Document T Summary of the fate and behaviour in the environment iodosulfuron-methyl-sodium + mefenpyr-diethyl OD 400 (100+300 g/b) Data Requirements EU Regulation (107/2009 & EU Regulation 284/2013 Document MCP Section 9: Fate and behaviour in the environment According to the guidance document, SANCO 10181/2013, for preparing desires for the approval of a chemical According to the guidance document, SANCO 10481/2013, for preparing descirence of a chemical active substance 20\$5-05-27 Author(s) Bayer CropScience

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Version history

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CP 9 FATE AND BEHAVIOUR IN THE ENVIRONMENT

This document contains updated calculations for the predicted environmental concentrations of iodosulfuron and its metabolites in soil and water. The reports submitted for the first Ecopopean approval are not included in this document or in the baseline dossier as the care calculations which were not performed to the current standards and thus are not considered to be relevant.

Use pattern considered in the environmental exposure and risk assessmen

Table CP 9-1: Intended application pattern

Сгор	Timing of application (range)	Number of applications	Application interval [days]	label rate	Maximum application rate individual treatment [] [g/ha] [adosulfuyon- Metenpyr- methyl-sodium application rate []
Winter	BBCH	1 8) Orl (\$ 010 × 30°
cereals	13-32				
Winter	BBCH	1 Q		0.075	D 72 A 22.5
cereals	20-32	1 0 4			\$ 75 \$ \$\tag{22.5}

Definition of the residue for risk assessment

Justification for the residue definition for risk assessment is provided in MSA Se

Definition of the residue for risk assessment Table CP 9-2

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efinition of the residu	ue for risk assessment	b
		* C
istification for the reside	e definition for risk assessment is provided in Mich	A Se
able CP 9- 2 Definition	of the residue for risk assessment	
Compartment	definition for risk assessment is provided in MC of the residue for risk assessment Compound / Code Iodosulfuron-methyl-sodrum AE F055736 AE F145740 AE 0002166 AE F061778 BCS-CW81253 AE 0000119 AE F059411 same as soit	
	Iodosulhyron-methyl-sodium	
	AE F6757366 0 0	
, Q	AEF1457417 0	
	A A T F 145740	
Soil O	O) AE 0002N66 O' V	
3 9 ⁷	AE IO617/8	
A S	© BC2-6M81623	
	AGE 0009119	
Groundwater	AE F05/5736 AE F145740 AE 0002\166 AE F05/178 AE 0000\19 AE F05\411 AE F05\41	
Oloura water	Ioansulfuror-methol-sodium	
	AE F078736	
	AE E45741	
	AEØ14574 0	
	* & 0002186	
	Ø 3AE F16Q778	
Curto	© BCS-@W81253	
Surface water) [™]	
	AE F059411	
	AE 0014966	
	AE 0034855	
	AE 1234964	
⊳ Õ _x	AE F159737	
<u> </u>	BCS-CW81283 AE 0000119 AE F0S9411 Same as soit Iodosulfuron-methyl-sodium AE F125741 AE 0002166 AE F1Q778 BCS-GW81253 AE 0000119 AE F059411 AE 0014966 AE 0034855 AE 1234964 AE F159737 AE F154781 Iodosulfuron-methyl-sodium	
Air	Iodosulfuron-methyl-sodium	

CP 9.1 Fate and behaviour in soil

Fate and behaviour of iodosulfuron-methyl-sodium in soil were assessed in the MCA document (Section 7) of the current renewal dossier based on the application of the active substance in aboratory studies and of formulated iodosulfuron-methyl-sodium in soil field dissipation studies. The behaviour of the active substance observed in the field studies is driven by the properties of the active substance molecule, whereas the impact of the formulation is considered negligible. The endpoints derived from these field studies are therefore related to the active substance. Together with the endpoints from the C laboratory studies they are considered as appropriate to assess the exposure of Godosulfuron methyle sodium after application of the formulation IMS+MPR OD 400 (100+300).

Laboratory studies assessing the fate and behaviour of the preparation in soil have not been performed.

Rate of degradation in so **CP 9.1.1**

CP 9.1.1.1 Laboratory studies

Experimental studies with the repres Document MCA 7.1.2.1.

CP 9.1.1.2 Field studies

Experimental studies with the representative formulation have not been performed. Please refer to Document MCA 7.1, 2.1.

CP 9.1.1.2.2 Soil accumulation studies

Please refer to Document MCA 7,1,2,2,2.

CP 9.1.2 Mobility in the soil

Experimental studies with the representative formulation have not been performed. Please refer to Document MCA 7,1,2,2,2.

ntative formulation have not been performed. Please refer to Experimental studies with Document MOA 7.10.

Lysimeter studies

Please refer to Document MC

eld leaching studies

CP 9.1.3 Estimation of concentrations in soil

Predicted environmental concentrations in soil (PEC_S)

Report:	KCP 9.1.3 /01; , L.; , B.;2014; M-476705-01
Title:	Iodosulfuron-methyl-sodium (IMS) and metabolites: PEC _{soil} EUR - Use in winter
	cereals in Europe
Report No:	EnSa-14-0114
Document No:	M-476705-01-1
Guidelines:	EU Commission, 2000, Guidance Document on Persistence in Soil (Working
	Document), 9188/VI/97 rev. 8 🐠 🧳 💮 💮
	FOCUS 1997, Soil persistence models and EU registration
	FOCUS, 2002, Generic Guidance for FOCUS Groundwater Scenarios, Version 1.1
GLP/GEP:	

Methods and Materials:

The predicted environmental concentrations in soil (PEC soil) of iodosulfuron-methyl-sodium and its metabolites were estimated based on a first tier approach using a Microsoff Excel spreadsheet. A bulk density of 1.5 kg/L and a soil mixing depth of 5 cm were used as recommended by FOCUS (2997) and EU Commission (1995, 2000). Detailed application data used for singulation of PEC soil were compiled in Table CP 9.1.3-1.

Application pattern used for PECsoil calculations of iodoxulfuron-methyl-sodium Table CP 9.1.3- 1:

Individual Crop	FOCUS Frop Used for Interception		Applic Interval	Plant Interception	BBCH Stage	Amount reaching soil per season application [g a.s./ha]
Winter cereals GAP & Simulation	Winter coreals			25@	13-32	1 × 7.50
Winter cereals, GAP & Simulation	winter cereals	7.5°	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	30	20-32	1 × 3.75

Substance Specific Parameters:

PEC_{soil} calculations were based on the maximum PT₅₀ of baboratory studies; normalized to 20°C and 100 % field capacity according to FOCUS (2000). Further compound specific input parameters are summarized below.

