.1: Estimated worker exposure – low vegetables (critical use: mixture of 2.0 L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/h; Re-entry activity: reaching, picking (all except Brassica)))

		Aclonifen		Clomazone	
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 1.2 kg of aclonifen a.s./ha		1 x 0.096 kg of clomazone a.s./ha	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm²/h TC (workwear – arms, body and legs covered): 1400 cm²/h TC (workwear – arms, body and legs covered and gloves): 1250 cm²/h ⁽²⁾ Body weight: 60 kg	Potential exposure	1.4 1.1	1989 1392 1392	0.2 0.2	117 117
	Arms, body, legs covered	0.6 0.4 0.4	857 600 600	0.07 0.07	50.5 50.5
	Hands, arms, body, legs covered	0.1 0.1 0.1	199 139 139	0.02 0.02	11.7 11.7
	Hands covered, no workwear	!	!	!	!

Table 6.6-5.6.2: Estimated worker exposure – low vegetables (critical use: mixture of 0.8 L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/h; Re-entry activity: inspection, irrigation (all))

		Aclonifen		Clomazone	
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 0.48 kg of aclonifen a.s./ha		1 x 0.096 kg of clomazone a.s./ha	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	0.3 0.2 0.2	429 304 300	0.08 0.08e	63.2 63.2
	Arms, body, legs covered	0.03 0.02 0.02	48 34.6 33.6	0.009 0.009	7.1 7.1
	Hands, arms, body, legs covered	0.03 0.02 0.02	42.9 30 30	0.008 0.008	6.3 6.3
	Hands covered, no workwear	-	-	-	-

Table 6.6-5.6.3: Estimated worker exposure – low vegetables (critical use: mixture of 0.8 L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/h; Re-entry activity: reaching, picking (all except Brassica)))

		Aclonifen		Clomazone	
Model data	Level of PPE	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Number of applications and application rate:		1 x 0.48 kg of aclonifen a.s./ha		1 x 0.096 kg of clomazone a.s./ha	
2 hours/day ⁽¹⁾ ; TC (potential): 12500 cm ² /h TC (workwear – arms, body and legs covered): 1400 cm ² /h TC (workwear – arms, body and legs covered and gloves): 1250 cm ² /h ⁽²⁾ Body weight: 60 kg	Potential exposure	0.6 0.4 0.4	795 557 557	0.2 0.2	117 117
	Arms, body, legs covered	0.2 0.2 0.2	343 240 240	0.07 0.07	50.5 50.5
	Hands, arms, body, legs covered	0.06 0.04 0.04	79.5 55.7 55.7	0.02 0.02	11.7 11.7
	Hands covered, no workwear	-	-	-	-

6.6.4.2 Refinement of generic DFR value (KCP 7.2)

No data on Dislodgeable foliar residue (DFR) refinement are available, therefore reference is made to the default value of 3 µg/cm² of foliage/kg a.s. applied/ha as indicated in the Guidance on the assessment of exposure of operators, workers, residents and bystanders in risk assessment for plant protection products (EFSA Journal 2014;12(10):3874)

6.6.4.3 Measurement of worker exposure

Since the operator exposure estimations carried out indicated that the acceptable operator exposure level (AOEL) will not be exceeded under conditions of intended uses and considering above mentioned personal protective equipment (PPE), a study to provide measurements of operator exposure was not necessary and was therefore not performed.

According to estimations performed using EFSA OPEX, worker exposure exceeds acceptable AOEL. Therefore, additional risk mitigation is required. The risk is acceptable if worker will re-entry treated area with presented below number of days for each group of crops what is in line with agronomical practice:

Maximum doses of AKO 600 SC:

- 6 days interval between inspecting / irrigating field crops
- 6 days interval between inspecting / irrigating low vegetables
- 32 days interval between reaching / picking low vegetables
- 6 days interval between inspecting / irrigating high ornamentals
- 71-66 days interval between cutting / sorting / bundling / carrying high ornamentals
- 63 days interval between cutting / sorting / bundling / carrying low ornamentals

Low doses of AKO 600 SC:

- 14 days interval between reaching / picking low vegetables
- 52 days interval between cutting / sorting / bundling / carrying high ornamentals
- 48 days interval between cutting / sorting / bundling / carrying low ornamentals

Additionally, each worker action requires using PPE.

Comments of study comment 6.6.4	The applicant provided exposure assessment for worker using EFSA online calculator v 1.1.1. (OPEX) and Field Crops, Low Vegetables, Low Ornamentals and High Ornamentals scenarios. According to B0 GAP AKO 600 SC is a pre-emergence herbicide (BBCH 01-09 potato and BBCH 01-08 other crops), max. application rate is 2 l/ha (1.2 kg as/ha). According to product label AKO 600 SC should be applied not later than a week before crop emergence. Thus the evaluator has revised operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). As a worst case the highest concentration for in-use dilution has been applied (use 5-19 in B0 GAP Table 6.1-4). There will be no crop growing on the field at the time of application. Therefore, it is not necessary to perform any re-entry activities shortly after application. Inspection without contact with treated soil scenario has been applied for worker exposure assessment.
agreed endpoints 6.6.4	According to EFSA OPEX calculations, it can be concluded that the risk of worker exposure following application of AKO 600 SC on bare soil is not relevant.

6.6.5 Bystander and resident exposure (KCP 7.2.2)

6.6.5.1 Estimation of bystander and resident exposure

Table 6.6-6 shows the exposure model(s) used for estimation of bystander and resident exposure to aclofen. Outcome of the estimation is presented in Table 6.6-7. Detailed calculations are in Appendix 3.

Table 6.6-6: Exposure models for intended uses

Critical use(s)	Field Crops (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Vegetables (max. 0.8 – 2.0L of AKO 600 SC/ha + 0.2L of BOA PRO 480 EC/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	Low Ornamentals (max. 2.5L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023
Critical use(s)	High Ornamentals (max. 3.0L of product/ha)
Model(s)	"OPEX model" version 1.1.1 opex 1.0.1/2 publication date: 1.07.2023

Table 6.6-7.1: Estimated bystander and resident exposure –field crops (critical use: 3.0L of product/ha; Re-entry activity: inspection, irrigation)

Aclonifen				
Model data	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL	Total absorbed dose (mg/kg bw/day)	% of systemic AOEL
Vehicle mounted downward spraying application outdoors to field crops				
Application rate: 1.8 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.17 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03-0.004 0.005 Vapour: 0.0003-0.0003 0.0003 Surface deposits: 0.006 0.0005-0.0009 Entry into treated crops: 0.08-0.06-0.06 All Pathways (mean): 0.09-0.05-0.05	Spray drift: 41.3-6.2 7.4 Vapour: 0.4-0.4-0.4 Surface deposits: 8.8 0.7-1.3 Entry into treated crops: 121-84.4-84.4 All Pathways (mean): 122-71.6-72.3	Spray drift: 0.003-0.003 Vapour: 0.0003-0.003 Surface deposits: 0.0003 0.0006 Entry into treated crops: 0.04-0.04 All Pathways (mean): 0.03-0.03	Spray drift: 4-4.8 Vapour: 0.4-0.4 Surface deposits: 0.5 0.8 Entry into treated crops: 54.8-54.8 All Pathways (mean): 46.7-47.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.1-0.02 0.03 Vapour: 0.0008-0.0008 0.0008 Surface deposits: 0.01 0.001-0.002 Entry into treated crops: 0.2-0.1-0.1 All Pathways (mean): 0.2-0.1-0.1	Spray drift: 174-33.3 40.7 Vapour: 1.1-1.1-1.1 Surface deposits: 20.8 1.8-3.1 Entry into treated crops: 217-152-152 All Pathways (mean): 284-142-147	Spray drift: 0.02-0.02 Vapour: 0.0008-0.0008 Surface deposits: 0.0008 0.001 Entry into treated crops: 0.07-0.07 All Pathways (mean): 0.06-0.07	Spray drift: 21.6 26.4 Vapour: 1.1-1.1 Surface deposits: 1.1 2 Entry into treated crops: 98.7-98.7 All Pathways (mean): 92.8-95.9
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystanders, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.2: Estimated bystander and resident exposure –low vegetables (critical use: 3.0L of product/ha; Re-entry activity: inspection, irrigation (all))

Aclonifen				
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle mounted downward spraying application outdoors to low vegetables				
Application rate: 1.8 kg of aclonifen a.s./ha			Application rate: 1.17 kg of aclonifen	

Buffer strip: 5 m; Drift reduction: 50%			a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03 0.004-0.005 Vapour: 0.0003 0.0003-0.0003 Surface deposits: 0.006-0.0005 0.0009 Entry into treated crops: 0.08-0.06 0.06 All Pathways (mean): 0.09-0.05 0.05	Spray drift: 41.3 6.2-7.4 Vapour: 0.4-0.4 0.4 Surface deposits: 8.8-0.7-1.3 Entry into treated crops: 121-84.4 84.4 All Pathways (mean): 122-71.6 72.3	Spray drift: 0.003 0.003 Vapour: 0.0003 0.003 Surface deposits: 0.0003-0.0006 Entry into treated crops: 0.04-0.04 All Pathways (mean): 0.03-0.03	Spray drift: 4-4.8 Vapour: 0.4-0.4 Surface deposits: 0.5-0.8 Entry into treated crops: 54.8-54.8 All Pathways (mean): 46.7-47.2
Residents (children) Drift rate: 2-3m Body weight: 1 kg	Spray drift: 0.1 0.02-0.03 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.001-0.002 Entry into treated crops: 0.2-0.1-0.1 All Pathways (mean): 0.2-0.1-0.1	Spray drift: 174 33.3-40.7 Vapour: 1.1-1.1 1.1 Surface deposits: 20.8-1.8-3.1 Entry into treated crops: 217-152 152 All Pathways (mean): 284-142 147	Spray drift: 0.02 0.02 Vapour: 0.0008 0.0008 Surface deposits: 0.0008-0.001 Entry into treated crops: 0.07-0.07 All Pathways (mean): 0.06-0.07	Spray drift: 21.6 26.4 Vapour: 1.1-1.1 Surface deposits: 1.1-2 Entry into treated crops: 98.7-98.7 All Pathways (mean): 92.8-95.9
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*

* No specific results for bystanders, AAoEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.2.1: Estimated bystander and resident exposure – low vegetables (critical use: 3.0L of product/ha; Re-entry activity: Reaching, picking (all except Brassica))

Aclonifen				
Model data	Total absorbed dose (mg/kg dw/day)	% of systemic AOEL	Total absorbed dose (mg/kg dw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low vegetables				
Application rate: 1.8 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.8 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03 0.004-0.005 Vapour: 0.0003 0.0003-0.0003 Surface deposits:	Spray drift: 41.3 6.2-7.4 Vapour: 0.4-0.4 0.4 Surface deposits:	Spray drift: 0.003 0.003 Vapour: 0.0003 0.003 Surface deposits:	Spray drift: 4-4.8 Vapour: 0.4-0.4 Surface deposits: 0.5-0.8 Entry into treated

	0.006-0.0005 0.0009 Entry into treated erops: 0.08-0.06 0.06 All Pathways (mean): 0.09-0.05 0.05	8.8-0.7-1.3 Entry into treated erops: 121-84.4 84.4 All Pathways (mean): 122-71.6 72.3	0.0003-0.0006 Entry into treated erops: 0.04-0.04 All Pathways (mean): 0.03-0.03	erops: 54.8-54.8 All Pathways (mean): 46.7-47.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.1 0.02-0.03 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.001-0.002 Entry into treated erops: 0.2-0.1-0.1 All Pathways (mean): 0.2-0.1-0.1	Spray drift: 174 33.3-40.7 Vapour: 1.1-1.1 1.1 Surface deposits: 20.8-1.8-3.1 Entry into treated erops: 217-152 152 All Pathways (mean): 284-142 147	Spray drift: 0.02 0.02 Vapour: 0.0008 0.0008 Surface deposits: 0.0008-0.001 Entry into treated erops: 0.07-0.07 All Pathways (mean): 0.06-0.07	Spray drift: 21.6 26.4 Vapour: 1.1-1.1 Surface deposits: 1.1-2 Entry into treated erops: 98.7-98.7 All Pathways (mean): 92.8-95.9
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystanders, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.3: Estimated bystander and resident exposure – low ornamentals (critical use: 2.5L of product/ha; Re-entry activity: inspection, irrigation)

Aclonifen				
Model data	Total absorbed dose (mg/kg dw/day)	% of systemic AOEL	Total absorbed dose (mg/kg dw/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low ornamentals				
Application rate: 1.5 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.08 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03 0.005-0.006 Vapour: 0.0003 0.0003-0.0003 Surface deposits: 0.005-0.0004 0.0007 Entry into treated erops: 0.07-0.05 0.05 All Pathways (mean): 0.08-0.04 0.04	Spray drift: 45.9 6.8-8.2 Vapour: 0.4-0.4 0.4 Surface deposits: 7.3-0.6-1 Entry into treated erops: 100.4-70.3 70.3 All Pathways (mean): 107-60.7 61.4	Spray drift: 0.003 0.004 Vapour: 0.0003 0.0003 Surface deposits: 0.0003-0.0005 Entry into treated erops: 0.04-0.04 All Pathways (mean): 0.03-0.04	Spray drift: 4.9-5.9 Vapour: 0.4-0.4 Surface deposits: 0.4-0.8 Entry into treated erops: 50.6-50.6 All Pathways (mean): 43.8-44.3

Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.1 0.03-0.03 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.001-0.002 Entry into treated crops: 0.1-0.09 0.09 All Pathways (mean): 0.2-0.09 0.09	Spray drift: 194-37 45.2 Vapour: 1.1-1.1 1.1 Surface deposits: 17.3-1.5-2.6 Entry into treated crops: 181-127 127 All Pathways (mean): 264-124 129	Spray drift: 0.02 0.02 Vapour: 0.0008 0.0008 Surface deposits: 0.0007-0.001 Entry into treated crops: 0.06-0.06 All Pathways (mean): 0.06-0.07	Spray drift: 26.6 32.5 Vapour: 1.1-1.1 Surface deposits: 1.1-1.9 Entry into treated crops: 91.1-91.1 All Pathways (mean): 89.4-93
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystanders, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.3.1: Estimated bystander and resident exposure – low ornamentals (critical use: 2.5L of product/ha; Re-entry activity: cutting, sorting, bundling, carrying)

Aclonifen				
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle mounted downward spraying application outdoors to low ornamentals				
Application rate: 1.5 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.08 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03 0.005-0.006 Vapour: 0.0003 0.0003-0.0003 Surface deposits: 0.005-0.0004 0.0007 Entry into treated crops: 0.07-0.05 0.05 All Pathways (mean): 0.08-0.04 0.04	Spray drift: 45.9 6.8-8.2 Vapour: 0.4-0.4 0.4 Surface deposits: 7.3-0.6-1 0.6-1 Entry into treated crops: 100.4-70.3 70.3 All Pathways (mean): 107-60.7 61.4	Spray drift: 0.003 0.004 Vapour: 0.0003 0.0003 Surface deposits: 0.0003-0.0005 0.0003 Entry into treated crops: 0.04-0.04 0.04 All Pathways (mean): 0.03-0.04	Spray drift: 4.9-5.9 5.9 Vapour: 0.4-0.4 0.4 Surface deposits: 0.4-0.8 0.8 Entry into treated crops: 50.6-50.6 50.6 All Pathways (mean): 43.8-44.3
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.1 0.03-0.03 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.001-0.002 Entry into treated crops: 0.1-0.09 0.09 All Pathways (mean): 0.2-0.09 0.09	Spray drift: 194-37 45.2 Vapour: 1.1-1.1 1.1 Surface deposits: 17.3-1.5-2.6 Entry into treated crops: 181-127 127 All Pathways (mean): 264-124 129	Spray drift: 0.02 0.02 Vapour: 0.0008 0.0008 Surface deposits: 0.0007-0.001 Entry into treated crops: 0.06-0.06 All Pathways (mean): 0.06-0.07	Spray drift: 26.6 32.5 Vapour: 1.1-1.1 Surface deposits: 1.1-1.9 Entry into treated crops: 91.1-91.1 All Pathways (mean): 89.4-93

	All Pathways (mean): 0.2 0.09 0.09	All Pathways (mean): 264 124 129	(mean): 0.06 0.07	
Bystanders (adult) Drift rate: 2 3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2 3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystanders, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6 7.4: Estimated bystander and resident exposure – high ornamentals (critical use: 3.0L of product/ha; Re-entry activity: inspection, irrigation)