Input parameters of iodosulfuron-methyl-sodium and its metabolites for PECsoil **Table CP 9.1.3-2:**

Compound	DT50 1)	Max. occur. in soil	Molar mass	Molar mass correction		ching soil per pplication
	[days]	[%]	[g/mol]	factor	10@a.s./ha	7.50g a.s./ha
Iodosulfuron- methyl-sodium	12.2	100	529.3	1	7.5	3.75
AE F075736*	66.7	88.5	381.4	0.7206	4.78	Q39
AE F161778*	17.5	14.5	367.3 🖒	0.6939	0.75 👟 "	0.38
AE F059411 *	242.3	40.9	140.1	0.264	0.81	\$\text{\text{0.44}}
AE F145740 *	81.4	8.7	492(2	0.9998	0%61	D 930 (g)
AE F145741 *	43.0	6.9	493.2	Q 318	Q.48 g	@.24 _@ [*]
AE 0000119*	91.0	19.9	@r83.2	0.346	Q,0.520°	0.26
BCS-CW81253 *	115.8	35.1	343.3	© 0.6486	o 12N	(J 0.9S)
AE 0002166**	10.1	20.0	√ 3 <u>9</u> 924 √	0.7508) <u>1</u> 3	0.36

^{*} Aerobic soil degradation, see MCA 7.1.1

Findings:

The maximum PEC_{soil} values for podosylfuron methy sodium and its metabolite are summarised in the following table. The maximum, short-term and long-term PEC soil values and the time weighted average values (TWAC_{soil}) of odosulfuron methyl-sodium and its metabolites are provided thereafter for 1 x 10 g a.s./ha (BBCH 13-32) 25 % crop interception) and 1 x 5 g a x/ha (BBCH 20-32, 50 % crop interception).

Maximum PECsgi of iodos of uron methyl-sodium and its metabolites for the uses **Table CP 9.1.3-3:**

Use pattern	Wintergereals, 1 × 10 g a.s./kg	Winter cereals, 1 × 7.5 g a.s./ha
Use pattern	25% interception)	\mathbb{Z} (50% interception)
Use pattern	Winter pereals 1 × 10 g a.s./ha 25% interception ing/kgi	[mg/kg]
Iodosulfuron-methyl-sodium	0.04.0 0.006	0.005
AE F07\$736	0006	0.003
AE F105/736 AE F161778 AE F059411 AE F145740 AE F145741 AE 0000119 BCS-CW8\253	00006 × .0 000014, Δ	< 0.001
AE F059411	0.001 0.000 0.0001 0.0001	< 0.001
AE F059411 AE F145740 AE F145741	0.00 P 0.0001 0.0001	< 0.001
AE F145741 @ 🔎 💍	© © 001	< 0.001
AE 0000119	y' & 0.0010	< 0.001
BCS-CW8-1253	0.002	0.001
AE 0002 66	0.002	< 0.001
AE F059411 AE F145740 AE F145741 AE 0000119 BCS-CW8\253 AE 0002\66		
, O.		
O		

^{**} Soil photolysis, not normilised, MCA 7.1.1

Maximum DT50 of laboratory studies; normatize

Table CP 9.1.3-4: PEC_{soil} (actual) and TWAC_{soil} of iodosulfuron-methyl-sodium

	Time		r cereals		cereals
	[days]	1×10 g a.s./ha,	1 × 10 g a.s./ha, 25% interception		50% interception
		PECsoil	TWACsoil	PEC	TWACson
		[mg/kg]	[mg/kg]	[mg/kg]	_{}mg/kg)
Initial	0	0.010	-	£0 005	
	1	0.009	0.000	№ 0.005	√ 40,005 √ √ √ √ √ √ √ √ √ √ √ √ √
Short term	2	0.009	0.009	0.004	9 0.005~
	4	0.008	\$0.009	0.004 ×	0.00
	7	0.007	<u>3</u> €0.008	0.003	. * 0. 0 04
	14	0.005	0.007 ×	0.002	0.003
	21	0.003	0,006	~ 0.002 ~	√0.00 3 ©
Long term	28	0.002	90.005	C 0.901	[∞] 0.003
	42	<0.001	0.00	≈ 0.001 ©	√ 0 :0 02 °
	50	<0.001	Q Q Q Q Q 3	< 0.000	©.002 ©
	100	<0.001	№ .002 €	<0.001 %	< 0.00

Table CP 9.1.3-5: PEC_{soil} (actual) and KWAC_{soil} of metabolite AE F0/5736

		<u> </u>		
		AEFO Wintercreals 10 g a.s./ha, 25% interception PECsoil TWACsoil [mg/kg] [mg/kg]	75 73 6 8	
	Time	(Winter vereals ()	Winter & Winter	cereals
	[days]	N× 10 g a.s./ha, 25% interception	🟸 1 × ₹ 5 g a.s./ha, :	cereals 50% interception
		PECsoil O TWASCsoil	PECsoil	TWACsoil
	Č.		[mg/kg] 🗸	[mg/kg]
Initial	0 ,	∠ 0.006	, 0.903	-
	12	\$ 0.006	\$\times \(\times 0.003 \)	0.003
Short term	\$4 . \(\)	0.006 0 0.006 0 0.006 0 0.006 0 0.006 0 0.006	© 0.003*	0.003
	\$4.0	~0.006~ ~	√y 0,0 0 03	0.003
	Ö 7,	y 0.000	0,003	0.003
		O 0 0 06 & 0 0 0.00 3	0.003	0.003
<u> </u>	1 1 1 1 1		0.003	0.003
Long term	28 👟	© 0.006 © 0.006 ©	0.002	0.003
Long term	42	0.006 © 0.004 0.008	0.002	0.003
*	42,0 36, 300	y	0.002	0.002
	\$₹00	0.002	0.001	0.002

Table CP 9.1,3.6: PECon (actual) and WACon of metabolite AE F145741

	<u> </u>				
4	0		AE F1	45741	
	Tim	Winter W	cereals	Winter	cereals
	[davs]	X × 10 g a.s./ha, 2	25%Cinterception	1×7.5 g a.s./ha,	50% interception
4		PEC soil	TWACsoil	PECsoil	TWACsoil
"\	. F	ي [mg/kg]∜ وا	[mg/kg]	[mg/kg]	[mg/kg]
Initial	© 0 (~~ <q~~~1 td="" ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~<=""><td>-</td><td>< 0.001</td><td>-</td></q~~~1>	-	< 0.001	-
O O	4	© ≪ 0.001	< 0.001	< 0.001	< 0.001
Short term	√ 2 \$	<0.001	< 0.001	< 0.001	< 0.001
	\$ 4 C	≈ <0.001°	< 0.001	< 0.001	< 0.001
29 6	ž A	<0.001	< 0.001	< 0.001	< 0.001
	(1)4 ³ , *	<0.001 ≤0.001	< 0.001	< 0.001	< 0.001
	©21 🔊	< 0.001	< 0.001	< 0.001	< 0.001
Long term	28	< 0.001	< 0.001	< 0.001	< 0.001
Short term	42	< 0.001	< 0.001	< 0.001	< 0.001
	50	< 0.001	< 0.001	< 0.001	< 0.001
	100	< 0.001	< 0.001	< 0.001	< 0.001

Table CP 9.1.3-7: PEC_{soil} (actual) and TWAC_{soil} of metabolite AE F145740

		AE F145740				
	Time	Winter cereals			cereals	
	[days]	1×10 g a.s./ha, 2	25% interception	1×7.5 g a.s. Ora,	50% interception	
		PECsoil	TWACsoil	PECsoil	TWACsoil	
		[mg/kg]	[mg/kg]	[mg/kg]	mg/kg	
Initial	0	< 0.001	-	<0.001	~	
	1	< 0.001	< 0.000	9 .001	< < 0.001 S	
Short term	2	< 0.001	< 0.001	.⊘.<0.001	9 .001	
	4	< 0.001	< 001		Ø 0.00€	
	7	< 0.001	0.001	© <0.001 L	< 0.001	
	14	< 0.001	@ ² 0.001	6.001 √ .	© <0.001 @/	
	21	< 0.001	< 0.001	~<0.00 ~	\ \%0.00 } \%	
Long term	28	< 0.001	\$\sqrt{9.001}\$\times\$	<0.001	× 0.001√	
	42	< 0.001		or ≈0.001 °	< 0.001	
	50	<0.001	~ 0~00 ×	<0.001	© £001 ©	
	100	<0.001	<0.001 O	√ <0.Q0P ×	< 0.001	