Aclonifen				
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to high ornamentals				
Application rate: 1.8 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.17 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2 3m Body weight: 60 kg	Spray drift: 0.03 0.004 0.005 Vapour: 0.0003 0.0003 0.0003 Surface deposits: 0.006 0.0005 0.0009 Entry into treated crops: 0.08 0.06 0.06 All Pathways (mean): 0.09 0.05 0.05	Spray drift: 41.3 6.2 7.4 Vapour: 0.4 0.4 0.4 Surface deposits: 8.8 0.7 1.3 Entry into treated crops: 121 84.4 84.4 All Pathways (mean): 122 71.6 72.3	Spray drift: 0.003 0.003 Vapour: 0.0003 0.003 Surface deposits: 0.0003 0.0006 Entry into treated crops: 0.04 0.04 All Pathways (mean): 0.03 0.03	Spray drift: 4 4.8 Vapour: 0.4 0.4 Surface deposits: 0.5 0.8 Entry into treated crops: 54.8 54.8 All Pathways (mean): 46.7 47.2
Residents (children) Drift rate: 2 3m Body weight: 10 kg	Spray drift: 0.1 0.02 0.03 Vapour: 0.0008 0.0008 0.0008 Surface deposits: 0.01 0.001 0.002 Entry into treated crops: 0.2 0.1 0.1 All Pathways (mean): 0.2 0.1 0.1	Spray drift: 174 33.3 40.7 Vapour: 1.1 1.1 1.1 Surface deposits: 20.8 1.8 3.1 Entry into treated crops: 217 152 152 All Pathways (mean): 284 142 147	Spray drift: 0.02 0.02 Vapour: 0.0008 0.0008 Surface deposits: 0.0008 0.001 Entry into treated crops: 0.07 0.07 All Pathways (mean): 0.06 0.07	Spray drift: 21.6 26.4 Vapour: 1.1 1.1 Surface deposits: 1.1 2 Entry into treated crops: 98.7 98.7 All Pathways (mean): 92.8 95.9
Bystanders (adult) Drift rate: 2 3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2 3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystandars, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.4.1: Estimated bystander and resident exposure – high ornamentals (critical use: 3.0L of product/ha; Re-entry activity: cutting, sorting, bunding, carrying)

Aclonifen				
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to high ornamentals				
Application rate: 1.8 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%			Application rate: 1.17 kg of aclonifen a.s./ha Buffer strip: 5 m; Drift reduction: 50%	
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.03-0.004 0.005 Vapour: 0.0003-0.0003 0.0003 Surface deposits: 0.006 0.0005-0.0009 Entry into treated crops: 0.08-0.06-0.06 All Pathways (mean): 0.09-0.05-0.05	Spray drift: 41.3-6.2 7.4 Vapour: 0.4-0.4-0.4 Surface deposits: 8.8 0.7-1.3 Entry into treated crops: 121-84.4-84.4 All Pathways (mean): 122-71.6-72.3	Spray drift: 0.003-0.003 Vapour: 0.0003-0.003 Surface deposits: 0.0003-0.0006 Entry into treated crops: 0.04-0.04 All Pathways (mean): 0.03-0.03	Spray drift: 4-4.8 Vapour: 0.4-0.4 Surface deposits: 0.5-0.8 Entry into treated crops: 54.8-54.8 All Pathways (mean): 46.7-47.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.1-0.02 0.03 Vapour: 0.0008-0.0008 0.0008 Surface deposits: 0.01 0.001-0.002 Entry into treated crops: 0.2-0.1-0.1 All Pathways (mean): 0.2-0.1-0.1	Spray drift: 174-33.3 40.7 Vapour: 1.1-1.1-1.1 Surface deposits: 20.8 1.8-3.1 Entry into treated crops: 217-152-152 All Pathways (mean): 284-142-147	Spray drift: 0.02-0.02 Vapour: 0.0008-0.0008 Surface deposits: 0.0008-0.001 Entry into treated crops: 0.07-0.07 All Pathways (mean): 0.06-0.07	Spray drift: 21.6-26.4 Vapour: 1.1-1.1 Surface deposits: 1.1-2 Entry into treated crops: 98.7-98.7 All Pathways (mean): 92.8-95.9
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystandars, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6 7.5: Estimated bystander and resident exposure – low vegetables (critical use: mixture of 2.0L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/ha; Re-entry activity: inspection, irrigation (all))

Aclonifen			Clomazone	
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low vegetables Application rate: 1.2 kg of aclonifen a.s./ha and 0.096 kg of clomazone/ha Buffer strip: 5 m; Drift reduction: 50%				
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.02 0.003-0.003 Vapour: 0.0003 0.0003-0.0003 Surface deposits: 0.004-0.003 0.0006 Entry into treated crops: 0.06-0.04 0.04 All Pathways (mean): 0.06-0.03 0.03	Spray drift: 27.5-4.1 4.9 Vapour: 0.4-0.4-0.4 Surface deposits: 5.8 0.4-0.8 Entry into treated crops: 80.4-56.3-56.3 All Pathways (mean): 81.6-47.9 48.4	Spray drift: 0.0006 Vapour: 0.0003 Surface deposits: 0.00009 Entry into treated crops: 0.006 All Pathways (mean): 0.006	Spray drift: 0.4 Vapour: 0.2 Surface deposits: 0.07 Entry into treated crops: 4.7 All Pathways (mean): 4.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.08 0.02-0.02 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.0008-0.001 Entry into treated crops: 0.1-0.07 0.07 All Pathways (mean): 0.1-0.07 0.07	Spray drift: 116-22.2 27.1 Vapour: 1.1-1.1-1.1 Surface deposits: 13.9-1.2-2.1 Entry into treated crops: 145-101-101 All Pathways (mean): 190-95.1 98.3	Spray drift: 0.003 Vapour: 0.0008 Surface deposits: 0.0002 Entry into treated crops: 0.01 All Pathways (mean): 0.01	Spray drift: 2.3 Vapour: 0.6 Surface deposits: 0.2 Entry into treated crops: 8.5 All Pathways (mean): 8.8
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOL specified*	No AAOL specified*	No AAOL specified*	No AAOL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOL specified*	No AAOL specified*	No AAOL specified*	No AAOL specified*

* No specific results for bystanders, AAOL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6 7.5.1: Estimated bystander and resident exposure – low vegetables (critical use: mixture of 2.0L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC Re-entry activity: Reaching, picking (all expect Brassica)))

Aclonifen			Clomazone	
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle mounted downward spraying application outdoors to low vegetables Application rate: 1.2 kg of aclonifen a.s./ha and 0.096 kg of clomazone/ha Buffer strip: 5 m; Drift reduction: 50%				
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.02 0.003-0.003 Vapour: 0.0003 0.0003-0.0003 Surface deposits: 0.004-0.003 0.0006 Entry into treated crops: 0.06-0.04 0.04 All Pathways (mean): 0.06-0.03 0.03	Spray drift: 27.5 4.1-4.9 Vapour: 0.4-0.4-0.4 Surface deposits: 5.8-0.4-0.8 Entry into treated crops: 80.4-56.3 56.3 All Pathways (mean): 81.6-47.9 48.4	Spray drift: 0.0006 Vapour: 0.0003 Surface deposits: 0.00009 Entry into treated crops: 0.006 All Pathways (mean): 0.006	Spray drift: 0.4 Vapour: 0.2 Surface deposits: 0.07 Entry into treated crops: 4.7 All Pathways (mean): 4.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.08 0.02-0.02 Vapour: 0.0008 0.0008-0.0008 Surface deposits: 0.01-0.0008-0.001 Entry into treated crops: 0.1-0.07 0.07 All Pathways (mean): 0.1-0.07 0.07	Spray drift: 116 22.2-27.1 Vapour: 1.1-1.1-1.1 Surface deposits: 13.9-1.2-2.1 Entry into treated crops: 145-101-101 All Pathways (mean): 190-95.1 98.3	Spray drift: 0.003 Vapour: 0.0008 Surface deposits: 0.0002 Entry into treated crops: 0.01 All Pathways (mean): 0.01	Spray drift: 2.3 Vapour: 0.6 Surface deposits: 0.2 Entry into treated crops: 8.5 All Pathways (mean): 8.8
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AA-OEL specified*	No AA-OEL specified*	No AA-OEL specified*	No AA-OEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AA-OEL specified*	No AA-OEL specified*	No AA-OEL specified*	No AA-OEL specified*

Table 6.6 7.5.2: Estimated bystander and resident exposure – low vegetables (critical use: mixture of 0.8L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC/ha; Re-entry activity: inspection, irrigation (all))

Aclonifen			Clomazone	
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle mounted downward spraying application outdoors to low vegetables				

Application rate: 0.48 kg of aclonifen a.s./ha and 0.096 kg of clomazone/ha Buffer strip: 5 m; Drift reduction: 50%				
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.008-0.001 0.001 Vapour: 0.0003-0.0003 0.0003 Surface deposits: 0.002 0.0001-0.0002 Entry into treated crops: 0.02-0.02-0.02 All Pathways (mean): 0.02-0.01-0.01	Spray drift: 11-1.6-2 2 Vapour: 0.4-0.4-0.4 0.4 Surface deposits: 2.3-0.2 0.4 Entry into treated crops: 32.1-22.5-22.5 All Pathways (mean): 32.9-19.3-19.6	Spray drift: 0.0006 Vapour: 0.0003 Surface deposits: 0.00009 Entry into treated crops: 0.006 All Pathways (mean): 0.006	Spray drift: 0.4 Vapour: 0.2 Surface deposits: 0.07 Entry into treated crops: 4.7 All Pathways (mean): 4.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.03-0.006 0.008 Vapour: 0.0008-0.0008 0.0008 Surface deposits: 0.004 0.0003-0.0006 Entry into treated crops: 0.04-0.03-0.03 All Pathways (mean): 0.05-0.03-0.03	Spray drift: 46.4-8.9 10.8 Vapour: 1.1-1.1-1.1 0.8 Surface deposits: 5.5-0.5 0.8 Entry into treated crops: 57.9-40.5-40.5 All Pathways (mean): 76.7-38.7-40	Spray drift: 0.003 Vapour: 0.0008 Surface deposits: 0.0002 Entry into treated crops: 0.01 All Pathways (mean): 0.01	Spray drift: 2.3 Vapour: 0.6 Surface deposits: 0.2 Entry into treated crops: 8.5 All Pathways (mean): 8.8
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*	No AAOEL specified*

* No specific results for bystanders, AAOEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

Table 6.6-7.5.1: Estimated bystander and resident exposure – low vegetables (critical use: mixture of 0.8L of AKO 600 SC/ha and 0.2L of BOA PRO 480 EC Re-entry activity: Reaching, picking (all except Brassica))

Aclonifen			Clomazone	
Model data	Total absorbed dose (mg/kg/day)	% of systemic AOEL	Total absorbed dose (mg/kg/day)	% of systemic AOEL
Vehicle-mounted downward spraying application outdoors to low vegetables Application rate: 0.48 kg of aclonifen a.s./ha and 0.096 kg of clomazone/ha Buffer strip: 5 m; Drift reduction: 50%				
Residents (adult) Drift rate: 2-3m Body weight: 60 kg	Spray drift: 0.008-0.001 0.001 Vapour: 0.0003-0.0003 0.0003 Surface deposits: 0.002 0.0001-0.0001 0.0002	Spray drift: 11-1.6-2 2 Vapour: 0.4-0.4-0.4 0.4 Surface deposits: 2.3-0.2-0.4 0.4 Entry into treated crops: 32.1-22.5	Spray drift: 0.0006 Vapour: 0.0003 Surface deposits: 0.00009 Entry into treated	Spray drift: 0.4 Vapour: 0.2 Surface deposits: 0.07 Entry into treated

	Entry into treated crops: 0.02 0.02 0.02 All Pathways (mean): 0.02 0.01 0.01	22.5 All Pathways (mean): 32.9 19.3 19.6	erops: 0.006 All Pathways (mean): 0.006	erops: 4.7 All Pathways (mean): 4.2
Residents (children) Drift rate: 2-3m Body weight: 10 kg	Spray drift: 0.03 0.006 0.008 Vapour: 0.0008 0.0008 0.0008 Surface deposits: 0.004 0.0003 0.0006 Entry into treated crops: 0.04 0.03 0.03 All Pathways (mean): 0.05 0.03 0.03	Spray drift: 46.4 8.9 10.8 Vapour: 1.1 1.1 1.1 Surface deposits: 5.5 0.5 0.8 Entry into treated crops: 57.9 40.5 40.5 All Pathways (mean): 76.7 38.7 40	Spray drift: 0.003 Vapour: 0.0008 Surface deposits: 0.0002 Entry into treated crops: 0.01 All Pathways (mean): 0.01	Spray drift: 2.3 Vapour: 0.6 Surface deposits: 0.2 Entry into treated crops: 8.5 All Pathways (mean): 8.8
Bystanders (adult) Drift rate: 2-3m Body weight: 60 kg	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*
Bystanders (children) Drift rate: 2-3m Body weight: 10 kg	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*	No AAoEL specified*

* No specific results for bystanders, AAoEL is not defined – bystanders exposure value is equal to results obtained for residents in that scenario

6.6.5.2 Measurement of bystander and/or resident exposure

Since the operator exposure estimations carried out indicated that the acceptable operator exposure level (AOEL) will not be exceeded under conditions of intended uses and considering above mentioned personal protective equipment (PPE), a study to provide measurements of resident and bystander exposure was not necessary and was therefore not performed.

For use 3 (tank mixture) The estimations performed according to EFSA OPEX indicate that the exposure to AKO 600 SC exceeds value of AOEL when product is used as intended at maximum proposed doses. Therefore, additional risk mitigation is required.

For use 3 (tank mixture) Resident and bystander exposure reduction, according to EFSA OPEX, application of AKO 600 SC should be carried out with 10-5 meters buffer strip and 50% nozzle drift reduction included for all doses.

Based on calculations, it can be concluded that the major part of the resident and bystander exposure results (only for maximum doses) from entering into treated crops (low doses are acceptable and AOEL is below 100% for each way of exposure). Thus, to reduce the estimated exposure it is proposed to install warning signs informing about recent use of PPP next to treated area and informing residents and bystanders about the schedule of spraying action.

Comments of zRMS study comment 6.6.5	The applicant provided exposure assessment for residents using EFSA online calculator v 1.1.1. (OPEX) and Field Crops, Low Vegetables, Low Ornamentals and High Ornamentals scenarios. According to B0 GAP AKO 600 SC is a pre-emergence herbicide (BBCH 01-09 potato
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	and BBCH 01-08 other crops), max. application rate is 2 l/ha (1.2 kg as/ha). According to product label AKO 600 SC should be applied not later than a week before crop emergence. Thus the evaluator has revised operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). As a worst case the highest concentration for in-use dilution has been applied (use 5 19 in B0 GAP Table 6.1-4). In addition the evaluator has revised operator exposure for Boa Pro 480 EC (clomazon 480 g/L) used in tank mixture (use 3 in Table 6.1- 4). Risk assessment of BOA PRO 480 EC is not a subject of this documents and was taken into account by the evaluator separately.																							
	<table><tr><th>Model data</th><th>Level of PPE</th><th>Total absorbed dose [mg/kg bw per day]</th><th>% of systemic AOEL</th></tr><tr><td colspan="4">Bare arable land/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile Crop density: Normal</td></tr><tr><td>Aclonifen</td><td colspan="3">Number of applications and application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %</td></tr><tr><td></td><td>Adults</td><td>0.01</td><td>15.4</td></tr><tr><td></td><td>Children</td><td>0.05</td><td>67.8</td></tr></table>				Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Bare arable land/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile Crop density: Normal				Aclonifen	Number of applications and application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %				Adults	0.01	15.4		Children	0.05	67.8
Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL																					
Bare arable land/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile Crop density: Normal																								
Aclonifen	Number of applications and application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %																							
	Adults	0.01	15.4																					
	Children	0.05	67.8																					
	Table 6.6-7.1: Estimated bystander and resident exposure																							
	Resident - Use 1: Bare arable land Aclonifen (% AOEL) Adults Children <table><tr><th>Spray drift</th><th>Vapour</th><th>Surface deposits</th><th>Entry into treated crops</th><th>All pathways (mean)</th><th>Spray drift</th><th>Vapour</th><th>Surface deposits</th><th>Entry into treated crops</th><th>All pathways (mean)</th></tr><tr><td>25.7</td><td>0.4</td><td>4.1</td><td>0.005</td><td>15.4</td><td>108</td><td>1.1</td><td>10.1</td><td>0.03</td><td>67.8</td></tr></table>				Spray drift	Vapour	Surface deposits	Entry into treated crops	All pathways (mean)	Spray drift	Vapour	Surface deposits	Entry into treated crops	All pathways (mean)	25.7	0.4	4.1	0.005	15.4	108	1.1	10.1	0.03	67.8
Spray drift	Vapour	Surface deposits	Entry into treated crops	All pathways (mean)	Spray drift	Vapour	Surface deposits	Entry into treated crops	All pathways (mean)															
25.7	0.4	4.1	0.005	15.4	108	1.1	10.1	0.03	67.8															
agreed endpoints 6.6.5	The exposure assessment for residents also covers bystander exposure. According to calculations, it can be concluded that there is no unacceptable risk to any resident (child and adult) and bystander after application AKO 600 SC. However, due to the fact that in-use dilution is classified as Skin Sens.1, H317 and since residents and bystanders cannot be protected by PPE, minimising the exposure towards spray drift is considered as available option for risk mitigation. Therefore, the use of 50% drift reducing technology is recommended. For use 3 (tank mixture AKO 600 SC + Boa Pro 480 EC) 50% drift reducing technology, 5 m buffer zone and warning signs informing about recent use of PPP next to treated field is recommended in order to reduce exposure to clomazone.																							

6.6.6 Combined exposure

The product may be used as a mixture of two active substances in two different agents.

Exposure assessment of clomazone is not the main purpose of this document, just verifying whether the proposed tank mixes are correct.

6.6.6.1 Exposure Assessment of aclonifen and clomazone in a mixture of AKO 600 SC and BOA PRO 480 EC

At the first tier, combined exposure is calculated as the sum of the component exposures without regard to the mode of action or mechanism/target of toxicity. Initially, the individual Hazard Quotients (HQ) are calculated for all active substances in the PPP by assessing the exposure according to appropriate models and dividing the individual exposure levels by the respective systemic AOEL. This is equivalent to the predicted exposure as % of systemic AOEL converted to decimal. The Hazard Index (HI) is the sum of the individual HQs.

Table 6.6.6-1: Acute operator risk assessment from combined exposure – AKO 600 SC and BOA PRO 480 EC

Application scenario	Active Ingredient	Estimated exposure / AOEL (HQ)	Required PPE
Operators Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: inspection, irrigation (all)	Aclonifen	0.21 0.018 0.018	
	Clomazone	0.03 0.03	
	Cumulative risk Operators (HI)	0.24 0.048 0.048	Protected body Protected hands
Operators Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: Reaching, picking (all except Brassica)	Aclonifen	0.21 0.018 0.018	
	Clomazone	0.03 0.03	
	Cumulative risk Operators (HI)	0.24 0.048 0.048	Protected body Protected hands
Operators Mixture of 0.8L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: inspection, irrigation (all)	Aclonifen	0.1 0.01 0.01	
	Clomazone	0.03 0.03	
	Cumulative risk Operators (HI)	0.13 0.04 0.04	Protected body Protected hands
Operators	Aclonifen	0.1 0.01 0.01	
	Clomazone	0.03 0.03	

Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC			
Re-entry activity: Reaching, picking (all expect Brassica)	Cumulative risk Operators (HI)	0.13 0.04 0.04	Protected body Protected hands

Table 6.6.6-2: Acute worker risk assessment from combined exposure – AKO 600 SC and BOA PRO 480 EC

Application scenario	Active Ingredient	Estimated exposure / AOEL (HQ)	Level of PPE
Workers	Aclonifen	1.07 0.76 0.75	
Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC	Clomazone	0.063 0.063	
Re-entry activity: inspection, irrigation (all)	Cumulative risk Operators (HI)	1.133 0.823 0.813	Hands, arms, body, legs covered
Workers	Aclonifen	1.99 1.39 1.39	
Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC	Clomazone	0.117 0.117	
Re-entry activity: Reaching, picking (all expect Brassica)		2.107 1.507 1.507	Hands, arms, body, legs covered
Workers	Aclonifen	0.48 0.35 0.3	
Mixture of 0.8L AKO 600 SC and 0.2L BOA PRO 480 EC	Clomazone	0.071 0.063	
Re-entry activity: Reaching, picking (all expect Brassica)	Cumulative risk Operators (HI)	0.551 0.421 0.363	Hands, arms, body, legs covered
Workers	Aclonifen	0.795 0.557 0.557	
	Clomazone	0.117 0.117	

Mixture of 0.8L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: inspection, irrigation (all)	Cumulative risk Operators (HI)	0.912 0.674 0.674	Hands, arms, body, legs covered
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Table 6.6.6-3: Acute resident and bystander risk assessment from combined exposure – AKO 600 SC and BOA PRO 480 EC

Application scenario	Active Ingredient	Estimated exposure / AOEL (HQ) – Adult	Estimated exposure / AOEL (HQ) – Children
Residents/ Bystander* Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: inspection, irrigation (all)	Aclonifen	0.816 0.479 0.484	1.9 0.951 0.983
	Clomazone	0.078 0.042	0.201 0.088
	Cumulative risk Operators (HI)	0.894 0.557 0.526	2.101 1.152 1.071
Residents/ Bystander* Mixture of 2.0L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: Reaching, picking (all except Brassica)	Aclonifen	0.816 0.479 0.484	1.9 0.951 0.983
	Clomazone	0.078 0.042	0.201 0.088
	Cumulative risk Operators (HI)	0.894 0.557 0.526	2.101 1.152 1.071
Residents/ Bystander* Mixture of 0.8L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: Reaching, picking (all except Brassica)	Aclonifen	0.329 0.193 0.196	0.767 0.387 0.4
	Clomazone	0.078 0.042	0.201 0.088
	Cumulative risk Operators (HI)	0.407 0.271 0.238	0.968 0.588 0.488
Residents/ Bystander* Mixture of 0.8L AKO 600 SC and 0.2L BOA PRO 480 EC Re-entry activity: inspection, irrigation (all)	Aclonifen	0.329 0.193 0.196	0.767 0.387 0.4
	Clomazone	0.078 0.042	0.201 0.088
	Cumulative risk Operators (HI)	0.407 0.271 0.238	0.968 0.588 0.488

*As no AAOEL value was established for active substances, bystander's exposure is covered by resident's exposure. Hence no risk mitigation measures are necessary

The Hazard Index is < 1 . Thus combined exposure to all active substances in AKO 600 SC and BOA PRO 480 EC mixture is not expected to present a risk for operators, workers, bystanders and residents, however use of PPE is necessary.

The proposed use of the mix of 2L/ha AKO 600 SC and 0.2 L/ha BOA PRO 480 EC exceeds acceptable risk for workers, residents and bystanders. Thus, additional risk mitigation is required. Intended application should be carried out with 10 m buffer strip and 50% nozzle drift reduction included. To minimize the risk, the worker should use 15 days of re-entry interval period. Additionally, it is proposed to install warning signs informing about recent use of PPP next to treated and informing about the schedule of spraying action to mitigate the risk of residents and bystanders.

The proposed use of the mix of 0.8L/ha AKO 600 SC and 0.2 L/ha BOA PRO 480 EC does not exceeds acceptable risk for workers, residents and bystanders. Thus, additional risk mitigation is required. Intended application should be carried out with 10 m buffer strip and 50% nozzle drift reduction included.

Comments of zRMS Study comment 6.6.6	The applicant provided combined exposure and risk assessment of aclonifen and clomazone in a tank mixture of AKO 600 SC and BOA PRO 480 EC. The evaluator has revised combined operator exposure using bare arable land scenario in EFSA online calculator v 1.1.1. (OPEX). Risk assessment of BOA PRO 480 EC is not a subject of this documents and was taken into account by the evaluator separately.		
	According to revised EFSA OPEX calculations it can be concluded that the risk of operator exposure during mixing & loading is acceptable under conditions of intended use when the workwear and gloves are worn. Risk of operator exposure during application is acceptable under conditions of intended use when the workwear is worn.		
	zRMS calculations for operator:		
	Table 6.6.6-1		
	Combined exposure		Hazard index
	ML: Workwear + Gloves		0.9
	AP: Workwear		
	There will be no crop growing on the field at the time of application. Therefore, it is not necessary to perform any re-entry activities shortly after application of tank mixture of AKO 600 SC and BOA PRO 480 EC. Inspection without contact with treated soil scenario has been applied for worker exposure assessment.		
	According to EFSA OPEX calculations, it can be concluded that the risk of worker exposure following application of tank mixture of AKO 600 SC and BOA PRO 480 EC on bare soil is not relevant.		
	zRMS calculations for resident and bystander:		
Table 6.6.6-3			
Combined exposure		Hazard index	
Resident child Body weight: 10 kg	Drift (75th perc.)	0.9	
	Vapour (75th perc.)	11.2	
	Deposits (75th perc.)	0.1	
	Re-entry (75th perc.)	0.0003	
	Sum (mean)	11.8	
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.2	
	Vapour (75th perc.)	3.8	

		Deposits (75th perc.)	0.04
		Re-entry (75th perc.)	5e-05
		Sum (mean)	3.9
	The estimations performed according to EFSA OPEX indicate that the Hazard Index for residents from exposure following application of tank mixture AKO 600 SC + Boa Pro 480 EC is above 1. Therefore, additional risk mitigation is required.		
zRMS agreed endpoints 6.6.6	According to EFSA OPEX calculations it can be concluded that the risk of operator exposure during mixing & loading of mixture AKO 600 SC + Boa Pro 480 EC is acceptable under conditions of intended use when the workwear and gloves are worn. Risk of operator exposure during application is acceptable under conditions of intended use when the workwear is worn. In addition due to the fact that AKO 600 SC and in-use dilution is classified as Skin Sens.1, H317 the operator should wear face protection during mixing/loading application. According to EFSA OPEX calculations, it can be concluded that the risk of worker exposure following application of tank mixture of AKO 600 SC and BOA PRO 480 EC on bare soil is not relevant. The exposure assessment for residents also covers bystander exposure. According to calculations, it can be concluded that for tank mixture AKO 600 SC + Boa Pro 480 EC 50% drift reducing technology, 5 m buffer zone and warning signs informing about recent use of PPP next to treated field is recommended in order to reduce residents and bystander exposure. Drift reduction is also recommended due to the fact that in-use dilution is classified as Skin Sens.1, H317.		

Appendix 1 Lists of data considered in support of the evaluation

List of data submitted by the applicant and relied on

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 7.1.1	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemiroł Sp. z o.o.
KCP 7.1.2	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemiroł Sp. z o.o.
KCP 7.1.3	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemiroł Sp. z o.o.
KCP 7.1.4	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemiroł Sp. z o.o.

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner
KCP 7.1.5	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemirol Sp. z o.o.
KCP 7.1.6	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemirol Sp. z o.o.
KCP 7.1.7	Muchewicz I.	2024	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; Regulation (EC) No. 1272/2008, I. Muchewicz; 2024 No GLP, Unpublished	N	Chemirol Sp. z o.o.
KCP 7.3	Lanjuin J.	2024	<i>IN-VITRO HUMAN SKIN PENETRATION OF ACLONIFEN IN AKO 600 S.C.</i> Regulation (EC) No 440/2008 – Test method B.45; Guidance on Dermal Absorption, EFSA Journal 2017; 15(6): 4873; OECD guideline for the testing of chemicals: Test No. 428: Skin Absorption: in vitro Method (13 April 2004); OECD guidance document for the conduct of skin absorption studies, OECD series on testing and assessment. Number 28, 05-Mar-2004 (ENV/JM/MONO(2004)2). OECD Guidance notes on dermal absorption, series on testing and assessment n°156, 18 August 2011 (ENV/JM/MONO(2011)36). Lanjuin, J (2024) Report No. S24-103695 GLP Published	N	Chemirol Sp. z o.o.

List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner

The following tables are to be completed by MS

List of data submitted by the applicant and not relied on

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner

List of data relied on not submitted by the applicant but necessary for evaluation

Data point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate study Y/N	Owner

Appendix 2 Detailed evaluation of the studies relied upon

A 2.1 Statement on bridging possibilities

Not required.

A 2.2 Acute oral toxicity (KCP 7.1.1)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference:	KCP 7.1.1
Report	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

According to point 7.1.1 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products:

”A test for acute oral toxicity shall be carried out, unless the applicant can justify an alternative approach under Regulation (EC) No 1272/2008. In the latter case, acute oral toxicity of all components shall be provided or reliably predicted with a validated method. Consideration shall be given to the possible effects of components on the toxic potential of the total mixture.”

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Due to the fact, that all components of the formulation AKO 600 SC are known, the acute oral toxicity test is not necessary.

Materials and methods

We use the summation method using the formula:

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}}$$

Where:

- C_i - concentration of ingredient i (% w/w or % v/v)
- i – the individual ingredient from 1 to n
- n – the number of ingredients
- ATE_i - Acute Toxicity Estimate of ingredient i .

We use the table:

Table 3.1.2 Conversion from experimentally obtained acute toxicity range values (or acute toxicity hazard categories) to acute toxicity point estimates for classification for the respective routes of exposure.

Exposure routes	Classification Category or experimentally obtained acute toxicity range estimate	Converted acute toxicity point estimate (see Note 1)
Oral (mg/kg bodyweight)	0 < Category 1 ≤ 5	0,5
	5 < Category 2 ≤ 50	5
	50 < Category 3 ≤ 300	100
	300 < Category 4 ≤ 2 000	500
Dermal (mg/kg bodyweight)	0 < Category 1 ≤ 50	5
	50 < Category 2 ≤ 200	50
	200 < Category 3 ≤ 1 000	300
	1 000 < Category 4 ≤ 2 000	1 100
Gases (ppmV)	0 < Category 1 ≤ 100	10
	100 < Category 2 ≤ 500	100
	500 < Category 3 ≤ 2 500	700
	2 500 < Category 4 ≤ 20 000	4 500
Vapours (mg/l)	0 < Category 1 ≤ 0,5	0,05
	0,5 < Category 2 ≤ 2,0	0,5
	2,0 < Category 3 ≤ 10,0	3
	10,0 < Category 4 ≤ 20,0	11
Dust/mist (mg/l)	0 < Category 1 ≤ 0,05	0,005
	0,05 < Category 2 ≤ 0,5	0,05

	0,5 < Category 3 ≤ 1,0 1,0 < Category 4 ≤ 5,0	0,5 1,5
--	--	------------

Note 1 These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.

Four ingredients are relevant.

- 0.000125 % (Acute Tox. 4, H302)
- 0.0000038 % (Acute Tox. 3, H301)
- 0.0075 % (Acute Tox. 4, H302)
- 0.025 % (Acute Tox. 4, H302)

For above ingredients estimated values ATE_i are used.

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}} = \frac{100}{\frac{0.000125}{500} + \frac{0.0000038}{100} + \frac{0.0075}{500} + \frac{0.025}{500}} = \frac{100}{0.000065288}$$

$$= 1\,531\,675 \frac{\text{mg}}{\text{kg bw}}$$

According to the table 3.1.2, the result (1 531 675 mg/ kg bw >> 2 000 mg/kg bw) is significantly higher than result triggering classification. Therefore the formulation is not classified this this hazard class.

Conclusion

According to calculation method, the result 1 531 675 mg/kg bw is significantly higher than result triggering classification. Therefore the formulation is not classified as Acute Tox. 4, H302.

According to point 7.1.1 of part A of Annex Regulation No 284/2014, it is possible to waive from performing acute oral toxicity tests.

A 2.3 Acute percutaneous (dermal) toxicity (KCP 7.1.2)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference: KCP 7.1.2

Report Toxicological classification of product AKO 600 SC based on calculation method taking into consideration

	health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

According to point 7.1.2 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products:

”A test for dermal toxicity shall be carried out on a case by case basis, unless the applicant can justify an alternative approach under Regulation (EC) No 1272/2008. In the latter case, acute dermal toxicity of all components shall be provided or reliably predicted with a validated method. Consideration shall be given to the possible effects of components on the toxic potential of the total mixture. Findings of severe skin irritation or corrosion in the dermal study may be used instead of performing a specific irritation study.”

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Due to the fact, that all components of the formulation AKO 600 SC are known, the acute dermal toxicity test is not necessary.

Materials and methods

We use the summation method using the formula:

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}}$$

Where:

- C_i - concentration of ingredient i (% w/w or % v/v)
- i – the individual ingredient from 1 to n
- n – the number of ingredients
- ATE_i - Acute Toxicity Estimate of ingredient i.

We use the table:

Table 3.1.2 Conversion from experimentally obtained acute toxicity range values (or acute toxicity hazard categories) to acute toxicity point estimates for classification for the respective routes of exposure.

Exposure routes	Classification Category or experimentally obtained acute toxicity range estimate	Converted acute toxicity point estimate (see Note 1)
Oral (mg/kg bodyweight)	0 < Category 1 ≤ 5	0,5
	5 < Category 2 ≤ 50	5
	50 < Category 3 ≤ 300	100
	300 < Category 4 ≤ 2 000	500
Dermal (mg/kg bodyweight)	0 < Category 1 ≤ 50	5
	50 < Category 2 ≤ 200	50
	200 < Category 3 ≤ 1 000	300
	1 000 < Category 4 ≤ 2 000	1 100
Gases (ppmV)	0 < Category 1 ≤ 100	10
	100 < Category 2 ≤ 500	100
	500 < Category 3 ≤ 2 500	700
	2 500 < Category 4 ≤ 20 000	4 500
Vapours (mg/l)	0 < Category 1 ≤ 0,5	0,05
	0,5 < Category 2 ≤ 2,0	0,5
	2,0 < Category 3 ≤ 10,0	3
	10,0 < Category 4 ≤ 20,0	11
Dust/mist (mg/l)	0 < Category 1 ≤ 0,05	0,005
	0,05 < Category 2 ≤ 0,5	0,05
	0,5 < Category 3 ≤ 1,0	0,5
	1,0 < Category 4 ≤ 5,0	1,5

Note 1 These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.

Only one ingredient is relevant.