Table CP 9.1.3-8: PEC_{soil} (actual and LWAC of metabolite E 0002166

	•		<u> </u>		J
		\mathbb{Q}'	\sim AFO00	02166	***
	Time	(I) Winter	reereals	Winter & Winter	cereals
	[days]	√C × 10 g a.s./ha, 2	cereals 25% interception 4 TWACsoil	$\sqrt[3]{1 \times 7.5}$ g a.s. $\sqrt[3]{1}$	50% interception
		PEC soil	TWA Csoil	PECson	TWACsoil
	Į, Čį		[mg/kg]	,	[mg/kg]
Initial	0	l 🕮 0.002		<0.001	-
	12	\$ 0.00 O	$\sim 0.00\%$	♥ \$\\$0.001\}\	< 0.001
Short term		20 001 2	\$ 0.001	©<0.001\square	< 0.001
	\$4	~ 0.00kJ° ∧	~Q001 &	<0.001	< 0.001
	Ö 7,\	<0,001 \square	(0.001	© ≥0.001	< 0.001
>		O <00001 &	<u></u>	[₹] <0.001	< 0.001
	Øď ×	√ ≤0.001 ₄ ″	< 6.00 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<0.001	< 0.001
Long term	28 👟	≪J<0.00 , ‡>	O' < 0.001 @	© <0.001	< 0.001
Long term	42 [©]	<0.691	\$ 0.00 P	< 0.001	< 0.001
		~ €0,001 ~	< 0.001	< 0.001	< 0.001
	\$900 A	©0.001	<6:001	< 0.001	< 0.001

Table CP 9.1.3-9: PEC (actual) and WAC of metabolite AE F161778

, ,			🏂 🌣 AE F1	61778		
	Time	Winter	cereals	Winter cereals 1 × 7.5 g a.s./ha, 50% interception		
	[days]	Winter Q × 10 g a.s./hc	25% interception			
		PRC soil	TWACsoil	PECsoil	TWACsoil	
2		/ Mmg/kgD /	🌹 [mg/kg]	[mg/kg]	[mg/kg]	
Initial	@ 0 °°	(0.0 0)	J -	< 0.001	-	
Z.	l N	Ø < 99 01 Q	< 0.001	< 0.001	< 0.001	
Short term	· 2 / 2	\$ <0.001 _@	< 0.001	< 0.001	< 0.001	
	% / A	&<0.00¶	< 0.001	< 0.001	< 0.001	
	© 7	<0.001	< 0.001	< 0.001	< 0.001	
) <u> </u>	<0.001	< 0.001	< 0.001	< 0.001	
	21 ×	< 0.001	< 0.001	< 0.001	< 0.001	
Long term	28	< 0.001	< 0.001	< 0.001	< 0.001	
Long term	42	< 0.001	< 0.001	< 0.001	< 0.001	
	50	< 0.001	< 0.001	< 0.001	< 0.001	
	100	< 0.001	< 0.001	< 0.001	< 0.001	

Table CP 9.1.3-10: PEC_{soil} (actual) and TWAC_{soil} of metabolite BCS-CW81253

			BCS-C	W81253		
	Time		cereals		Winter cereals	
	[days]	1×10 g a.s./ha, 2	25% interception	1 × 7.5 g a.s. Ora, 50% interception		
		PECsoil	TWACsoil	PECsoil	TWACsqik	
		[mg/kg]	[mg/kg]	[mg/kg]	_mg/kg	
Initial	0	0.002	-	0.001		
	1	0.002	0.00	0 .001	\$\times 0.001 \$\times \times	
Short term	2	0.002	0.002	0.001	2.001 V	
	4	0.002	QQ 02		0.001	
	7	0.002	<u>J</u> V.002	0.001	. 0.0 0	
	14	0.002	© 0.002 ~	" @9.001 Q" .	© 0.001 °	
	21	0.002	0.002	,°>> 0.00} ₂	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	
Long term	28	0.002		<0.001	[∞] 0.001 [∞]	
	42	0.002	₹ 0.002€	Ø.001 Ø	\$ 0.0 0 1 .°	
	50	0.002	, O.002	<0.0010	© 50.001 °	
	100	0.001	0.902	(\$\sqrt{0.00}\)	< 0.00	

Table CP 9.1.3-11: PEC_{soil} (actual and KWAC_{sol}) of metabolite AE F059411

	AECF059461					
	Time	Q Vinter	cereals 7 25% interception 7 4 TWACsoil	Winter	cereals	
	[days]	_^Q× 10 g n.s./ha, 2	25% interception	$\sqrt[3]{1 \times 7.5}$ g a.s. $\sqrt[3]{1}$ a.s. $\sqrt[3]{1}$	50% interception	
		PEC soil	TWA Csoil	PECson	TWACsoil	
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	mg/kg	[mg/kg]	[mg/kg] ()	[mg/kg]	
Initial	0	0.001		<0.001	-	
		\$ 0.001	0.00	v %0.00 [≫°	< 0.001	
Short term	D	\$6,001 \Q	\$ 0.001	©<0.001\square	< 0.001	
	L \$4 6	√ 0.001√ ×	Q001 Ø	<0.001	< 0.001	
	© 7 ₂ \	√ 0. 0 01 ~	₹ 0.001	© ≨0.001	< 0.001	
>	P 149	0001 400	₩ 0.0 0	< 0.001	< 0.001	
	2 4 ×	0.001	0.001	<0.001	< 0.001	
Long term	28 👟	<	0.001 W	< 0.001	< 0.001	
Long term	42. [©]	<0.001	\$0.001	< 0.001	< 0.001	
		[≫, ₹0°001 %,	0.001	< 0.001	< 0.001	
	\$900	\$0.001 S	< 0.001	< 0.001	< 0.001	

Table CP 9.1.3-12: PEC actual and WAC of metabolite AE 0000119

			<u> </u>						
***			AE 0000119						
	Time	Winter Q × 10 g a.s./hac	cereals	Winter cereals					
	[days]	Q × 10 g a.s./ha 2	25% interception	1×7.5 g a.s./ha, 50% interception					
		PEC _{soil}	TWACsoil	PECsoil	TWACsoil				
*	V Ş	/ Mmg/kgD	🎾 [mg/kg]	[mg/kg]	[mg/kg]				
Initial	@ 0 ° 0	√ <0.0 0 1 √	<u>-</u>	< 0.001	-				
7	l N	® < 9© 01 ° €	< 0.001	< 0.001	< 0.001				
Short term	^2 A	₹7.001 _@	< 0.001	< 0.001	< 0.001				
	4 0	&<0.00¶	< 0.001	< 0.001	< 0.001				
	© 7	0.001	< 0.001	< 0.001	< 0.001				
		<0.001	< 0.001	< 0.001	< 0.001				
	21	< 0.001	< 0.001	< 0.001	< 0.001				
Long term	28	< 0.001	< 0.001	< 0.001	< 0.001				
Long term	42	< 0.001	< 0.001	< 0.001	< 0.001				
	50	< 0.001	< 0.001	< 0.001	< 0.001				
	100	< 0.001	< 0.001	< 0.001	< 0.001				

Potential accumulation in soil:

The accumulation potential after long term use for all substances with DT₅₀ longer than 90 days assessed, i.e. metabolites AE F059411, AE 0000119 and BCS-CW81253. The results for a condard mixing depth of 5 cm are presented in Table CP 9.1.3-13.

Table CP 9.1.3-13: PECsoil of metabolites AE F059411, AE 0000119 and BCS-CW8125 for the uses assessed, taking the effect of accumulation into account (standard mixing depth of 5 cm)

			≫	
Use Pattern	PECsoil	AE F059411 [mg/kg]	AE 0000 19 [mg/kg]	BCS-CW81253 (%)
Winter cereals	plateau	<0.001	€.001 _© °	\$ <0.00\$
1 × 10 g a.s./ha, 25% interception	total*	0.002	<0.00	0.003
Winter cereals	plateau	<0.601	\$\tag{\delta}.001\tag{\tag{\tag{0}}	<0.001
1 × 7.5 g a.s./ha, 50% interception	total*	,001,00	Q _{0.001}	

^{*} total = plateau (background concentration after multi-year use) max. Pfc.

Fate and behaviour in Water and sediment **CP 9.2**

CP 9.2 Fate and behaviour in water and sediment

Laboratory studies assessing the fate and behaviour of the preparation in water and sediment have not been performed. The fate and behaviour of odosulfuron-methyl-sodium in aquatic environment were assessed in the MCA document of the current review dossier, based on laboratory studies with application of the active substance. The endpoints derived from those studies are considered appropriate to assess the exposure of rodosulfuron methyl sodium and its metabolites after application of the formulation INDS+MPR OD 400 (140+300).

Aerobic mineralisation in surface water **CP 9.2.1**

Experimental studies with the formulation have not been performed. Please refer to Document MCA 7.2.2.2.

CP 9.2.2

ormulation have not been performed. Please refer to Document MCA Experimental studies with 7.2.2.3.

Irradiated water/sediment study

Experimental studies with the formulation have not been performed. Please refer to Document MCA 7.2.2.4.

CP 9.2.4 Estimation of concentrations in groundwater

CP 9.2.4.1 Calculation of concentrations in groundwater

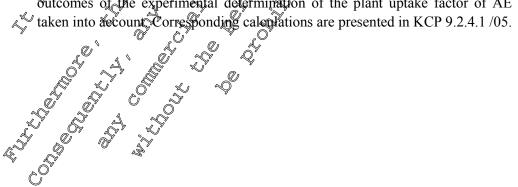
Predicted environmental concentrations in groundwater (PEC_{GW})

<u>Tier 1</u>: Standard calculations following the recommendations of FOCUS (2000) with the DT₅ values calculated in a kinetic evaluation of several laboratory degradation studies (2013), M-447102-02-1, KCA 7.1.2.1.2/02) and normalised to referenced coorditions 20°C and 100 % field capacity.

Higher tier: Calculations refining the laboratory data based calculations using modelling endpoints for iodosulfuron-methyl-sodium and its metabolite RE F075736 coming from terrestrial field dissipation studies. Also, outcomes of the experimental determination of the plant uptake factor of AE F075736 are taken into account.

During the implementation of the modelling pathway in the groundwater models PEARL and PELMO, a set of separate calculations had to be designed in order to overcome some limitations of technical nature. The overall groundwater assessment involving aboratory substance data consists of the following calculations:

- <u>Calculation 1:</u> FOCUS PEARL with parent and all metabolites except soil photometabolite AE 0002166, corresponding calculations are presented in KCP 9.2.4.1 101.
- <u>Calculation 2:</u> FOCUS PELMO with parent and all metabolites occup soil photometabolite AE 0002166 and soil metabolite AE F059411 (in order to keep sum of formation fractions metabolites generated from AE F05736 below 1), corresponding calculations are presented in KCP 9.2.44 / 02)
- Calculation 3 FOCUS PELMO with parent and soil metabolites AE F075736 and AE F0394115 (in order to address the remaining part of the soil degradation pathway), corresponding calculations are presented in KCP 9.24.1 /06
- Calculation 40 FOCOS PEARL & PELMO with soil photometabolite AE 0002166, using pseudo application of the metabolite, corresponding calculations are presented in KCP 9.2 2 1/042
- Calculation Chigher tiers: FOCUS PEARL & PELMO higher tier calculation refining the laboratory data based calculations using modeling endpoints for iodosulfuron-methyl-sodium and its metabolite AF F076736 coming from terrestrial field dissipation studies. Also, outcomes of the experimental determination of the plant uptake factor of AE F075736 are taken into account Corresponding calculations are presented in KCP 9.2.4.1 /05.



<u>Tier 1 assessment:</u>

Report:	KCP 9.2.4.1 /01; , L.; , B.;2014; M-476701-01
Title:	Iodosulfuron-methyl-sodium (IMS) and metabolites: PEC _{gw} FOSUS PEARL EL PR -
	Use in winter cereals in Europe
Report No:	EnSa-14-0110
Document No:	M-476701-01-1
Guidelines:	FOCUS 2000, SANCO/321/2000 rev. 2
	FOCUS 2009, SANCO/13144/2010 version 1
	FOCUS 2012, Generic Guidance for Tier 1 FOCES Groundwater Assessments
	version 2.1
GLP/GEP:	no S S S S

Report:	KCP 9.2.4.1 /02; L. S. B. 2514; M476702701
Title:	Iodosulfuron-methyl-sodium (IMS) and metabolius: PECQw FOODS PELMO EUR
	(pathway 1) - Use in winter cereals in Rorope Q
Report No:	EnSa-14-0111
Document No:	M-476702-01-1 0
Guidelines:	FOCUS 2000, SASCO 21/2000 ev. 2
	FOCUS 2009, \$ANCO/3144/2010 version 1 \$\infty\$ \$\infty\$ \$\infty\$ \$\infty\$ \$\infty\$
	FOCUS 2000, SANCO 324/2000 ev. 2 FOCUS 2009, SANCO 3144/2010 version 1 FOCUS 2012 Generic Guidance for Tiera FOCUS Groundwater Assessments, version 2
GLP/GEP:	no A A O A

Report:	KCP \$2.4.1 \$\text{P3}; LC . B \$2014 \text{M-476094-01}\$
Title:	Iodosulfuren-methyl-soditim (IMS) and metabolites: PECgw FOGVS PELMO EUR (pathway) - Use in winter cereals in Europe ()
	(pathway 2) - Use in winter cereals in Europe V
Report No:	ZEnSa-14-0112
Document No: \$	M-4867042071 V V V V V
Guidelines:	FOCUS 2000, SANCO/321/2000 rev. 2 COCUS 2009, SANCO/33144/2010 version 1
\$	EOCU \$2009, \$ANCQ 13144 2010 version 12
4	FOCUS 2012, Generic Guidance for Tier Procus Groundwater Assessments,
	version 2.1 V
GLP/GACP:	

Report.	<u>KCP 9.2.4.1494;</u> L.: , L.: , B.: 2014; M-476703-01
Title:	Iodesulfuron-methyl-sodium (IMS) photogretabolite AE 0002166: PEC _{gw} FOCUS
Q _I	BARL PELMO EUR Use in winter reals in Europe
Report No: 🔊	ČEnSa-OT-0128 × × ×
Document No:	M-4\P6703\PQ-1 \(\tilde{\phi} \)
Guidelines:	FQCUS 2000, SAXCO/321/2000 rev. 2
	POCUS 2009, SANCQ 13144Q010 version 1
4	FOCUS 2012 Generic Guidance for Tier 1 FOCUS Groundwater Assessments,
*	ver@on 2.1 V
GLP/GEP: @	no & &
	version 2.157
•	