- 0.0000038 % (Acute Tox. 2, H310)

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}} = \frac{100}{\frac{0.0000038}{50}} = \frac{100}{0.000000076} = 1\,315\,789\,473 \frac{\text{mg}}{\text{kg bw}}$$

According to the table 3.1.2, the result (1 315 789 473 mg/ kg bw > > 2 000 mg/kg bw) is significantly higher than result triggering classification. Therefore the formulation is not classified this this hazard class.

Conclusion

According to calculation method, the result 1 315 789 473 mg/kg bw is significantly higher than result triggering classification. Therefore the formulation is not

classified as Acute Tox. 2, H310.

According to point 7.1.2 of part A of Annex Regulation No 284/2014, it is possible to waive from performing acute oral toxicity tests.

A 2.4 Acute inhalation toxicity (KCP 7.1.3)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference:	KCP 7.1.3
Report	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

Inhalation study on AKO 600 SC is not required according to point 7.1.3 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products the inhalation test must be carried out since the preparation is:

- a gas or liquefied gas,
- a smoke generating formulation or fumigant,
- used with fogging equipment,
- a vapor releasing preparation,
- an aerosol,
- a powder containing a significant proportion of particles of diameter $< 50 \mu\text{m}$ ($> 1\%$ on a weight basis),
- to be applied from aircraft in cases where inhalation exposure is relevant,
- contains an active substance with a vapor pressure $> 1 \times 10^{-2}$ Pa and is to be used in enclosed spaces such as warehouses or glasshouses,
- to be applied in a manner which generates a significant proportion of particles or droplets of diameter $< 50 \mu\text{m}$ ($> 1\%$ on a weight basis).

The active substances and the other co-formulants are not classified as acute inhalation toxic, it can be assumed that entire formulation is not classified in this class. According to point 7.1.3 of part A of Annex Regulation No 284/2014, it is possible to waive from acute inhalation toxicity test.

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Materials and methods

We use the summation method using the formula:

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}}$$

Where:

- C_i - concentration of ingredient i (% w/w or % v/v)
- i – the individual ingredient from 1 to n
- n – the number of ingredients
- ATE_i - Acute Toxicity Estimate of ingredient i.

We use the table:

Table 3.1.2 Conversion from experimentally obtained acute toxicity range values (or acute toxicity hazard categories) to acute toxicity point estimates for classification for the respective routes of exposure.

Exposure routes	Classification Category or experimentally obtained acute toxicity range estimate	Converted acute toxicity point estimate (see Note 1)
Oral (mg/kg bodyweight)	0 < Category 1 ≤ 5	0,5
	5 < Category 2 ≤ 50	5
	50 < Category 3 ≤ 300	100
	300 < Category 4 ≤ 2 000	500
Dermal (mg/kg bodyweight)	0 < Category 1 ≤ 50	5
	50 < Category 2 ≤ 200	50
	200 < Category 3 ≤ 1 000	300
	1 000 < Category 4 ≤ 2 000	1 100
Gases (ppmV)	0 < Category 1 ≤ 100	10
	100 < Category 2 ≤ 500	100
	500 < Category 3 ≤ 2 500	700
	2 500 < Category 4 ≤ 20 000	4 500

Vapours (mg/l)	$0 < \text{Category } 1 \leq 0,5$ $0,5 < \text{Category } 2 \leq 2,0$ $2,0 < \text{Category } 3 \leq 10,0$ $10,0 < \text{Category } 4 \leq 20,0$	0,05 0,5 3 11
Dust/mist (mg/l)	$0 < \text{Category } 1 \leq 0,05$ $0,05 < \text{Category } 2 \leq 0,5$ $0,5 < \text{Category } 3 \leq 1,0$ $1,0 < \text{Category } 4 \leq 5,0$	0,005 0,05 0,5 1,5

Note 1 These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.

Only one ingredient is relevant in this class of hazard.

- 0.0000038 % (Acute Tox. 2, H330)

$$ATE_{mix} = \frac{100}{\sum_{i=1}^n \frac{C_i}{ATE_i}} = \frac{100}{\frac{0.0000038}{0.05}} = \frac{100}{0.000076} = 1\,315\,789 \frac{\text{mg}}{\text{l}}$$

According to the table 3.1.2, the result (1 315 789 mg/l >> 20 mg/l) is significantly higher than result triggering classification. Therefore the formulation is not classified this this hazard class.

Conclusion

According to calculation method, the result 1 315 789 mg/l bw is significantly higher than a result triggering classification. Therefore the formulation is not classified as Acute Tox. 2, H330

According to point 7.1.3 of part A of Annex Regulation No 284/2014, it is possible to waive from performing acute oral toxicity tests.

A 2.5 Skin irritation (KCP 7.1.4)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference: KCP 7.1.4

Report	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

Materials and methods

According to point 7.1.4 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products:

” The skin irritancy of the plant protection product shall be reported based on the tiered approach, unless the applicant can justify an alternative approach under Regulation (EC) No 1272/2008. In the latter case, skin irritation properties of all components shall be provided or reliably predicted with a validated method. Consideration shall be given to the possible effects of components on the irritant potential of the total mixture.”

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Due to the fact, that all components of the formulation AKO 600 SC are known, skin corrosive test is not necessary.

Table 3.2.3
Generic concentration limits of ingredients classified for skin corrosive/irritant hazard (Category 1 or 2) that trigger classification of the mixture as corrosive/irritant to skin.

Sum of ingredients classified as:	Concentration triggering classification of a mixture as:	
	Skin Corrosive	Skin Irritant
	Category 1 (see note below)	Category 2
Skin Corrosive Categories 1A, 1B, 1C	≥ 5 %	≥ 1 % but < 5 %
Skin irritant Category 2		≥ 10 %
10 × Skin Corrosive Category 1A, 1B, 1C) + Skin irritant Category 2		≥ 10 %

Corrosive effects to skin (Skin Corr. 1, H314)

Two ingredients are relevant in this class of hazard.

- 0.0000038 % (Skin Corr 1C, H314), H314: C ≥ 0.6 %
- 0.01 % (Skin Corr. 1A, H314), H314: C ≥ 5 %

$$\sum C_{\text{Skin Corr}} = \frac{0.0000038}{0.6} \% + \frac{0.01}{5} \% = 0.002\%$$

Since ingredients has a specific concentration limits for the Skin Corr. 1, H314 classification, the classification was recalculated using this concentration. Sum of concentration (0.01 %) is lower than result triggering eye hazard classification (5%). Therefore the whole formulation is not classified this this hazard class.

Irritating to skin (Skin Irrit. 2, H315)

Four ingredients are relevant in this class of hazard.

- 0.000125 % (Skin Irrit. 2, H315)
- 0.0000038 % (Skin Corr 1C, H314), H314: C ≥ 0.6 %
- 0.025 % (Skin Irrit. 2, H315)
- 0.01 % (Skin Corr 1A, H314), H314: C ≥ 5 %

We use the summation method, consisting in adding up the percentages of all ingredients classified in the each class.

$$\begin{aligned} 10 (\sum C_{\text{Skin Corr.}}) + \sum C_{\text{Skin Irrit.}} &= 10 (0.0000038\% + 0.01\%) + 0.000125 + 0.025\% \\ &= 0.1 \% + 0.0252 \% = 0.125 \% \end{aligned}$$

The result (0.125 %) is lower than result triggering eye hazard classification (10 %). Therefore the formulation is not classified as irritating to skin (Skin Irrit. 2, H315).

Conclusion

The concentration of relevant ingredients (0.125 %) is significantly lower than concentration triggering the classification (10%). Therefore the whole formulation is not classified as Skin Irrit. 2, H315.

A 2.6 Eye irritation (KCP 7.1.5)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference:	KCP 7.1.5
Report	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

According to point 7.1.5 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products:

” Eye irritation tests shall be provided, unless it is likely that severe effects on the eyes may be produced or the applicant can justify an alternative approach under Regulation (EC) No 1272/2008. In the latter case, eye irritation properties of all components shall be provided or reliably predicted with a validated method. Consideration shall be given to the possible effects of components on the irritant potential of the total mixture.”

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Due to the fact, that all components of the formulation AKO 600 SC are known, eye irritation test is not necessary.

For consideration of corrosive and irritant properties the following table applies:

Table 3.3.3

Generic concentration limits of ingredients of a mixture classified as Skin corrosive Category 1 and/ or eye Category 1 or 2 for effects on the eye that trigger classification of the mixture for effects on the eye (Category 1 or 2).

Sum of ingredients classified as:	Concentration triggering classification of a mixture as:	
	Irreversible Eye Effects	Reversible Eye Effects
	Category 1	Category 2
Eye Effects Category 1 or Skin	$\geq 3 \%$	$\geq 1 \%$ but $< 3 \%$

Corrosive Category 1A, 1B, 1C		
Eye Effects Category 2		$\geq 10 \%$
$(10 \times \text{Eye Effects Category 1}) +$ Eye effects Category 2		$\geq 10 \%$
Skin Corrosive Category 1A, 1B, 1C + Eye effects Category 1	$\geq 3 \%$	$\geq 1 \%$ but $< 3 \%$
$10 \times (\text{Skin Corrosive Category 1A, 1B, 1C} + \text{Eye Effects Category 1}) +$ Eye Effects Category 2		$\geq 10 \%$

Five ingredients are relevant in this class of hazard.

- 0.000125 % (Eye Dam. 1, H318)
- 0.0000038 % (Eye Dam. 1, H318, Skin Corr. 1C, H314)
- 0.0075 % (Eye Dam. 1, H318)
- 0.025 % (Eye Dam. 1, H318)
- 0.01 % (Eye Dam. 1, H318, Skin Corr. 1A, H314)

$$C_{\text{Skin Corr}} + C_{\text{Eye Dam.}} = 0.000125\% + 0.0000038\% + 0.0075\% + 0.025\% + 0.01\% = 0.043\%$$

Sum of concentration (0.043 %) is lower than result triggering eye hazard classification (3%). Therefore the whole formulation is not classified this this hazard class.

Conclusion

According to calculation method, the result 0.043 % is significantly lower than a concentration triggering classification (3%). Therefore the whole formulation is not classified as Eye Dam. 1, H318.

A 2.7 Skin sensitisation (KCP 7.1.6)

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference:	KCP 7.1.6
Report	Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024
Guideline(s):	Regulation (EC) No. 1272/2008
Deviations:	-
GLP:	No
Acceptability:	Yes

According to point 7.1.6 of Part A of Annex to the Commission Regulation (EU) No 284/2013 as regards the data requirements for plant protection products:

”The skin sensitisation test shall be carried out unless the active substances or co-formulants are known to have sensitising properties or the applicant can justify an alternative approach under Regulation (EC) No 1272/2008. In the latter case, skin sensitisation properties of all components shall be provided or reliably predicted with a validated method.

Consideration shall be given to the possible effects of components on the sensitising potential of the total mixture.” Due to the fact, that all components of the formulation AKO 600 SC are known, skin sensitisation test is not necessary.

The complete composition of the formulation with the classification of individual ingredients is available in part C.

Materials and methods

We use the table:

Table 3.4.5

Generic concentration limits of ingredients of a mixture classified as either skin sensitisers or respiratory sensitisers that trigger classification of the mixture

Ingredient classified as:	Concentration triggering classification of a mixture as:	
	Skin Sensitiser	Respiratory Sensitiser

	All physical states	Solid/Liquid	Gas
Skin Sensitiser Category 1	$\geq 1,0 \%$	-	-
Skin Sensitiser Category 1A	$\geq 0,1 \%$	-	-
Skin Sensitiser Category 1B	$\geq 1,0 \%$		
Respiratory Sensitiser Category 1	-	$\geq 1,0 \%$	$\geq 0,2 \%$
Respiratory Sensitiser Category 1A	-	$\geq 0,1 \%$	$\geq 0,1 \%$
Respiratory Sensitiser Category 1B		$\geq 1,0 \%$	$\geq 0,2 \%$

Four ingredients are relevant in this class of hazard.

- 50.6 % (Skin Sens. 1A, H317)
- 0.000125 % (Skin Sens. 1, H317), H317 $\geq 0.036 \%$
- 0.0000038 % (Skin Sens. 1A), H317: C $\geq 0,0015 \%$
- 0.025 % (Skin Sens. 1, H317), H317 $\geq 0.036 \%$

The content of ingredients sum is higher than concentration triggering classification. Therefore the formulation is classified as **Skin Sens. 1, H317.**

Conclusion

According to calculation method, the concentration of relevant ingredients is significantly higher than a concentration triggering classification (1%). Therefore the formulation is classified as **Skin Sens. 1, H317.**

A 2.8 Supplementary studies for combinations of plant protection products (KCP 7.1.7)

Not required.

A 2.9 Data on co-formulants (KCP 7.4)

A 2.9.1 Material safety data sheet for each co- formulant

Information regarding material safety data sheets of the co-formulants can be found in the confidential dossier of this submission (Registration Report - Part C).

A 2.9.2 Available toxicological data for each co-formulant

Available toxicological data for each co-formulant can be found in the confidential dossier of this submission (Registration Report - Part C).

A 2.10 Studies on dermal absorption (KCP 7.3)

Comments of zRMS:	Study on dermal absorption was performed according to OECD 428 and was GLP compliant. The study is acceptable. Dermal absorption assessment for aclonifen provided by the applicant is based on the current version of EFSA guidance document on dermal absorption (2017) and is acceptable.
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Reference:

KCP 7.3

Report

IN-VITRO HUMAN SKIN PENETRATION OF ACLONIFEN IN
AKO 600 SC TEST ITEM, Study code: S24-103695, Lanjuin J. 2024,
Eurofins Agrosience Services Chem SAS75B, avenue de Pascalet
30310 Vergèze, France

Guideline(s):

Regulation (EC) No 440/2008 – Test method B.45
OECD guideline for the testing of chemicals: Test No. 428: Skin Absorption: *in vitro* Method (13 April 2004)
OECD guidance document for the conduct of skin absorption studies, OECD series on testing and assessment. Number 28, 05-Mar-2004 (ENV/JM/MONO(2004)2)
OECD Guidance notes on dermal absorption, series on testing and assessment n°156, 18 August 2011 (ENV/JM/MONO(2011)36)
Guidance on Dermal Absorption, EFSA Journal 2017; 15(6): 4873

Deviations:

-

GLP:

~~No~~ Yes

Acceptability:

Materials and Methods

Test material:

Name	[aniline-U- ¹⁴ C]- aclonifen	aclonifen	AKO 600 SC	Blank formulation AKO 600 SC Placebo
Supplier	Selcia	Supelco	PUH Chemirol Sp. z o.o.	PUH Chemirol Sp. z o.o.
Batch number	14252NXT002-1	BCCH7675	CHR/03/2023	CHR/03/2023
Specific activity	136.0 µCi/mg	-	-	-
Concentration	Solid	-	604.02 g/L aclonifen	No aclonifen
Density	-	-	1.2072	No data
Purity	(Radio) 99.4%	99.8%	-	-
Expiry date	Not relevant	31 May 2027	01 Mar 2025	01 Mar 2025
Storage conditions	Temperature set at - 20°C	Temperature set at 20°C	Temperature set at 20°C	Room temperature

According to the Conclusion on the peer review of aclonifen (EFSA Scientific Report (2008) 149, 1-80):

ACLONIFEN CAS N° 74070-46-5	
MW	264.66 g/mol
Solubility at 20°C	>730 g/L in acetone 49.2 g/L in methanol 1.4 mg/L in ultra pure water
Log P _{ow} pH 5-6	4.37
Vapour pressure at 20°C	1.6 x 10 ⁻⁵ Pa
Aqueous hydrolysis DT50 (pH 5-9)	stable
Aqueous photolysis DT50 (20°C, pH 7)	197 days

The mean results obtained are presented in the following table.

In-vitro dermal penetration of aclonifen formulated as AKO 600 SC through human skin - Recovery data

Dose group	High dose		Low dose	
	Formulation concentrate (n=8)		Spray dilution 1:1333 (n=8)	
Target concentration [mg/mL]	600		0.45	
Target dose [µg/cm²]	6000		4.5	
Mean actual applied dose [µg/cm²]	5861.49		3.17	
	Recovery [%]		Recovery [%]	
	Mean	S.D.	Mean	S.D.
Dislodgeable dose				
Skin washing after 8 h	95.35	1.58	63.26	13.30
Donor chamber wash	0.09	0.10	1.23	0.66
Dose associated to skin				
Tape strips: 1 st sample, strips 1 + 2	0.12	0.08	6.20	2.98
Tape strips: 2 nd sample; strips 3 – n	0.07	0.03	6.62	5.23
Skin preparation	0.12	0.10	3.80	2.28
Absorbed dose				
Receptor fluid	0.17	0.09	21.63	9.13
Receptor chamber wash	BLQ	NC	0.05	0.07
Total recovery ¹	95.92	1.71	101.96	3.47
Absorption essentially complete at end of study (>75% absorption within half the study duration) [%Absorption at t _{0.5}]	Yes [78.40% ± 14.87]		Yes [81.92% ± 3.99]	
Measured absorption ²	0.36	0.15	25.48	10.83
Absorption estimates used for risk assessment ³	0.49		35	

¹ Values may not calculate exactly due to rounding of figures

² In accordance with the EFSA Guidance on Dermal Absorption (EFSA Journal 2017;15(6):4873), the radioactivity in the second tape-strip pool (3rd to nth tape strip) is considered potentially absorbable if less than 75% of the absorption occurred in the first half of the study.

³ In accordance with the EFSA Guidance on Dermal Absorption (EFSA Journal 2017;15(6):4873), total absorption = mean + k*SD, where k= 0.84 based on the number of replicates employed (n=8).

BLQ: below the limit of quantification; NC: not calculated; N/A: not applicable; SD: standard deviation

The dermal penetration of aclonifen formulated as AKO 600 SC through human dermatomed skin was de-

Conclusion: terminated *in vitro*. The amount of applied dose penetrating within 24 hours was determined to be 0.49% (mean + k * SD) and 35% for the formulation concentrate and the 1:1333 spray dilution, respectively, based on the EFSA guidance criteria.

A 2.11 Other/Special Studies

A 2.11.1 Carcinogenicity

Comments of zRMS:	The hazard assessment has been conducted by the applicant based on the alternative method (calculation) according to the Regulation (EC) 1272/2008 and is acceptable.
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Reference: KCP 7.1.7

Report Toxicological classification of product AKO 600 SC based on calculation method taking into consideration health hazards of constituent substances; I. Muchewicz; 2024

Guideline(s): Regulation (EC) No. 1272/2008

Deviations: -

GLP: No

Acceptability: Yes

Materials and Methods

For consideration of carcinogenicity the following table applies:

Table 3.6.2

Generic concentration limits of ingredients of a mixture classified as carcinogen that trigger classification of the mixture.

Ingredient classified as:	Generic concentration limits triggering classification of a mixture as:
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	Category 1A carcinogen	Category 1B carcinogen	Category 2 carcinogen
Category 1A carcinogen	$\geq 0.1 \%$	-	-
Category 1B carcinogen	-	$\geq 0.1 \%$	-
Category 2 carcinogen	-	-	$\geq 1.0 \%$ [Note 1]

One ingredient is relevant in this class of hazard.

- 50.6 % (Carc. 2, H351)

The concentration of relevant ingredient is higher than generic concentration level (1.0 %). Therefore the formulation is classified as **Carc. 2, H351**

Conclusions

The concentration of one of the ingredient (50.6 %) is higher than concentration triggering classification of whole formulation (1.0 %). Therefore the whole product will be classified as **Carc. 2, H351**.

Appendix 3 Exposure calculations



GENERAL_AKO 600
SC bare soil_20251001



GENERAL_AKO 600
SC + Boa Pro 480 EC

Buffer strip 5 m, drift reduction 50%



GENERAL_AKO 600
SC + Boa Pro 480 EC

~~A 3.1 Operator exposure calculations (KCP 7.2.1.1)~~

~~Information on product and active substance~~

Product name	AKO600SC
Formulation type	Soluble concentrates, emulsifiable concentrate, etc.
Product category	Herbicide
Name of active substance	<u>Aclonifen</u>
Concentration of active substance [g a.s./l or kg]	600
AOEL [mg/kg bw/day]	0.07
AAOEL [mg/kg bw]	
Inhalation absorption [%]	100
Oral absorption [%]	100
Dermal absorption [%] (concentrate)	10

A 3.1.1 OPEX report field crops (critical use: 3.0 L of product/ha; Re-entry activity: inspection, irrigation)

Assessed use

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 1	Field crops	3.0	l/ha	1	NA	200	300	Outdoor	Downward spraying	Normal	Vehicle-mounted	2-3	0

Operator short term exposure

Mixing/loading Application		Aclonifen (% AOEL) Normal & vehicle- mounted
		852
		526
		29.6

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOE L
Field crops/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile Crop density: Normal			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 10 % Dermal absorption (in-use dilution): 50 %			
Aclonifen	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.02	29.6

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation / Outdoor Work rate: 2 hours/day Interval: NA Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Number of applications & application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Aclonifen			
Potential	1.1	1607	121
Workwear	0.1	180	26
Workwear and gloves	0.1	161	21
Hands covered, no workwear			

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Aclonifen			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	174
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	20.8
	Re-entry (75th perc.)	0.2	217
	Sum (mean)	0.2	284
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	41.3
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.006	8.8
	Re-entry (75th perc.)	0.08	121
	Sum (mean)	0.09	122

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
		Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l	
<u>Aclonifen</u>		Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	<u>Vapour</u> (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.2	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.07	
	<u>Vapour</u> (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.08	

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	Aclonifen
Concentration of active substance [g a.s./l or kg]	600	Crops	Field crops
Area treated [ha/day]	50	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg bw/day]	0.07		
AAOEL [mg/kg bw]			

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Inspection, irrigation	Dermal transfer coefficient - Total potential exposure [cm²/h]	12500
Crops	Field crops	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	1400
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1250
Application technique	Vehicle-mounted	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	3	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA		
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	<u>Aclonifen</u>		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	2		

A 3.1.2 OPEX report – low vegetables (critical use: 3.0 L of product/ha; Re-entry activity: inspection, irrigation)

Assessed use

Use	Crops	Max. applica- tion rate of the produc- t [l or kg/ha]	Unit	Max. no. of applica- tions	Interval between multiple applica- tions [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoor	Applica- tion method	Type of cultiva- tion	Applica- tion technique	Buffer strip [m]	Drift reducti- on [%]
Use 1	Low vegetab- les	3.0	l/ha	1	NA	200	400	Outdoor	Down- ward sprayin- g	Normal	Vehicle- moun- ted	2-3	0

Operator

Mixing/loading Application		Aclonifen (% AOEL)		
		Normal & vehicle- mounted	Normal & manual-hand held	Normal & manual- knapsack
		852	5277	1323
		526	671	178
		29.6	515	129
		25.5	512	128

Operator – short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOE L
Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.8 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
<u>Aclonifen</u>	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.02	29.6
Worker			
Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation (All) / Outdoor			
Work rate: 2 hours/day			
Interval: NA			
Body weight: 60 kg			
TC (potential): 12500 cm²/h			
TC (workwear (arms, body and legs covered)): 1400 cm²/h			
TC (workwear (arms, body and legs covered) and gloves): 1250 cm²/h			
TC (gloves): NA cm²/h			
Number of applications & application rate: 1 x 1.8 kg a.s./ha			
Dermal absorption: 50 %			
DFR: 3 µg/cm² foliage per kg a.s./ha			
DT50: 30 days			
Potential	1.1	1607	121
Workwear	0.1	180	26
Workwear and gloves	0.1	161	21
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Aclonifen			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	174
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	20.8
	Re-entry (75th perc.)	0.2	217
	Sum (mean)	0.2	284
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	41.3
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.006	8.8
	Re-entry (75th perc.)	0.08	121
	Sum (mean)	0.09	122

Bystander

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Aclonifen			
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	Vapour (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.2	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.07	
	Vapour (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.08	

Appendix – Operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	<u>Aclonifen</u>
Concentration of active substance [g <u>a.s./l or kg</u>]	600	Crops	Low vegetables
Area treated [ha/day]	50	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg <u>bw/day</u>]	0.07		
AAOEL [mg/kg <u>bw</u>]			

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Inspection, irrigation (All)	Dermal transfer coefficient - Total potential exposure [cm²/h]	12500
Crops	Low vegetables	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	1400
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1250
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	3	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.01
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	Acronifen		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	2		

A 3.1.3 OPEX report – low vegetables (critical use: 3.0 L of product/ha; Re-entry activity: reaching, picking (all except Brassica))
Assessed use

Use	Crops	Max. applica- tion rate of the produc- t [l or kg/ha]	Unit	Max. no. of applica- tions	Interval between multiple applica- tions [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoor	Applica- tion method	Type of cultiva- tion	Applica- tion technique	Buffer strip [m]	Drift reducti- on [%]
Use 8	Low vegetables	3.0	l/ha	1	NA	200	400	Outdoor	Downward spraying	Normal	Vehicle-mounted	2-3	0

Operator

		Acronifen (% AOEL)		
Mixing/loading Application		Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		852	5277	1323
		526	671	178
		29.6	515	129
		25.5	512	128
				

Operator – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOE L
Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.8 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
<u>Aclonifen</u>	M/L: Workwear + Protected hands	0.02	29.6
	App: Workwear + Protected hands		

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Reaching, picking (all except Brassica) / Outdoor Work rate: 8 hours/day Interval: NA Body weight: 60 kg TC (potential): 5800 cm²/h TC (workwear (arms, body and legs covered)): 2500 cm²/h TC (workwear (arms, body and legs covered) and gloves): 580 cm²/h TC (gloves): NA cm²/h			
Number of applications & application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Potential	2.1	2983	147
Workwear	0.9	1286	111
Workwear and gloves	0.2	298	48
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	174
	<u>Vapour</u> (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	20.8
	Re-entry (75th perc.)	0.2	217
	Sum (mean)	0.2	284
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	41.3
	<u>Vapour</u> (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.006	8.8
	Re-entry (75th perc.)	0.08	121
	Sum (mean)	0.09	122

Bystander

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	<u>Vapour</u> (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.2	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.07	
	<u>Vapour</u> (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.08	

Appendix – Operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	<u>Aclonifen</u>
Concentration of active substance [g <u>a.s./l</u> or kg]	600	Crops	Low vegetables
Area treated [ha/day]	50	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg <u>bw/day</u>]	0.07		
AAOEL [mg/kg <u>bw</u>]			

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg <u>bw</u> /day]	0.07
Re-entry activity	Reaching, picking (all except Brassica)	Dermal transfer coefficient - Total potential exposure [cm²/h]	5800
Crops	Low vegetables	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	2500
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	580
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	3	DFR refined worker [µg/cm² foliage per kg <u>a.s.</u> /ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.1
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	<u>Aclonifen</u>		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	8		

A 3.1.4 OPEX report – low ornamentals (critical use: 2.5 L of product/ha; Re-entry activity: inspection, irrigation)

Assessed use:

Use	Crops	Max. applica- tion rate of the produc- t [l or kg/ha]	Unit	Max. no. of applica- tions	Interval between multiple applica- tions [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoor	Applica- tion method	Type of cultiva- tion	Applica- tion technique	Buffer strip [m]	Drift reducti- on [%]
Use 1	Low orname- ntals	2.5	l/ha	1	NA	150	400	Outdoor	Down- ward spraying	Normal	Vehicle- mounted	2-3	0

Operator – short term exposure

		Aclonifen (% AOEL)		
Mixing/loading Application		Normal & vehicle- mounted	Normal & manual-hand- held	Normal & manual- knapsack
		739	4403	1102
		458	563	149
		25.4	429	108
		21.9	426	106
				

Operator

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOE L
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.5 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
<u>Aclonifen</u>	M/L: Workwear + Protected hands	0.02	25.4
	App: Workwear + Protected hands		

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation / Outdoor			
Work rate: 2 hours/day			
Interval: NA			
Body weight: 60 kg			
TC (potential): 12500 cm²/h			
TC (workwear (arms, body and legs covered)): 1400 cm²/h			
TC (workwear (arms, body and legs covered) and gloves): 1250 cm²/h			
TC (gloves): NA cm²/h			
Number of applications & application rate: 1 x 1.5 kg a.s./ha			
Dermal absorption: 50 %			
DFR: 3 µg/cm² foliage per kg a.s./ha			
DT50: 30 days			
Potential	0.9	1339	113
Workwear	0.1	150	18
Workwear and gloves	0.09	134	13
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 150 l			
Number of applications and application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	194
	<u>Vapour</u> (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	17.3
	Re-entry (75th perc.)	0.1	181
	Sum (mean)	0.2	264
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	45.9
	<u>Vapour</u> (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.005	7.3
	Re-entry (75th perc.)	0.07	100.4
	Sum (mean)	0.08	107

Bystander

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 150 l			
Number of applications and application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
<u>Acronifen</u>			
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	<u>Vapour</u> (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.1	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.08	
	<u>Vapour</u> (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.07	

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Inspection, irrigation	Dermal transfer coefficient - Total potential exposure [cm²/h]	12500
Crops	Low ornamentals	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	1400
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1250
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	2.5	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.01
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	<u>Aclonifen</u>		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	2		

Appendix – Operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	Aclonifen
Concentration of active substance [g a.s./l or kg]	600	Crops	Low ornamentals
Area treated [ha/day]	50	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg bw/day]	0.07		
AAOEL [mg/kg bw]			

A 3.1.5 OPEX report – low ornamentals (critical use: 2.5 L of product/ha; Re-entry activity: cutting, sorting, bundling, carrying)

Assessed use

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 4	Low ornamentals	2.5	l/ha	1	NA	150	400	Outdoor	Downward spraying	Normal	Vehicle-mounted	2-3	0

Operator – short term exposure

Mixing/loading Application		Aclonifen (% AOEL)		
		Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
		739	4403	1102
		458	563	149
		25.4	429	108
		21.9	426	106
				

Operator

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOE L
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.5 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
Aclonifen	M/L: Workwear + Protected hands	0.02	25.4
	App: Workwear + Protected hands		

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying / Outdoor Work rate: 8 hours/day Interval: NA Body weight: 60 kg TC (potential): 14000 cm²/h TC (workwear (arms, body and legs covered)): 5000 cm²/h TC (workwear (arms, body and legs covered) and gloves): 1400 cm²/h TC (gloves): NA cm²/h			
Number of applications & application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Potential	4.2	6000	178
Workwear	1.5	2143	133
Workwear and gloves	0.4	600	78
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 150 l			
Number of applications and application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	194
	<u>Vapour</u> (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	17.3
	Re-entry (75th perc.)	0.1	181
	Sum (mean)	0.2	264
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	45.9
	<u>Vapour</u> (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.005	7.3
	Re-entry (75th perc.)	0.07	100.4
	Sum (mean)	0.08	107

Bystander

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 150 l			
Number of applications and application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	<u>Vapour</u> (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.1	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.08	
	<u>Vapour</u> (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.07	

Appendix – Operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	Aclonifen
Concentration of active substance [g a.s./l or kg]	600	Crops	Low ornamentals
Area treated [ha/day]	50	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg bw/day]	0.07		
AAOEL [mg/kg bw]			

Appendix – worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Cutting, sorting, bundling, carrying	Dermal transfer coefficient - Total potential exposure [cm²/h]	14000
Crops	Low ornamentals	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	5000
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1400
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	2.5	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.1
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	Aclonifen		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	8		

A 3.1.6 OPEX report high ornamentals (critical use: 3 L of product/ha; Re-entry activity: inspection, irrigation)

Assessed uses

Use	Crops	Max. applica tion rate of the produc t [l or kg/ha]	Unit	Max. no. of applica tions	Interval between n multipl e applica tions [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoo r	Applica tion method	Type of cultivat ion	Applica tion techniq ue	Buffer strip [m]	Drift reducti on [%]
Use 1	High orname ntals	3.00	l/ha	1	NA	200	300	Outdoor	Downw ard sprayin g	Normal	Vehicle- mounte d	2-3	0

Operator – short term exposure

		Aclonifen (% AOEL)		
Mixing/loading Application		Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
		1030	5277	1323
		484	671	178
		14.7	515	129
		12.9	512	128

Operator

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.8 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
Aclonifen	M/L: Workwear + Protected hands	0.01	14.7
	App: Workwear + Protected hands		

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation / Outdoor Work rate: 2 hours/day Interval: NA Body weight: 60 kg TC (potential): 12500 cm²/h TC (workwear (arms, body and legs covered)): 1400 cm²/h TC (workwear (arms, body and legs covered) and gloves): 1250 cm²/h TC (gloves): NA cm²/h			
Number of applications & application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Aclonifen			
Potential	1.1	1607	121
Workwear	0.1	180	26
Workwear and gloves	0.1	161	21
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
		Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l	
<u>Aclonifen</u>		Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	174
	<u>Vapour</u> (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	20.8
	Re-entry (75th perc.)	0.2	217
	Sum (mean)	0.2	284
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	41.3
	<u>Vapour</u> (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.006	8.8
	Re-entry (75th perc.)	0.08	121
	Sum (mean)	0.09	122

Bystander

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
		Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l	
<u>Aclonifen</u>		Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.3	
	<u>Vapour</u> (95th perc.)	0.0008	
	Deposits (95th perc.)	0.04	
	Re-entry (95th perc.)	0.2	
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.07	
	<u>Vapour</u> (95th perc.)	0.0003	
	Deposits (95th perc.)	0.02	
	Re-entry (95th perc.)	0.08	

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Inspection, irrigation	Dermal transfer coefficient - Total potential exposure [cm²/h]	12500
Crops	High ornamentals	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	1400
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1250
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	3	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.01
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	Aclonifen		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	2		

Appendix – operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	Aclonifen
Concentration of active substance [g a.s./l or kg]	600	Crops	High ornamentals
Area treated [ha/day]	10	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg bw/day]	0.07		
AAOEL [mg/kg bw]			