<u>Higher tier assessment:</u>

Report:	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	4;M-476847-01
Title:	Iodosulfuron-methyl-sodium (IMS) and metabo	olite: PECg> FOCUS PEARL, 🔊
	PELMO EUR (field data) - Use in winter cerea	ıls in Eurg y e 🐇 🧳
Report No:	EnSa-14-0113	
Document No:	M-476847-01-1	
Guidelines:	FOCUS 2000, SANCO/321/2000 rev. 2	
	FOCUS 2009, SANCO/13144/2010 version 1	
	FOCUS 2012, Generic Guidance for Tier 1 FOC	OS Groundwater Assessments,
	version 2.1	
GLP/GEP:	no	

Materials and Methods:

The predicted environmental concentrations in groundwater (PEC_{gw}) for iodosulfurous method sodium and its metabolites were calculated using the simulation model FOCUS PEARL (version 4.4.4) and FOCUS PELMO (version 5.5.3).

For the metabolite AE 0002166 separate significants were made to address the information obtained from the environmental fate studies. The metabolite was observed only in soil photolysis studies at maximum occurrence of 20 %. In PEC calculations this is addressed as a pseudo application of the metabolite which takes into account the intended application rate of the parent compound, the relevant crop interception, the maximum occurrence of the metabolite, and the difference in the molar masses of parent and metabolite.

For the worst case use pattern in winter cereal the results for the PEC calculations for the metabolite AE F075736 exceeded the trigger of 0.1 µg/L in three curopean scenarios. Therefore, higher tier calculations for the metabolite AE F075736 were performed.

Detailed application that used for simulation of PEC were compiled in Table CP 9.2.4.1- 1 and Table CP 9.2.4.1- 2.0

Table CP9.2.4.1-1: Application pattern used for PEC calculations

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			Applic	æion		Amount reaching
Individual &	FOCUS Crop	Rate Der Season [g ass /ha]	Interval (days)	Plant	BBCH Stage	soil per season application [g a.s./ha]
Winter cereals, GAP & Signulation	winter cereals	7 × 10 0	Ž-	25	13-32	1 × 7.50
Winter cereals, GAP & Simulation	~ ~	7 1 67.5	0 ″ -	50	20-32	1 × 3.75
GAP Simulation						

Table CP 9.2.4.1- 2: Pseudo-application pattern used for PEC_{gw} calculations of metabolite AE 0002166

	FO CHIC C		Amount reaching			
Individual Crop	FOCUS Crop Used for Interception	Rate per Season [g metab./ha]	Interval [days]	Plant Interception [%]	BBO H Stage	soil per season application [gmetab/ha]
Winter cereals, Simulation*	winter cereals	1 × 1.502	- Ö	25	13-32	1 1/127
Winter cereals, Simulation*	winter cereals	1 × 1.126	. Ø	500	20-32	0.563 g

^{*} pseudo application data used for PECgw photometabolite AE 0002166 (for details see Table CP 2.4.1-8)

The application in winter cereals according to GAP is done at the end of winter or in early spring, usually at the beginning of the vegetation period, for this purpose, the application timing was based on the emergence of the earliest crop in each scenario (Table CD9.2.4(T 3)). The application was set 14 days before the respective date.

Table CP 9.2.4.1-3: Spring emergence dates of earliest cropoin the OCU Scenarios

Scenario	Crop Emergence date Application date
	spring cereals 100Mar 24 Feb/(55)
	carrots
	24 Feb/(55)
	field bears VI DMar (60)
	Sugar Seet
	15 Feb/(46)
40.	potatoes of Mar 15 Feb/(46)

Following this procedure, the application dates are realistic and consistent with crop event dates and weather pertinent to the respective scenario as given by FOCUS (2009). Crop interception was taken into account according to the BBCH growth stage, as recommended by FOCUS (2012).

Table CP 9.2.4.1- 4: First application dates and related information for iodosulfuron-methylsodium as used for the simulation runs

	Winter cereals	Winter cereals
Individual crop	1×10 g a.s./ha	∅× 7.5 g a.s./hæ 💍
	BBCH 13-32	இ BBCH 20-32
Repeat Interval for App. Events	Every Year	Winter cereals 7.5 g a.s./h BBCH 20-32 Every Year Spray Absolute 1stepp. Date Hulian Cay) Offset 24 Feb (55) 24 Feb (55) 30 Mar (60) -
Application Technique	Spray	Spray S
Absolute / Relative to	Absolute	Absolute A
	1 st App. Date	1 st App. Date
Scenario	(Julian day)	Hulian Qy) 💍 🖔
	A ffset Q	o Logifset O C
	24 Feb 🥎 🐧	V V Preb & V
	(55)	(55)
	4 24 Feb	24 Feb 🔑 🛴 °
	(55)	(55) & V
	May Y	V Q 04 Mary O
	(124)	
Ø1 ×	S 24 Feb S	24 Feb*
	©(55) L	
		Al Mar
	Ol Mar	(60)
	06 Mm	∜ 🔊 06 Mar
		(65)
		-
	\$\frac{1}{2} \text{Feb} \times \text{\$\frac{1}{2}\$}	14 Feb
	(450)	(45)
		-
	15 Feb 2 20	15 Feb
	(46)	(46)
		-
	150 eb _ ~	15 Feb
	(46)	(46)
	1 × 10 g a.s./ha BBCH 13-32 Every Year Spray Absolute 1st App. Date (Julian day) Offiset 24 Feb (55) - 24 Feb (55) - 34 Feb (55) - 44 Feb (55) - 44 Feb (45) 15 Feb (46) - 16 Feb (46)	-

Substance specific and model related input parameters for the different PEC_{gw} calculations are summarised in the following tables.

During the implementation of the modelling pathway in the groundwater models PEARL and PELMO, a set of separate calculations had to be designed in order to overcome some limitations of technical nature. The overall groundwater assessment involving laboratory substance data consists of the following calculations:

- Calculation 1: FOCUS PEARL with parent and all metabolites except soil photometabolite AE 0002166, corresponding compound input parameters are presented in Table CP 9.2.4.1-5 and Table CP 9.2.4.1-6.
- Caculation 2: FOCUS PELMO with parent and all metabolites except soil photometabolite DE 0002166 and soil metabolite AE F059411 (in order to keep sum of formation fractions metabolites generated from AE F075736 below 1), corresponding compound input parameters are presented in Table CP 9.2.4.1- 5 and Table CP 9.2.4.1- 6.

- <u>Calculation 3:</u> FOCUS PELMO with parent and soil metabolites AE F075736 and AE F059411 (in order to address the remaining part of the soil degradation pathway), corresponding compound input parameters are presented in Table CP 9.2.4.1-7.
- <u>Calculation 4:</u> FOCUS PEARL & PELMO with soil photometabolite AE 0002166, using pseudo application of the metabolite, corresponding compound inpurparameters presented in Table CP 9.2.4.1-8.
- Table CP 9.2.4.1- 8.