A 3.1.1 OPEX report – high ornamentals (critical use: 3 L of product/ha; Re-entry activity: cutting, sorting, bundling, carrying)

Assessed uses

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 3	High ornamentals	3.00	l/ha	1	NA	200	300	Outdoor	Downward spraying	Normal	Vehicle-mounted	2-3	0

Operator — short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
		1030	5277	1323
		484	671	178
		14.7	515	129
		12.9	512	128

Operator

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 0 %/75th percentile			
Crop density: Normal			
Number of applications and application rate: 1 x 1.8 kg a.s./ha			
Dermal absorption (concentrate): 10 %			
Dermal absorption (in-use dilution): 50 %			
Aclonifen	M/L: Workwear + Protected hands	0.01	14.7
	App: Workwear + Protected hands		

Worker

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying / Outdoor Work rate: 8 hours/day Interval: NA Body weight: 60 kg TC (potential): 14000 cm ² /h TC (workwear (arms, body and legs covered)): 5000 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1400 cm ² /h TC (gloves): NA cm ² /h			
Number of applications & application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Potential	5	7200	186
Workwear	1.8	2571	141
Workwear and gloves	0.5	720	86
Hands covered, no workwear			

Resident

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l			
Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
<u>Aclonifen</u>			
Resident child Body weight: 10 kg	Drift (75th perc.)	0.1	174
	<u>Vapour</u> (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.01	20.8
	Re-entry (75th perc.)	0.2	217
	Sum (mean)	0.2	284
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.03	41.3
	<u>Vapour</u> (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.006	8.8
	Re-entry (75th perc.)	0.08	121
	Sum (mean)	0.09	122

Bystander

Model data		Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AAOEL
				Season: Not relevant Buffer zone: 2-3 m Drift reduction technology: 0 % Interval between treatments: NA Minimum volume of water: 200 l
				Number of applications and application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 50 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days
Bystander child Body weight: 10 kg		Drift (95th perc.)	0.3	
		Vapour (95th perc.)	0.0008	
		Deposits (95th perc.)	0.04	
		Re-entry (95th perc.)	0.2	
Bystander adult Body weight: 60 kg		Drift (95th perc.)	0.07	
		Vapour (95th perc.)	0.0003	
		Deposits (95th perc.)	0.02	
		Re-entry (95th perc.)	0.08	

Appendix – Operator

Formulation type	Soluble concentrates, emulsifiable concentrate, etc.	Name of active substance	Aclonifen
Concentration of active substance [g a.s./l or kg]	600	Crops	High ornamentals
Area treated [ha/day]	10	Application method	Downward spraying
Dermal absorption [%] (concentrate)	10	Application technique	Vehicle-mounted
Dermal absorption [%] (dilution)	50	Indoor/outdoor	Outdoor
Oral absorption [%]	100	Drift reduction [%]	0
Inhalation absorption [%]	100	Type of cultivation	Normal
Body weight (kg)	60		
AOEL [mg/kg bw /day]	0.07		
AAOEL [mg/kg bw]			

Appendix – Worker

Indoor/outdoor	Outdoor	AOEL [mg/kg bw/day]	0.07
Re-entry activity	Cutting, sorting, bundling, carrying	Dermal transfer coefficient - Total potential exposure [cm²/h]	14000
Crops	High ornamentals	Dermal transfer coefficient - Arm, body and legs covered [cm²/h]	5000
Application method	Downward spraying	Dermal transfer coefficient - Hands, arm, body and legs covered [cm²/h]	1400
Application technique	Vehicle-mounted; manual-hand held; manual-knapsack	Dermal transfer coefficient - Hands covered, no workwear [cm²/h]	
Max. application rate of the product [l or kg/ha]	3	DFR refined worker [µg/cm² foliage per kg a.s./ha]	3
Max. no. of applications	1	DT50 foliar worker [days]	30
Interval between multiple applications [days]	NA	Inhalation task specific factor [ha/h*10 ⁻³]	0.1
Multiple application factor	1		
Body weight (kg)	60		
Name of active substance	<u>Acronifen</u>		
Dermal absorption [%] (dilution)	50		
Inhalation absorption [%]	100		
Time [hours per day]	8		

Lower doses – toxicological assessment report

Information on product and active substance(s)

Product name

AKO600SC

Formulation type

Soluble concentrates, emulsifiable concentrate, etc.

Product category

Herbicide

Name of active substance

Aclonifen

Concentration of active substance in product [g a.s./l or kg]

600

AOEL [mg/kg bw per day]

0.07

AAOEL [mg/kg bw]

Inhalation absorption [%]

100

Oral absorption [%]

100

Dermal absorption [%] (concentrate)

0.49

Assessed uses

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 1	Field crops	1.95	l/ha	4	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 2	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 2	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 2	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 3	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 3	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 3	Low vegetables	1.95	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 4	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 4	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 4	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 5	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 5	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 5	High ornamentals	1.95	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 6	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 6	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 6	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 7	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 7	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 7	Low ornamentals	1.80	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50

Operator

Use 1 : Field crops (Outdoor)

Short term exposure

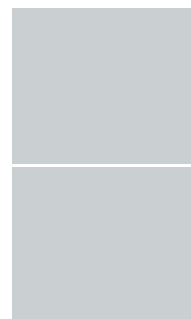
		Aclonifen (% AOEL)
Mixing/loading	Application	Normal & ve- hicle-mounted
		59.7
		45.1

Acute exposure

Aclonifen (%
AOEL)

Mixing/loading Application

Normal & ve-
hicle-mounted



Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Field crops/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
Dermal absorption (concentrate): 0.49 %
Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	45.1
	M/L: Potential exposure App: Potential exposure	0.04	59.7

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AAOEL
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Field crops/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha		
	Dermal absorption (concentrate): 0.49 %		
	Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AAOEL
	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Use 2 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		59.7	2357	756
		45.4	277	89.7
		4.2	232	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	45.1
	M/L: Potential exposure App: Potential exposure	0.04	59.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (277)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (232)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7
Summary data – Acute exposure			
Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 3 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		59.7	2357	756
		45.4	277	89.7
		4.2	232	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading Application		Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	45.1
	M/L: Potential exposure App: Potential exposure	0.04	59.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (277)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (232)
Summary data – Acute exposure			
Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AOEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7
Summary data – Acute exposure			
Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 4 : High ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		109	2357	756
		73.5	277	89.7
		0.9	232	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.05	73.5

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic ic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (277)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (232)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic ic AA- OEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
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High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 5 : High ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		109	2357	756
		73.5	277	89.7
		0.9	232	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
Dermal absorption (concentrate): 0.49 %
Dermal absorption (in use dilution): 35 %

Aclonifen

M/L: Workwear	0.05	73.5
App: Workwear		

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
Dermal absorption (concentrate): 0.49 %
Dermal absorption (in use dilution): 35 %

Aclonifen

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic ic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.17 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (277)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (232)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic ic AA- OEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
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High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 6 : Low ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		55.6	2176	756
		42	255	89.7
 	 	1.1	214	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.08 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	42
	M/L: Potential exposure App: Potential exposure	0.04	55.6

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic AOEL
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Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.08 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (255)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.1	No safe use (214)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
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Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
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Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 7 : Low ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		55.6	2176	756
		42	255	89.7
		1.1	214	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.03	42
	M/L: Potential exposure App: Potential exposure	0.04	55.6

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (255)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.1	No safe use (214)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of system-OEL
Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
		Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
		Application rate: 1 x 1.08 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Worker

Use 1 : Field crops (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation; Outdoor Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
Potential	0.5	731	87

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Workwear	0.06	81.9	0
Workwear and gloves	0.05	73.1	0

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Reaching, picking (all except brassica)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Reaching, picking (all except Brassica); Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 5800 cm ² /h TC (workwear (arms, body and legs covered)): 2500 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 580 cm ² /h TC (gloves): NA cm ² /h			

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Aclonifen Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	1	1357	113
Workwear	0.4	585	77
Workwear and gloves	0.4	136	14

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Inspection, irrigation (all)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Inspection, irrigation (All); Outdoor
Work rate: NA hours/day ; Interval: NA ; Body weight: 60 kg
TC (potential): NA cm²/h
TC (workwear (arms, body and legs covered)): NA cm²/h
TC (workwear (arms, body and legs covered) and gloves): NA cm²/h
TC (gloves): NA cm²/h

Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
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Use 4 : High ornamentals (Outdoor)

Scenario 1 : Cutting, sorting, bundling, carrying

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying; Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	2	2925	147
Workwear	0.2	328	52
Workwear and gloves	0.2	293	47

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation; Outdoor Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	0.5	731	87
Workwear	0.06	81.9	0
Workwear and gloves	0.05	73.1	0

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Cutting, sorting, bundling, carrying

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying: Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 14000 cm ² /h TC (workwear (arms, body and legs covered)): 5000 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1400 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	2.1	3024	148
Workwear	0.8	1080	103
Workwear and gloves	0.2	302	48

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation; Outdoor Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	0.5	675	83
Workwear	0.05	75.6	9

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Workwear and gloves	0.05	67.5	0

Resident

Use 1 : Field crops (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	21.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.1

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Re-entry (75th perc.)	0.07	98.7
	Sum (mean)	0.06	92.8
	Drift (75th perc.)	0.003	4
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	54.8
	Sum (mean)	0.03	46.7

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	21.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.1
	Re-entry (75th perc.)	0.07	98.7
	Sum (mean)	0.06	92.8

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	54.8
	Sum (mean)	0.03	46.7

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	21.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.1
	Re-entry (75th perc.)	0.07	98.7
	Sum (mean)	0.06	92.8

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	54.8
	Sum (mean)	0.03	46.7

Use 4 : High ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	21.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.1
	Re-entry (75th perc.)	0.07	98.7
Resident child Body weight: 10 kg	Sum (mean)	0.06	92.8

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	54.8
	Sum (mean)	0.03	46.7

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	21.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.1
	Re-entry (75th perc.)	0.07	98.7
	Sum (mean)	0.06	92.8

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	54.8
	Sum (mean)	0.03	46.7

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 150 l			
Aclonifen Resident child Body weight: 10 kg	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	26.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0007	1.1
	Re-entry (75th perc.)	0.06	91.1
Sum (mean)		0.06	89.4

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4.9
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.4
	Re-entry (75th perc.)	0.04	50.6
	Sum (mean)	0.03	43.8

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 150 l			
Aclonifen	Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	26.6
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0007	1.1
	Re-entry (75th perc.)	0.06	91.1
Resident child Body weight: 10 kg	Sum (mean)	0.06	89.4

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.003	4.9
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.4
	Re-entry (75th perc.)	0.04	50.6
	Sum (mean)	0.03	43.8

Bystander

Use 1 : Field crops (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l				
Aclonifen	Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
	Drift (95th perc.)	0.03	NA	
	Bystander child Body weight: 10 kg	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander adult Body weight: 60 kg	Re-entry (95th perc.)	0.07	NA
	Drift (95th perc.)	0.007	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.03	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.07	NA
Bystander adult	Drift (95th perc.)	0.007	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.03	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.07	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.007	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 4 : High ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.03	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.07	NA
Bystander adult	Drift (95th perc.)	0.007	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.17 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.03	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.07	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.007	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 150 l			
Aclonifen		Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.04	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.06	NA
Bystander adult	Drift (95th perc.)	0.008	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 150 l			
Aclonifen		Application rate: 1 x 1.08 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.04	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.002	NA
	Re-entry (95th perc.)	0.06	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.008	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.04	NA

Higher doses – toxicological assessment report

Information on product and active substance(s)

Product name	AKO600SC
Formulation type	Soluble concentrates, emulsifiable concentrate, etc.
Product category	Herbicide
Name of active substance	Aclonifen
Concentration of active substance in product [g a.s./l or kg]	600
AOEL [mg/kg bw per day]	0.07
AAOEL [mg/kg bw]	
Inhalation absorption [%]	100

Oral absorption [%]

100

Dermal absorption [%] (concentrate)

0.49

Assessed uses

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/ outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 1	Field crops	3.0	l/ha	4	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 2	Low vegetables	3.0	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 2	Low vegetables	3.0	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 2	Low vegetables	3.0	l/ha	1	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 3	Low vegetables	3.0	l/ha	1	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 3	Low vegetables	3.0	l/ha	1	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 3	Low vegetables	3.0	l/ha	1	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 4	High ornamentals	3.0	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 4	High ornamentals	3.0	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 4	High ornamentals	3.0	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 5	High ornamentals	3.0	l/ha	1	NA	200	300	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 5	High ornamentals	3.0	l/ha	4	NA	200	300	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 5	High ornamentals	3.0	l/ha	4	NA	200	300	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 6	Low ornamentals	2.5	l/ha	4	NA	150	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 6	Low ornamentals	2.5	l/ha	4	NA	150	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 6	Low ornamentals	2.5	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 7	Low ornamentals	2.5	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 7	Low ornamentals	2.5	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 7	Low ornamentals	2.5	l/ha	1	NA	150	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50

Operator

Use 1 : Field crops (Outdoor)

Short term exposure

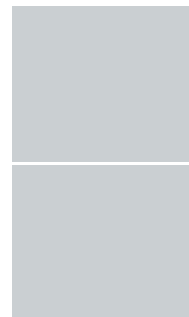
		Aclonifen (% AOEL)
Mixing/loading	Application	Normal & ve- hicle-mounted
		87.4
		66.3

Acute exposure

Aclonifen (%
AOEL)

Mixing/loading Application

Normal & ve-
hicle-mounted



Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Field crops/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.05	66.3
	M/L: Potential exposure App: Potential exposure	0.06	87.4

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AAOEL
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Field crops/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.8 kg a.s./ha		
	Dermal absorption (concentrate): 0.49 %		
	Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of systemic AAOEL
M/L: Workwear App: Workwear			No re- sults!
M/L: NA + NA + NA App: NA + NA + NA			No re- sults!

Use 2 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		87.4	3625	907
		66.3	425	108
		2.5	360	91
		1.7	357	89.4

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system-ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.05	66.3
	M/L: Potential exposure App: Potential exposure	0.06	87.4

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system-ic AA-OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
Dermal absorption (concentrate): 0.49 %
Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.3	No safe use (425)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (357)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system-ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
Dermal absorption (concentrate): 0.49 %
Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (108)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.06	94

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
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Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 3 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		87.4	3625	907
		66.3	425	108
		2.5	360	91
		1.7	357	89.4

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual hand held	Normal & manual knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system-ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.05	66.3
	M/L: Potential exposure App: Potential exposure	0.06	87.4

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.3	No safe use (425)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (357)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system-ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
		Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (108)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.06	91
Summary data – Acute exposure			
Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system-ic AA- OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 4 : High ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		167	3625	907
		112	425	108
		2.4	360	94
		1.3	357	89.4

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (112)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.004	2.1
Summary data – Acute exposure			

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.3	No safe use (425)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (357)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic OEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (108)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.06	94
Summary data – Acute exposure			
Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 5 : High ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		167	3625	907
		112	425	108
		2.4	360	94
		1.3	357	89.4

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (112)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.004	2.1

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.8 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.3	No safe use (425)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (357)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kgic AA-bw]	% of systemic OEL
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High ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
		Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (108)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.06	91
Summary data – Acute exposure			
Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
High ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Use 6 : Low ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		74.3	3021	756
		56.3	354	89.7
		1.5	298	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.5 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.04	56.3
	M/L: Potential exposure App: Potential exposure	0.05	74.3

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
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Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.5 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (354)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (298)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
Crop density: Normal

Aclonifen	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
Crop density: Normal

Aclonifen	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 7 : Low ornamentals (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		74.3	3021	756
		56.3	354	89.7
		1.5	298	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.04	56.3
	M/L: Potential exposure App: Potential exposure	0.05	74.3

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
Low ornamentals/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
		Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (354)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (298)

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
Low ornamentals/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Aclonifen		Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %	
		M/L: Workwear App: Workwear	
		M/L: NA + NA + NA App: NA + NA + NA	No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
Low ornamentals/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
		Application rate: 1 x 1.5 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %	
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Worker

Use 1 : Field crops (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Inspection, irrigation; Outdoor

Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg

TC (potential): 12500 cm²/h

TC (workwear (arms, body and legs covered)): 1400 cm²/h

TC (workwear (arms, body and legs covered) and gloves): 1250 cm²/h

TC (gloves): NA cm²/h

Acetonifen

Application rate: 1 x 1.8 kg a.s./ha

Dermal absorption: 35 %

DFR: 3 µg/cm² foliage per kg a.s./ha

DT50: 30 days

Potential

0.8

1125

105

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Workwear	0.09	126	11
Workwear and gloves	0.08	113	6

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Reaching, picking (all except brassica)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Reaching, picking (all except Brassica); Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 5800 cm ² /h TC (workwear (arms, body and legs covered)): 2500 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 580 cm ² /h TC (gloves): NA cm ² /h			

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha		
	Dermal absorption: 35 %		
	DFR: 3 µg/cm ² foliage per kg a.s./ha		
	DT50: 30 days		
Potential	1.5	2088	132
Workwear	0.6	900	96
Workwear and gloves	0.4	209	32