 Calculation 5: FOCUS PEARL & PELMO higher tier calculation refining the laboratory data and it is the state of the stat based calculations using modelling endpoints for iodosuffuron-methy sodium and its metabolite AE F075736 coming from terrestrial field dissipation studies Also outcomes of metabolite AE F075736 coming from terrestifial field dissipation studies. Also outcome the experimental determination of the plant uptake factor of AE F075736 are taken account. Corresponding compound input afframeters are presented in Table (30 9.2 4)1-9. the experimental determination of the plant uptake factor of AE F075736 are taken into The state of the s

-5: Substance specific and model related input parameter for PEC $_{\rm gw}$ calculation of iodosulfuron-methyl-sodium and its metabolites (model parameters not listed are kep@as **Table CP 9.2.4.1-5:** default) - Calculation 1 & 2

Parameter	Unit	Iodosulfuron- methyl-sodium	AE F145740	AE F075/36	AE J 45740)
Common			L	7	
Molar Mass	[g/mol]	529.3	493.2	381.4	l. Oʻ491%∛ .″ ⁹
Water Solubility	[mg/L]	25000	(3 000	√ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 √ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790 ✓ 2790	1000 1000E-10 1.000©
Vapour Pressure	[Pa]	2.60E-09	₩00E-10	1.00E-10	₹Q00E-140/
Freundlich Exponent	[-]	0.870 1)	« 0.920 ¹)	0.920 1)	1.000\$
Plant Uptake Factor	Ī-Ī	0.0	4 [©] 0.0	0.0	
Walker Exponent	Ī-Ī	0.7	0.7	0.70	
PEARL parameters					
Substance Code	[-]	IMS 🖔	Q 17,40° X	¥736	y 1/41°
DT ₅₀	[days]	2.1 30	5(1)3 ⁴⁾	1 120	(1441 ⁴⁾ . •
Molar Activ. Energy	[kJ/mol]	6, 5 ∯	≈ 6 5.4 %	4 6504	\$5.4 D
K _{om}	[mL/g]	29.4 1)	11.20	654	0.0 1
K_{f}	[mL/g]	(9.4 %) (1) - (2)			0.0 10
PELMO parameters		()' ~			(7/ n°
Substance Code	[-]	AS Y	A1 💸	D BJ D	C1
Rate Constant	[1/day] *	♥ @ 33010 ©	0.01350	QQ2770 C	№ 0.06240
Q_{10}	[-] 🖑	2.58	\$ 2\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	002770	2.58 0.0 ²⁾
Koc	[mls/g]	50 (1)	19.3 1)	002770 2.58 2.123 1)	0.0^{2}
Degradation fraction from (FOCUS PEARL) Degradation fraction from Section from Sec	n → to	0.06 LMS -> 1741	, O, ,		
(FOCUS PEARL)		0.83 PMS - \$1736			
*		0.83 PMS - \$1736 0904 IMS\$\infty\$ 1740			
Ş	,	0.50 1736 -> 1758			
		0.44 736 -> 1411		@ ,	
Į. Š		0.27 1736 11119			
		81 1778 -> 1283		∜ v	
TO S		1.00 1740 -> 1919		@	
Degradation ate from →	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	0.001/40 -> 11/19	Substance -> Alo	, <u>j</u>	
(FOCUS (FELMO)		0.032000 Active	e Substance -> A10		
	'n (()N	0.54 / 1000Q 1 10ti / 4	Substance ->B1		
		0.0198000 Active	Substance CI	100	
	4 0	0.025 1000 Active	e Sobstance -> <br< td=""><td>R/CO_2</td><td></td></br<>	R/CO_2	
Q	6. S	0.0135000 A1 ->			
)¥ _Ö	Ø.0075@00 B1 €			
© 0.0138000 B _b > C2					
△ 0.0064000 191 -> 18/R/CO ₂					
0 0 10 M21000 C1 % PD/CO					
0.0024000 C1 - 9 BN CO2 0.0648000 B2 - SBR/CO2					
		0.06@0000 🞾 ->	D2		
·	"U" "U"	0.0143000.02 ->	 2		
L .4	\ Ö	^© 02160°© D2 ->	 2		
1) 4 : 1 .: 0 7 21 72	2 (2)222	Soils The V volue		V valuas with the	

Arithmetic the an value from different soils. The K_{oc} values were converted into K_{om} values with the standard conversion factor of 1724 (for detailed values blease reser to CA 7.1.3.1).

The adsorption possil of the F145741 was not investigated. Therefore, for PEC_{gw} calculations conservative estimates are

Median of normalised DT₅₀ is derobic soil under laboratory conditions (for detailed values please refer to CA 7.1.2-1). Geometric mean of normalised DT₅₀ in aerobic soil under laboratory conditions (for detailed values please refer to CA 2.1.2.1).



- 6: Substance specific and model related input parameter for PEC $_{\!\!\!gw}$ calculation of iodosulfuron-methyl-sodium and its metabolites (model parameters not listed are kep as **Table CP 9.2.4.1-6:** default) - Calculation 1 & 2 (continued)

Parameter	Unit	AE 0000119	AE F161778	BCS-CW80253	AE F059411
Common					4 2
Molar Mass	[g/mol]	183.2	367.3	3,43.3	.≈140 L*
Water Solubility	[mg/L]	200	1000	₹ 000	1000
Vapour Pressure	[Pa]	1.00E-10	1 0 9E-10	\$1,00E 10	1.00E-10
Freundlich Exponent	[-]	0.910 1)	8 .960 1)	0.900 1)	20.900 125°
Plant Uptake Factor	[-]	0.0	<i>√</i> 0.0		1,00E-10 0,900 12 0,005 4
Walker Exponent	[-]	0.7	0.7		Le 100.1
PEARL parameters		1119	, y	a ~ . (
Substance Code	[-]		。I778®	1253 N	₹ 1411 ₹
DT ₅₀	[days]	10.7 ²	929	32 .1 ²⁾	172.5
Molar Activ. Energy	[kJ/mol]	65.4	65.4 ©	%65.4 °°	P (A) 4
Kom	[mL/g]	92:0,1)	111121 1 1 1 1 1 1 1 1 1	4	36 .4 ¹⁾ 7
$K_{\rm f}$	[mL/g]		7-0		69.4 ° 6.4 ° - 20 * *
PELMO parameters					
Substance Code	[-]	B2		D2.	<u>~</u> -
Rate Constant	[1/day]	£% 0.0 6 480 ″	0.07530	D2 58 0.02 560 5 36.8 15	* \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Q ₁₀	[-]^	♥ <u> </u> &2.58 &	2.58	Q Q58 Q	≫ _*
Koc	[mL/g	158.6	31.0(1)3)	36.8 1	<u>~</u> -*
Degradation fraction from	m → tੴ	0.06 IMS -> 1741			0
(FOCUS PEARL)	6	0.83 LMS -> 1936	~ ~		
	~~~ ~	0.04 MS - 1740			
*		0.590 1736  1778			
į S	v	9.44 I786 -> I491			
	Ą,Ĉ	0.27 $36 -> 1119$		°.	
	10. The	0.81 1778 1253	7 5 Û		
	<b>)</b> "	0.81 1778 1253 500 1740 -> 1149		<b>*</b>	
Degradation rate from		0.83 LMS -> 10.66 0.04 IMS -> 1740 0.90 1736 -> 1471 0.44 1736 -> 1451 0.27 1736 > 1119 0.81 1778 > 1253 0.01740 -> 1149	Sufference Q A1.		
(FOCUS REPMO)		0.0122000 Active	Substance > Al	<b>`</b> ♥	
(100051,250)		0.2540000 Active 0.0198000 Active	Substance -> Die	,	
		0.023 500 Active	Substance - WI	D/CO	
( )	4 2	0.023 <b>6</b> 000 ACIWE	Supstance - < B.	R/CO ₂	
	1	0.0135000 AT -> 1	BQ O		
	Q". <i>\$</i>	0.0075000 131 -> 1			
		Ø.0138@00 B1 ₽0			
Degradation rate from (FOCUS PERMO)		0.0064000 Bd ->	SB(S) CO₂		
		0.0624000 ©1 ->	SBR/CO ₂		
	¥ . Q .	0.06480 <b>60</b> B2 -	KBR/CO ₂		
		Ø.0610000 C2	D2		
		0.01-23000	 2		
		0.0216000 D2 ->	 2		

Arithmetic mean value from different soils. The Roc values were converted into Kom values with the standard conversion factor of 1. 24 (for detailed values please refer to CA 7.1.3.1).

Geometrie mean of normatived DEs in acrossic soil under laboratory conditions (for detailed values please refer to CA 7.1.2.1)

Deviation from the mean Kon and Koc value as reported in MCA result from deviating rounding of in decimal places considered for calculation of the average.

* PELMO parameters for the metabolite AE F059411 are presented in Table CP 9.2.4.1-7 below



Substance specific and model related input parameter for PECgw calculation of **Table CP 9.2.4.1-7:** iodosulfuron-methyl-sodium and the metabolites AE F075736 and AE F059411 (model parameters not listed are kept as default) – Calculation 3

Parameter	Unit	Iodosulfuron- methyl-sodium	AE F075736	AE F059411 🖏		
Common			4			
Molar mass	[g/mol]	529.3	381,4	, O 140.05 V		
Water Solubility	[mg/L]	25000🖔				
Vapour Pressure	[Pa]	2.60E-09	- °	, 9- V		
Freundlich Exponent	[-]	0.870 1)	© 0.920 ¹) «	6.900 K		
Plant Uptake Factor	[-]	<u>~</u> 6.0	0.0	, \( \text{0.6} \)		
Walker Exponent	[-]	0.7 ×	<b>30.7 Q</b>	0,7		
PELMO parameters						
Substance Code	[-]		BA BA	[™] C2 [™]		
Rate Constant	[1/day]	0.3,3010 25	© 0.02\$70 ²⁾ ©	« 0.003€9 ³) · ∘		
$Q_{10}$	[-]	2.58	🗣 🐧 Ž.58 🔊	O 258 07		
$K_{oc}$	[mL/g]	50.7	712.3 ° ×	80.1		
Degradation rate from $\rightarrow$ to (FC	CUS PEL <b>M</b> O)	(0.2740000 Active S	ubstance - B1			
0.056 V000 Active Substance > < BISCO2						
0.0122000 B1 -> C2 C C C C C C C C C C C C C C C C C C						
		1 °()/ - \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	$\mathbf{B}_{\mathbf{F}} \mathbf{E} \mathbf{O}_{2}$			

Arithmetic mean value from different soils (for defailed salues please refer to CAR 1.3.1).

Arithmetic mean value from different soils (for estailed values please refer to CA-7.1.2.1).

Median of normalised DTs₀ in aerobic soil under laboratory conditions (for detailed values please refer to CA 7.1.2.1).

Geometric mean of normalised DTs₀ in aerobic soil under laboratory conditions (for detailed values please refer to CA 7.1.2.1).

7.1.2.1).

**Table CP 9.2.4.1-8:** Substance specific and model related input parameter for PEC_{gw} calculation of the metabolite AE 0002166 (model parameters not listed are kept as default) -Calculation 4

Parameter	Unit	AE 0002066
Common		AE 0002000
Molar Mass	[g/mol]	397.4
Water Solubility	[mg/L]	<b>2000</b>
Vapour Pressure	[Pa]	₩ .00E-10 1.000 1)
Freundlich Exponent	[-]	1.000 1)
Plant Uptake Factor	[-]	
Walker Exponent	[-] 3	
PEARL parameters	Ø. »	
Substance Code	[-]	
DT ₅₀	[days]	\$3.5 ² )
Molar Activ. Energy	[kJ/mol] 《J	0 65.4°0 4 A
Kom	/ <del>[li</del> mL/g] Ø	
$K_{\mathrm{f}}$	mL/g) \	
PELMO parameters		
Substance Code		ASE U
Rate Constant	[Variation of the content of the con	0.00742 5
Q ₁₀		Ø.58 O
K _{oc}		
Degradation fraction from to	FOCUS PEARL)	
Degradation rate from to (FO		0.0924200 Active Substance -> 2

The adsorption to soil of AE 0002166 was not investigated therefore, for PEC gw calculations conservative estimates are

The adsorption to soil of AE 0002166 was not investigated otherefolds for PEC_{ew} calculations conservative estimates are used.

Geometric mean of normalised DT_{50-lar} scrobic soil under laboratory conditions (Ddifferent soils, range 4.7 - 10.1 days); for detailed values phase refer to Table CA 192-1.



Table CP 9.2.4.1- 9: Substance specific and model related input parameter for PEC_{gw} calculation of iodosulfuron-methyl-sodium and its metabolite AE F075736 (model parameters not listed are kept as default) – Calculation 5 (higher tier)

1	,	,	
Parameter	Unit	Iodosulfuron-methyl- sodium	AE F075736 &
Common			
Molar mass	[g/mol]	529.3	389.4 0
Water Solubility	[mg/L]	<b>25</b> 000	£2790 \$
Vapour Pressure	[Pa]	<b>2.</b> 60E-09	9.00E <b>Q</b> 0
Freundlich Exponent	[-]	₹ 0.870 ¹)	0.920 1
Plant Uptake Factor	[-]	0.0	(0.5 )
Walker Exponent	[-]	0.7	Q" , O\0.7 \( \tilde{Q}\)
PEARL parameters			0.7