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Inspection, irrigation (all)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Inspection, irrigation (All); Outdoor
Work rate: NA hours/day ; Interval: NA ; Body weight: 60 kg
TC (potential): NA cm²/h
TC (workwear (arms, body and legs covered)): NA cm²/h
TC (workwear (arms, body and legs covered) and gloves): NA cm²/h
TC (gloves): NA cm²/h

Aclonifen

Application rate: 1 x 1.8 kg a.s./ha
Dermal absorption: 35 %
DFR: 3 µg/cm² foliage per kg a.s./ha
DT50: 30 days

Use 4 : High ornamentals (Outdoor)

Scenario 1 : Cutting, sorting, bundling, carrying

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying; Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	3.2	4500	165
Workwear	0.4	504	71
Workwear and gloves	0.3	450	66

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation; Outdoor Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	0.8	1125	105
Workwear	0.09	126	11
Workwear and gloves	0.08	113	6

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Cutting, sorting, bundling, carrying

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Cutting, sorting, bundling, carrying: Outdoor Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 14000 cm ² /h TC (workwear (arms, body and legs covered)): 5000 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1400 cm ² /h TC (gloves): NA cm ² /h			
Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days			
Potential	2.9	4200	162
Workwear	1.1	1500	118
Workwear and gloves	0.3	420	63

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Inspection, irrigation

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Inspection, irrigation; Outdoor Work rate: 2 hours/day ; Interval: NA ; Body weight: 60 kg TC (potential): 12500 cm ² /h TC (workwear (arms, body and legs covered)): 1400 cm ² /h TC (workwear (arms, body and legs covered) and gloves): 1250 cm ² /h TC (gloves): NA cm ² /h			
Aclonifen Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
Potential	0.7	938	97
Workwear	0.07	105	3

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
Workwear and gloves	0.07	93.8	0

Resident

Use 1 : Field crops (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	33.3
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.001	1.8

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Re-entry (75th perc.)	0.4	152
	Sum (mean)	0.4	142
	Drift (75th perc.)	0.004	6.2
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0005	0.7
	Re-entry (75th perc.)	0.06	84.4
	Sum (mean)	0.05	71.6

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	33.3
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.8
	Re-entry (75th perc.)	0.1	152
	Sum (mean)	0.4	142

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.004	6.2
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0005	0.7
	Re-entry (75th perc.)	0.06	84.4
	Sum (mean)	0.05	71.6

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	33.3
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.8
	Re-entry (75th perc.)	0.1	152
	Sum (mean)	0.4	142

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.004	6.2
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0005	0.7
	Re-entry (75th perc.)	0.06	84.4
	Sum (mean)	0.05	71.6

Use 4 : High ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	33.3
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.8
	Re-entry (75th perc.)	0.1	152
	Sum (mean)	0.4	142

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.004	6.2
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0005	0.7
	Re-entry (75th perc.)	0.06	84.4
	Sum (mean)	0.05	71.6

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	33.3
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.8
	Re-entry (75th perc.)	0.1	152
	Sum (mean)	0.4	142

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.004	6.2
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0005	0.7
	Re-entry (75th perc.)	0.06	84.4
	Sum (mean)	0.05	71.6

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 150 l			
Aclonifen	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.03	37
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.5
	Re-entry (75th perc.)	0.09	127
Resident child Body weight: 10 kg	Sum (mean)	0.09	124

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.005	6.8
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0004	0.6
	Re-entry (75th perc.)	0.05	70.3
	Sum (mean)	0.04	60.7

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 150 l			
Aclonifen Resident child Body weight: 10 kg	Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.03	37
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.004	1.5
	Re-entry (75th perc.)	0.09	127
	Sum (mean)	0.09	124

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Drift (75th perc.)	0.005	6.8
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0004	0.6
	Re-entry (75th perc.)	0.05	70.3
	Sum (mean)	0.04	60.7

Bystander

Use 1 : Field crops (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l				
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days			
	Drift (95th perc.)	0.05	NA	
	Bystander child Body weight: 10 kg	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.004	NA	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander adult Body weight: 60 kg	Re-entry (95th perc.)	0.4	NA
	Drift (95th perc.)	0.01	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.001	NA
	Re-entry (95th perc.)	0.06	NA

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen	Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (95th perc.)	0.05	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.1	NA
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.04	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.06	NA

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.05	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.1	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.01	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.001	NA
	Re-entry (95th perc.)	0.06	NA

Use 4 : High ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.05	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.1	NA
Bystander adult	Drift (95th perc.)	0.01	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.06	NA

Use 5 : High ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 1.8 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.05	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.1	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.01	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.001	NA
	Re-entry (95th perc.)	0.06	NA

Use 6 : Low ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 150 l			
Aclonifen		Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.06	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.003	NA
	Re-entry (95th perc.)	0.09	NA
Bystander adult	Drift (95th perc.)	0.04	NA

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.05	NA

Use 7 : Low ornamentals (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 150 l			
Aclonifen		Application rate: 1 x 1.5 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm² foliage per kg a.s./ha DT50: 30 days	

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.06	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.003	NA
	Re-entry (95th perc.)	0.09	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.04	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.004	NA
	Re-entry (95th perc.)	0.05	NA

Tankmix doses – toxicological assessment report

Information on product and active substance(s)

Product name

AKO600SC

Formulation type

Soluble concentrates, emulsifiable concentrate, etc.

Product category

Herbicide

Name of active substance

Aclonifen

Concentration of active substance in product [g a.s./l or kg]

600

AOEL [mg/kg bw per day]

0.07

AAOEL [mg/kg bw]

Inhalation absorption [%]	100
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Oral absorption [%]	100
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Dermal absorption [%] (concentrate)	0.49
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Assessed uses

Use	Crops	Max. ap- plication rate of the product [l or kg/ha]	Unit	Max. no. of appli- cations	Interval between multiple applica- tions [days]	Min. vol- ume wa- ter [l/ha]	Max. vol- ume wa- ter [l/ha]	Indoor/ outdoor	Applica- tion method	Type of cultiva- tion	Applica- tion tech- nique	Buffer strip [m]	Drift re- duction [%]
Use 1	Low vegeta- bles	2.0	l/ha	4	NA	200	400	Outdoor	Down- ward spraying	normal	Vehicle- mounted	10	50
Use 1	Low vegeta- bles	2.0	l/ha	4	NA	200	400	Outdoor	Down- ward spraying	normal	Manual- Hand held	10	50
Use 1	Low vegeta- bles	2.0	l/ha	4	NA	200	400	Outdoor	Down- ward spraying	normal	Manual- Knapsack	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 2	Low vegetables	2.0	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 2	Low vegetables	2.0	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 2	Low vegetables	2.0	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 3	Low vegetables	0.8	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 3	Low vegetables	0.8	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50
Use 3	Low vegetables	0.8	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50
Use 4	Low vegetables	0.8	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Vehicle-mounted	10	50
Use 4	Low vegetables	0.8	l/ha	4	NA	200	400	Outdoor	Downward spraying	normal	Manual Hand held	10	50

Use	Crops	Max. application rate of the product [l or kg/ha]	Unit	Max. no. of applications	Interval between multiple applications [days]	Min. volume water [l/ha]	Max. volume water [l/ha]	Indoor/outdoor	Application method	Type of cultivation	Application technique	Buffer strip [m]	Drift reduction [%]
Use 4	Low vegetation	0.8	l/ha	1	NA	200	400	Outdoor	Downward spraying	normal	Manual Knapsack	10	50

Operator

Use 1 : Low vegetables (Outdoor)

Short term exposure

Aclonifen (% AOEL)

Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
		64	2417	756
		46.4	284	89.7
		1.2	238	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.2 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	46.1
	M/L: Potential exposure App: Potential exposure	0.04	61

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.2 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (284)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (238)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7
Summary data – Acute exposure			
Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 2 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual-hand held	Normal & manual- knapsack
		61	2417	756
		46.4	284	89.7
		1.2	238	74.5

Acute exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system-ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.2 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.03	46.1
	M/L: Potential exposure App: Potential exposure	0.04	61

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 1.2 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.2	No safe use (284)
	M/L: Workwear + Protected hands + FP2, P2 and similar App: Workwear + Protected hands + FP2, P2 and similar	0.2	No safe use (238)

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50%
 Crop density: Normal

Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
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Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 3 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		27.6	96.8	75.6
		20.7	114	89.7
		4	96.4	75.8

Acute exposure

Aclonifen (% AOEL)

Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 0.48 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in-use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.01	20.7
	M/L: Potential exposure App: Potential exposure	0.02	27.6

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
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Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50%
 Crop density: Normal

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2 : Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (114)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.07	96.1
Summary data – Acute exposure			
Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50% Crop density: Normal			

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
	Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
Aclonifen	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		
	M/L: Workwear App: Workwear	0.06	89.7
Summary data – Acute exposure			
Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- ic OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Aclonifen	Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- dose AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Use 4 : Low vegetables (Outdoor)

Short term exposure

		Aclonifen (% AOEL)		
Mixing/loading	Application	Normal & ve- hicle-mounted	Normal & manual hand held	Normal & manual knapsack
		27.6	96.8	75.6
		20.7	114	89.7
		4	96.4	75.8

Acute exposure

Aclonifen (% AOEL)

Mixing/loading	Application	Normal & vehicle-mounted	Normal & manual-hand held	Normal & manual-knapsack
				
				

Scenario 1 : Normal, downward spraying, vehicle-mounted

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen	M/L: Workwear App: Workwear	0.01	20.7
	M/L: Potential exposure App: Potential exposure	0.02	27.6

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
Low vegetables/Outdoor/Downward spraying/Vehicle-mounted/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in-use dilution): 35 %			
Aclonifen			

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
	M/L: Workwear App: Workwear		No re- sults!
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Scenario 2: Normal, downward spraying, manual hand held

Summary data – Short term exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 0.48 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen	M/L: Workwear App: Workwear	0.08	No safe use (114)
	M/L: Workwear + Protected hands App: Workwear + Protected hands	0.07	96.1

Summary data – Acute exposure

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of systemic AA-OEL
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Low vegetables/Outdoor/Downward spraying/Manual hand held/Drift reduction: 50%
 Crop density: Normal

Application rate: 1 x 0.48 kg a.s./ha
 Dermal absorption (concentrate): 0.49 %
 Dermal absorption (in use dilution): 35 %

Aclonifen

Model data	Level of PPE	Total absorbed dose [mg/kg bw]	% of system-ic AA-OEL
	M/L: Workwear App: Workwear		No results!
	M/L: NA + NA + NA App: NA + NA + NA		No results!

Scenario 3 : Normal, downward spraying, manual knapsack

Summary data – Short term exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw per day]	% of system- ic AOEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear	0.06	89.7
	App: Workwear		

Summary data – Acute exposure

Model data	Level of PPE	Total ab- sorbed dose [mg/kg bw]	% of system- ic AA- OEL
Low vegetables/Outdoor/Downward spraying/Manual knapsack/Drift reduction: 50% Crop density: Normal			
Application rate: 1 x 0.48 kg a.s./ha Dermal absorption (concentrate): 0.49 % Dermal absorption (in use dilution): 35 %			
Aclonifen	M/L: Workwear		No re- sults!
	App: Workwear		

Model data	Level of PPE	Total ab- sorbed dose [mg/kgic AA- bw]	% of system- OEL
	M/L: NA + NA + NA App: NA + NA + NA		No re- sults!

Worker

Use 1 : Low vegetables (Outdoor)

Scenario 1 : Reaching, picking (all except brassica)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Reaching, picking (all except Brassica); Outdoor
Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg
TC (potential): 5800 cm²/h
TC (workwear (arms, body and legs covered)): 2500 cm²/h
TC (workwear (arms, body and legs covered) and gloves): 580 cm²/h
TC (gloves): NA cm²/h

Acenifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days
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Potential	4	1392	114
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Workwear	0.4	600	78
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Workwear and gloves	0.1	139	15
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Use 2 : Low vegetables (Outdoor)

Scenario 1 : Inspection, irrigation (all)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Inspection, irrigation (All); Outdoor
Work rate: NA hours/day ; Interval: NA ; Body weight: 60 kg
TC (potential): NA cm²/h
TC (workwear (arms, body and legs covered)): NA cm²/h
TC (workwear (arms, body and legs covered) and gloves): NA cm²/h
TC (gloves): NA cm²/h

Acetonifen

Application rate: 1 x 1.2 kg a.s./ha
Dermal absorption: 35 %
DFR: 3 µg/cm² foliage per kg a.s./ha
DT50: 30 days

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Reaching, picking (all except brassica)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Reaching, picking (all except Brassica); Outdoor
Work rate: 8 hours/day ; Interval: NA ; Body weight: 60 kg
TC (potential): 5800 cm²/h
TC (workwear (arms, body and legs covered)): 2500 cm²/h
TC (workwear (arms, body and legs covered) and gloves): 580 cm²/h
TC (gloves): NA cm²/h

Acetonifen

Application rate: 1 x 0.48 kg a.s./ha
Dermal absorption: 35 %
DFR: 3 µg/cm² foliage per kg a.s./ha
DT50: 30 days

Potential	0.4	557	75
Workwear	0.2	240	38

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Workwear and gloves	0.04	55.7	0
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Use 4 : Low vegetables (Outdoor)

Scenario 1 : Inspection, irrigation (all)

Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL	Re-entry restriction [days]
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Inspection, irrigation (All); Outdoor

Work rate: NA hours/day ; Interval: NA ; Body weight: 60 kg

TC (potential): NA cm²/h

TC (workwear (arms, body and legs covered)): NA cm²/h

TC (workwear (arms, body and legs covered) and gloves): NA cm²/h

TC (gloves): NA cm²/h

Aclonifen

Application rate: 1 x 0.48 kg a.s./ha

Dermal absorption: 35 %

DFR: 3 µg/cm² foliage per kg a.s./ha

DT50: 30 days

Resident

Use 1 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200l			
Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days		
	Drift (75th perc.)	0.02	22.2
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0008	1.2
	Re-entry (75th perc.)	0.07	101
	Sum (mean)	0.07	95.1
Resident child Body weight: 10 kg	Drift (75th perc.)	0.003	4.1
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
	Re-entry (75th perc.)	0.04	56.3
	Sum (mean)	0.03	47.9

Use 2 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA;
Minimum volume of water: 200 l

Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days
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	Drift (75th perc.)	0.02	22.2
	Vapour (75th perc.)	0.0008	1.1
Resident child Body weight: 10 kg	Deposits (75th perc.)	0.0008	1.2
	Re-entry (75th perc.)	0.07	101
	Sum (mean)	0.07	95.1
Resident adult	Drift (75th perc.)	0.003	4.1

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Body weight: 60 kg	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.04	56.3
	Sum (mean)	0.03	47.9

Use 3 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 0.48 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
	Drift (75th perc.)	0.006	8.9
	Vapour (75th perc.)	0.0008	1.1
	Deposits (75th perc.)	0.0003	0.5
Resident child Body weight: 10 kg	Re-entry (75th perc.)	0.03	40.5

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Sum (mean)	0.03	38.7
	Drift (75th perc.)	0.001	1.6
	Vapour (75th perc.)	0.0003	0.4
	Deposits (75th perc.)	0.0001	0.2
	Re-entry (75th perc.)	0.02	22.5
	Sum (mean)	0.01	19.4

Use 4 : Low vegetables (Outdoor)

Scenario 1 : Season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 0.48 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Resident child Body weight: 10 kg	Drift (75th perc.)	0.006	8.9
	Vapour (75th perc.)	0.0008	1.1

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Resident adult Body weight: 60 kg	Deposits (75th perc.)	0.0003	0.5
	Re-entry (75th perc.)	0.03	40.5
	Sum (mean)	0.03	38.7
	Drift (75th perc.)	0.004	1.6
	Vapour (75th perc.)	0.0003	0.4
	Sum (mean)	0.04	19.4

Bystander

Use 1 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA;
 Minimum volume of water: 200l

Aclonifen

Application rate: 1 x 1.2 kg a.s./ha
 Dermal absorption: 35 %
 DFR: 3 µg/cm² foliage per kg a.s./ha
 DT50: 30 days

	Drift (95th perc.)	0.03	NA
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	Vapour (95th perc.)	0.0008	NA
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Bystander child
 Body weight: 10 kg

	Deposits (95th perc.)	0.002	NA
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	Re-entry (95th perc.)	0.07	NA
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	Drift (95th perc.)	0.007	NA
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	Vapour (95th perc.)	0.0003	NA
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Bystander adult
 Body weight: 60 kg

	Deposits (95th perc.)	0.004	NA
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	Re-entry (95th perc.)	0.04	NA
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Use 2 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Outdoor; Season:Not relevant; Buffer zone:10m; Drift reduction:50%; Interval between treatments:NA;
 Minimum volume of water: 200 l

Aclonifen	Application rate: 1 x 1.2 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days
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Bystander child Body weight: 10 kg	Drift (95th perc.)	0.03	NA
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Vapour (95th perc.)	0.0008	NA
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Deposits (95th perc.)	0.002	NA
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Re-entry (95th perc.)	0.07	NA
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Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.007	NA
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Vapour (95th perc.)	0.0003	NA
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Deposits (95th perc.)	0.001	NA
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Re-entry (95th perc.)	0.04	NA
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Use 3 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA;
 Minimum volume of water: 200 l

Aclonifen

Application rate: 1 x 0.48 kg a.s./ha
 Dermal absorption: 35 %
 DFR: 3 µg/cm² foliage per kg a.s./ha
 DT50: 30 days

Bystander child Body weight: 10 kg	Drift (95th perc.)	0.01	NA
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Vapour (95th perc.)	0.0008	NA
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Deposits (95th perc.)	0.0009	NA
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Re-entry (95th perc.)	0.03	NA
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Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.003	NA
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Vapour (95th perc.)	0.0003	NA
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Deposits (95th perc.)	0.0004	NA
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Re-entry (95th perc.)	0.02	NA
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Use 4 : Low vegetables (Outdoor)

Scenario 1 : Outdoor, season not relevant, drift reduction 50 [%] buffer strip 10 [m]

Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
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Model data	Level of PPE	Total absorbed dose [mg/kg bw per day]	% of systemic AOEL
Outdoor; Season: Not relevant; Buffer zone: 10m; Drift reduction: 50%; Interval between treatments: NA; Minimum volume of water: 200 l			
Aclonifen		Application rate: 1 x 0.48 kg a.s./ha Dermal absorption: 35 % DFR: 3 µg/cm ² foliage per kg a.s./ha DT50: 30 days	
Bystander child Body weight: 10 kg	Drift (95th perc.)	0.01	NA
	Vapour (95th perc.)	0.0008	NA
	Deposits (95th perc.)	0.0009	NA
	Re-entry (95th perc.)	0.03	NA
Bystander adult Body weight: 60 kg	Drift (95th perc.)	0.003	NA
	Vapour (95th perc.)	0.0003	NA
	Deposits (95th perc.)	0.0004	NA
	Re-entry (95th perc.)	0.02	NA

PEER REVIEW – OPEX 1.1.1

PEER REVIEW – OPEX 1.1.1 – MAXIMUM DOSES

OPERATOR

Application method	PPE/RPE*	%AOEL	%AAOEL
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	134	
	MLA: Workwear + Gloves	10.1	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	66.3	
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	134	
	MLA: Workwear + Gloves	10.1	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	66.3	
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	134	
	MLA: Workwear + Gloves	10.1	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	66.3	
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	256	

Application method	PPE/RPE*	%AOEL	%AAOEL
ward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear + Gloves	7.9	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	112	
	MLA: Workwear + Gloves	2.1	
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	256	
	MLA: Workwear + Gloves	7.9	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	112	
	MLA: Workwear + Gloves	2.1	
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	113	
	ML: Workwear + Gloves; AP: Workwear	97.6	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	56.3	
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	113	
	ML: Workwear + Gloves; AP: Workwear	97.6	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	56.3	

*PPE/RPE: personal protective equipment/respiratory protective equipment

WORKER

Re-entry task	PPE	%AOEL
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Re-entry task	PPE	%AOEL
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	126
	Workwear and gloves	113
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation (all)	Workwear	126
	Workwear and gloves	113
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Reaching, picking (all except Brassica)	Workwear	900
	Workwear and gloves	209
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	126
	Workwear and gloves	113
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Cutting, sorting, bundling, carrying	Workwear	504
	Workwear and gloves	450
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	105
	Workwear and gloves	93.8
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Cutting, sorting, bundling, carrying	Workwear	1500
	Workwear and gloves	420

RESIDENT and BYSTANDER

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	122	1.1	15.2	152	200
Resident adult	28.9	0.4	6.1	84.4	85.7
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	6.2	152	172
Resident adult	14.8	0.4	2.5	84.4	77
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	61	1.1	7.6	152	161
Resident adult	14.5	0.4	3.1	84.4	76.7
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	3.1	152	147
Resident adult	7.4	0.4	1.3	84.4	72.3
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	122	1.1	15.2	152	200
Resident adult	28.9	0.4	6.1	84.4	85.7
Bystander child					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	6.2	152	172
Resident adult	14.8	0.4	2.5	84.4	77
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	61	1.1	7.6	152	161
Resident adult	14.5	0.4	3.1	84.4	76.7
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	3.1	152	147
Resident adult	7.4	0.4	1.3	84.4	72.3
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	122	1.1	15.2	152	200
Resident adult	28.9	0.4	6.1	84.4	85.7
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	6.2	152	172
Resident adult	14.8	0.4	2.5	84.4	77
Bystander child					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	61	1.1	7.6	152	161
Resident adult	14.5	0.4	3.1	84.4	76.7
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	3.1	152	147
Resident adult	7.4	0.4	1.3	84.4	72.3
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	122	1.1	15.2	152	200
Resident adult	28.9	0.4	6.1	84.4	85.7
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	6.2	152	172
Resident adult	14.8	0.4	2.5	84.4	77
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	61	1.1	7.6	152	161
Resident adult	14.5	0.4	3.1	84.4	76.7
Bystander child					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	3.1	152	147
Resident adult	7.4	0.4	1.3	84.4	72.3
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	122	1.1	15.2	152	200
Resident adult	28.9	0.4	6.1	84.4	85.7
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	6.2	152	172
Resident adult	14.8	0.4	2.5	84.4	77
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	61	1.1	7.6	152	161
Resident adult	14.5	0.4	3.1	84.4	76.7
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.8kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	3.1	152	147
Resident adult	7.4	0.4	1.3	84.4	72.3
Bystander child					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	136	1.1	12.7	127	185
Resident adult	32.1	0.4	5.1	70.3	75.2
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	90.4	1.1	5.2	127	155
Resident adult	16.4	0.4	2.1	70.3	66.3
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	67.8	1.1	6.3	127	144
Resident adult	16.1	0.4	2.6	70.3	65.8
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	45.2	1.1	2.6	127	129
Resident adult	8.2	0.4	1	70.3	61.4
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	136	1.1	12.7	127	185
Resident adult	32.1	0.4	5.1	70.3	75.2
Bystander child					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	90.4	1.1	5.2	127	155
Resident adult	16.4	0.4	2.1	70.3	66.3
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	67.8	1.1	6.3	127	144
Resident adult	16.1	0.4	2.6	70.3	65.8
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.5kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	45.2	1.1	2.6	127	129
Resident adult	8.2	0.4	1	70.3	61.4
Bystander child					
Bystander adult					

PEER REVIEW — OPEX 1.1.1 — LOWER DOSES

OPERATOR

Application method	PPE/RPE*	%AOEL	%AAOEL
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	89	

Application method	PPE/RPE	%AOEL	%AAOEL
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	45.1	
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	89	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	45.1	
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	89	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	45.1	
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	167	
	MLA: Workwear + Gloves	5.4	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	73.5	
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	167	
	MLA: Workwear + Gloves	5.4	

Application method	PPE/RPE*	%AOEL	%AAOEL
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	73.5	
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	82.5	
Manual Hand held, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	255	
	MLA: Workwear + Gloves + FP2, P2 and similar	214	
Manual Knapsack, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	89.7	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	42	
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	82.5	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	42	
*PPE/RPE: personal protective equipment/respiratory protective equipment			

WORKER

Re-entry task	PPE	%AOEL
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	81.9

Re-entry task	PPE	%AOEL
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation (all)	Workwear	81.9
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Reaching, picking (all except Brassica)	Workwear	585
	Workwear and gloves	136
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	81.9
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha, 200-300 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Cutting, sorting, bundling, carrying	Workwear	328
	Workwear and gloves	293
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation	Workwear	75.6
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha, 150-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Cutting, sorting, bundling, carrying	Workwear	1080
	Workwear and gloves	302

RESIDENT and BYSTANDER

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
AKO600SC Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	79.3	1.1	9.9	98.7	130
Resident adult	18.8	0.4	4	54.8	55.8
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	52.9	1.1	4.1	98.7	112
Resident adult	9.6	0.4	1.6	54.8	50.2
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	39.6	1.1	4.9	98.7	105
Resident adult	9.4	0.4	2	54.8	50
Bystander child					
Bystander adult					
Use 1: Field crops, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	26.4	1.1	2	98.7	95.9
Resident adult	4.8	0.4	0.8	54.8	47.2
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	79.3	1.1	9.9	98.7	130
Resident adult	18.8	0.4	4	54.8	55.8
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	52.9	1.1	4.1	98.7	112
Resident adult	9.6	0.4	1.6	54.8	50.2
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	39.6	1.1	4.9	98.7	105
Resident adult	9.4	0.4	2	54.8	50
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	26.4	1.1	2	98.7	95.9
Resident adult	4.8	0.4	0.8	54.8	47.2
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
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Resident adult	18.8	0.4	4	54.8	55.8
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	52.9	1.1	4.1	98.7	112
Resident adult	9.6	0.4	1.6	54.8	50.2
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	39.6	1.1	4.9	98.7	105
Resident adult	9.4	0.4	2	54.8	50
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	26.4	1.1	2	98.7	95.9
Resident adult	4.8	0.4	0.8	54.8	47.2
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	79.3	1.1	9.9	98.7	130
Resident adult	18.8	0.4	4	54.8	55.8
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	52.9	1.1	4.1	98.7	112
Resident adult	9.6	0.4	1.6	54.8	50.2
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	39.6	1.1	4.9	98.7	105
Resident adult	9.4	0.4	2	54.8	50
Bystander child					
Bystander adult					
Use 4: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	26.4	1.1	2	98.7	95.9
Resident adult	4.8	0.4	0.8	54.8	47.2
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	79.3	1.1	9.9	98.7	130
Resident adult	18.8	0.4	4	54.8	55.8
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	52.9	1.1	4.1	98.7	112
Resident adult	9.6	0.4	1.6	54.8	50.2
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	39.6	1.1	4.9	98.7	105
Resident adult	9.4	0.4	2	54.8	50
Bystander child					
Bystander adult					
Use 5: High ornamentals, Outdoor, 1 x 1.17kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	26.4	1.1	2	98.7	95.9
Resident adult	4.8	0.4	0.8	54.8	47.2
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	97.6	1.1	9.1	91.1	134
Resident adult	23.1	0.4	3.7	50.6	54.3
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	65.1	1.1	3.7	91.1	112
Resident adult	11.8	0.4	1.5	50.6	47.9
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	48.8	1.1	4.6	91.1	104
Resident adult	11.6	0.4	1.8	50.6	47.5
Bystander child					
Bystander adult					
Use 6: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	32.5	1.1	1.9	91.1	93
Resident adult	5.9	0.4	0.8	50.6	44.3
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	97.6	1.1	9.1	91.1	134
Resident adult	23.1	0.4	3.7	50.6	54.3
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Resident child	65.4	1.4	3.7	91.4	112
Resident adult	11.8	0.4	1.5	50.6	47.9
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	48.8	1.4	4.6	91.4	104
Resident adult	11.6	0.4	1.8	50.6	47.5
Bystander child					
Bystander adult					
Use 7: Low ornamentals, Outdoor, 1 x 1.08kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	32.5	1.4	1.9	91.4	93
Resident adult	5.9	0.4	0.8	50.6	44.3
Bystander child					
Bystander adult					

PEER REVIEW OPEX 1.1.1 TANK MIX DOSES ACLONIFEN AKO 600 SC

OPERATOR

Application method	PPE/RPE ^a	%AOEL	%AAOEL
AKO600SC Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	91.4	
Vehicle mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	46.4	
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			

Application method	PPE/RPE*	%AOEL	%AAOEL
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	91.1	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	46.1	
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	38.7	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	20.7	
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	38.7	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	20.7	

*PPE/RPE: personal protective equipment/respiratory protective equipment

WORKER

Re-entry task	PPE	%AOEL
AKO600SC Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation (all)	Workwear	84
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Reaching, picking (all except Brassica)	Workwear	600
	Workwear and gloves	139

Re-entry task	PPE	%AOEL
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation (all)	Workwear	33.6
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Reaching, picking (all except Brassica)	Workwear	240
	Workwear and gloves	55.7

RESIDENT and BYSTANDER

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
AKO600SC Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	10.1	101	134
Resident adult	19.3	0.4	4.1	56.3	57.3
Bystander child					
Bystander adult					
Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	54.2	1.1	4.2	101	115
Resident adult	9.9	0.4	1.7	56.3	51.5
Bystander child					
Bystander adult					
Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	5.1	101	108
Resident adult	9.6	0.4	2	56.3	51.3
Bystander child					
Bystander adult					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Use 1: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	27.1	1.1	2.1	101	98.3
Resident adult	4.9	0.4	0.8	56.3	48.4
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	81.3	1.1	10.1	101	134
Resident adult	19.3	0.4	4.1	56.3	57.3
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	54.2	1.1	4.2	101	115
Resident adult	9.9	0.4	1.7	56.3	51.5
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	40.7	1.1	5.1	101	108
Resident adult	9.6	0.4	2	56.3	51.3
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 1.2kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	27.1	1.1	2.1	101	98.3
Resident adult	4.9	0.4	0.8	56.3	48.4
Bystander child					
Bystander adult					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	32.5	1.1	4.1	40.5	54.2
Resident adult	7.7	0.4	1.6	22.5	23.1
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	21.7	1.1	1.7	40.5	46.6
Resident adult	3.9	0.4	0.7	22.5	20.8
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	16.3	1.1	2	40.5	43.8
Resident adult	3.9	0.4	0.8	22.5	20.7
Bystander child					
Bystander adult					
Use 3: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	10.8	1.1	0.8	40.5	40
Resident adult	2	0.4	0.3	22.5	19.6
Bystander child					
Bystander adult					
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	32.5	1.1	4.1	40.5	54.2
Resident adult	7.7	0.4	1.6	22.5	23.1
Bystander child					
Bystander adult					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	21.7	1.1	1.7	40.5	46.6
Resident adult	3.9	0.4	0.7	22.5	20.8
Bystander child					
Bystander adult					
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	16.3	1.1	2	40.5	43.8
Resident adult	3.9	0.4	0.8	22.5	20.7
Bystander child					
Bystander adult					
Use 4: Low vegetables, Outdoor, 1 x 0.48kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	10.8	1.1	0.8	40.5	40
Resident adult	2	0.4	0.3	22.5	19.6
Bystander child					
Bystander adult					

PEER REVIEW — OPEX 1.1.1 — TANK MIX DOSES — CLOMAZONE — BOA PRO 480 EC
 OPERATOR

Application method	PPE/RPE*	%AOEL	%AAOEL
BOA PRO 480 EC Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	77.4	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	73.7	

Application method	PPE/RPE*	%AOEL	%AAOEL
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure) or % of AAOEL (acute exposure)			
Vehicle-mounted, Downward spraying, drift reduction: 0%, crop density: normal	MLA: Workwear	77.4	
Vehicle-mounted, Downward spraying, drift reduction: 50%, crop density: normal	MLA: Workwear	73.7	

*PPE/RPE: personal protective equipment/respiratory protective equipment

WORKER

Re-entry task	PPE	%AOEL
BOA PRO 480 EC Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Inspection, irrigation (all)	Workwear	7.4
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha, 200-400 L water/ha Model: EFSA Opex (v1.1.1) exposure estimates as % of AOEL (short term exposure)		
Reaching, picking (all except Brassica)	Workwear	50.5

RESIDENT and BYSTANDER

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
BOA PRO 480 EC Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	6.8	0.6	0.8	8.5	11.7
Resident adult	1.6	0.2	0.3	4.7	5
Bystander child					
Bystander adult					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	4.6	0.6	0.3	8.5	10.1
Resident adult	0.8	0.2	0.1	4.7	4.5
Bystander child					
Bystander adult					
Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	3.4	0.6	0.4	8.5	9.6
Resident adult	0.8	0.2	0.2	4.7	4.5
Bystander child					
Bystander adult					
Use 1: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	2.3	0.6	0.2	8.5	8.8
Resident adult	0.4	0.2	0.07	4.7	4.2
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	6.8	0.6	0.8	8.5	11.7
Resident adult	1.6	0.2	0.3	4.7	5
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 0 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	4.6	0.6	0.3	8.5	10.1
Resident adult	0.8	0.2	0.1	4.7	4.5
Bystander child					
Bystander adult					

Exposure pathway	Spray drift	Vapour	Surf. deposits	Entry	All pathways (mean)
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 2-3 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	3.4	0.6	0.4	8.5	9.6
Resident adult	0.8	0.2	0.2	4.7	4.5
Bystander child					
Bystander adult					
Use 2: Low vegetables, Outdoor, 1 x 0.096kg a.s./ha Season: Not relevant, Buffer 5 m, Drift reduction 50 % Model: EFSA Opex (v1.1.1) results expressed as % of AOEL (short term exposure for residents) or % of AAOEL (acute exposure for bystanders)					
Resident child	2.3	0.6	0.2	8.5	8.8
Resident adult	0.4	0.2	0.07	4.7	4.2
Bystander child					
Bystander adult					