Substance Code	[-]		Ŭ ≈ 17 <b>3</b> ⁄6 ≈
DT ₅₀	[days]		0 14.2 3) A
Molar Activ. Energy	[kJ/mol]		65.4
K _{om}	[mL/g]	29,0	
$K_{\mathrm{f}}$	[ml/2g]		
PELMO parameters	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
Substance Code	[-]	AS AS	S BIJ
Rate Constant	~ [1/day]	© 0.21 <b>6</b> 04	0.04881
Q ₁₀		P	<b>2</b> ,58
K _{oc}	[mL/g]	50.7 1)	Q2.3 1)
Degradation fraction from to		@61 IMS -> 1736 ~	
(FOCUS PEARL) 🔌 🔪			
Degradation rate from to		0.12 1272 Active Substance	-> B10)
(EOCUS DEL MO)		0.9819174 Active Substance	->&BR/CO ₂
Degradation rate from to (FOCUS PELMO)	, 63° , 5° .	0.0488130 B1 & <td>" 71</td>	" 71

Arithmetic mean value from different soils (for detailed values please refer to A 7. 1991).

2) Median of normalised DT₅₀ in soil <u>under field conditions</u> 13 different field sites, 10 reliable DT₅₀ in the range of 0.6 – 10.3 days); fordetailed values please refer to CA 7.1.2.2

Geometric mean of iformalised DTs in soil under field conditions (13 different field sites, 8 reliable DTs₀ in the range of 6.9 – 35 6 days); for detailed values please per to OX 7.1.2.2.

### Findings:

PEC_{gw} were evaluated as the 80° percentile of the mean annual leachate concentration at 1 m soil depth. Tier 1 PEC_{gw} values for iodosulfinon-methyl-softum and its metabolites are given in the following tables. The higher fier PEC_{gw} results for the metabolite AE F075736, based on field data and an experimentally determined POF of QS, are summarised in Table CP 9.2.4.1-15.

Table CP 9.2.4.1- 10: Calculation 1 & 2 - PECgw (PEARL and PELMO) of iodosulfuron-methyl-sodium

		Iodosulfuron-	methyl-sodium	
	Winter	cereals		cereals
	$1 \times 10$ g a.s./ha, $2$	25% interception	$1 \times 7.5$ g a.s. $6a$ ,	50% interception
	PEARL	PELMO	PEARL	PEEMQ ℚ "
	Calculation 1*	Calculation 2*	Calculation 1*	Calculation 2*
FOCUS Scenario	PECgw	PECgw	PECgw	PEC
	[µg/L]	[μg/L] 🖔	[plg/L]	W [mg/L] S
	< 0.001	<0.00	0.001	9.001 ×
	< 0.001	<0.001	©<0.001 ×	Q<0.004\% &
	< 0.001	<b>≤0</b> .001	Q' <0.001 K	<0.001
	< 0.001	©0.001 ∧	Ø.001 💝	©″ < <b>®</b> ,001 <b>©</b> ″
	< 0.001	© 100.0>	<b>€</b> \$0.000 €	0.001
	< 0.001	♥ < <b>®</b> 001 ×	<0.001	<0.001
	< 0.001	\$0.001 _€	© < <b>0</b> .001	0 <0 0 0 0 1 √ °
	<0.001	*\sqrt{\sqrt{0.00}} \sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}\}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}\sqrt{\sintitita}\sqrt{\sqrt{\sq}}}}}}\sqrt{\sqrt{\sintitta}\sqrt{\sintitita}\sqrt{\sintitita}\sign{\sign{\sqrt{\sq}\sign}\sign{\sin}\exi\sign{\sint{\sint{\sint{\sini\q}}}}\sign{\sintit{\sintitiz}\	× 40.00	<b>6</b> .001
	<0.001	<0,001	<0. <del>001</del> €	<0.00 ¹

^{*}Calculation 1 & 2 - for compound specific input parameters see Table OP 9.2.4 1/2 5 and Table OF

**Table CP 9.2.4.1-11:** 

	Q. S. X
Iodosulfuron-	methyl-sodium O
Winter cereals ©	intergereals
1 × 10 g a.s. Apa, 25% interception	Winter gereals 7.5 a.s./ha 50% interception
Winter cereals  1 × 10 g a.s./hpa, 25 Cinter ception  PELNO  Calculation 3	
FOCUS Scenario	Calculation 3*
FOCUS Scenario	PECgw
FOCUS Scenario  PELMO Calculation 3  FOCUS Scenario  PELMO Calculation 3  FOCUS Scenario  PELMO Calculation 3  PEL	[μg/L]
	4.0
FOCUS Scenario  PELNO Calculation 3  PACE  POCUS Scenario  POCUS Scenario  PACE  POCUS Scenario  POCUS Scenario  PACE  PACE  POCUS Scenario  PACE  PACE	<0.001
	1 %
	<0.001
3 (20.001) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	<0.001 <0.001 <0.001
Q 4 Q 0.001Q 4 A	< 0.001
	< 0.001
Q 5 0001 S 5	< 0.001
\$\tag{\tag{\tag{0.001}}}	< 0.001
*Calculation 3 - for compound Specific Coput parameters/see Table CP 9.2.4.1	<del>-</del> 7
*Calculation 3 - for compound Specific Coput parameters see Table CP 9.2.4.1	

Table CP 9.2.4.1- 12: Calculation 5 - PECgw (PEARL and PELMO) of iodosulfuron-methyl-sodium

		Iodosulfuron-i	methyl-sodium	
	Winter	cereals		cereals
	$1 \times 10$ g a.s./ha,	25% interception	1 × 7.5 g a.s. 6a, 50% interception	
	PEARL	PELMO	PEARL	PEEMQ ኞ
	Calculation 5*	Calculation 5*	Calculation 5*	Calculation 5*
<b>FOCUS Scenario</b>	PECgw	PECgw	PEC	PECO
	[µg/L]	[μg/L] 🖔	[plg/L]	( [µg/L] \$\sqrt{\text{\$\sqrt{\text{\$\pi}\$}}}
	< 0.001	<0.00	0.001	<b>9</b> .001
	< 0.001	<0.001	€0.001 ×	Q<0.00 <del>1</del> 5
	< 0.001	≤0.001	Q' <0.001 X	<0.001
	< 0.001	©0.001 ∧	Ø.001 💝	(° ≤ 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 ° 001 °
	< 0.001	© 100.0>	<b>€</b> \$0.000 €	¥ \$0.00£
	< 0.001	<b>0 &lt;00001</b> €	\$\square\$0.001 \$\sqrt{9}	<0.001
	<0.001	\$0.001 ₀	© <9.001	O ^Y <00001 √
	<0.001	~~~<0.Q0V ~~	€ 0.00 ° ×	0.001
	<0.001	<0.0001	0.00M &	<0.00€ ¹

^{*}Calculation 5 - for compound specific input parameters see Table CP 22.4.1-4

Table CP 9.2.4.1-13: Calculation 1 & 2 - PEQ (PEARL and PELAYO) of E F075736

	<b>~</b> ~	10° X	äš . U	- Y
~		AE Ed	75736	O
Ò	Winter	cercals 25% interception	Winter	
1	¥ 10 g a.	25% interception	¥× 7.5 g a.s./ma,	50% interception
	ŞPEAB}L Ö	<b>ELMO</b>	🍫 PEĂRL 🔊	PELMO
	alculation 1,	Calculation 2*	Calculation 1*	Calculation 2*
FOCUS Scenario	P Cgw C	PEC _{gw} ©	PECgw	PECgw
FOCUS Scenario	Ţμg/L] ~	y wy/L]	OF [MOSTL]	[µg/L]
	0.034	×0.027	<b>9</b> .016	0.012
	0.111	, © 0.1000 O	© 0.052	0.046
	<b>€</b> 0.091 ♣	© 00°F.00	0.042	0.045
	© 0.0 <b>29</b>	\$0.092\$	0.037	0.044
	0 112 13	0.132	0.053	0.062
	Ø.050.°√	00061	0.023	0.029
	9.050 0.046 0.002	$\sqrt{}$ $0.055$	0.022	0.025
	) Q.0 <b>0</b> 2 0	0.002	< 0.001	0.001
	QØ11 ×	× 02906	0.005	0.003

^{*}Calculation 1 & 2 - for compound specific input parameters see Pable CP 9.2.4.1- 5 and Table CP 9.2.4.1- 6
In **bold**: values exceeding the trigger value of 0.1 µg/s

Calculation 3 - PECgw (PELMO) of AE F075736 **Table CP 9.2.4.1- 14:** 

		0
	AE F0	075736
	Winter cereals	Winter cereals
	1 × 10 g a.s./ha, 25% interception	1 × 7.5 g a.s. ha, 50% interception
	PELMO	PELMO V
	Calculation 3*	Calculation 3
<b>FOCUS Scenario</b>	PECgw	PEC _{gw}
	[μg/L] 💍	[μg/Lx] ¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬
	0.027	0.0/2 2
	0.100	0%046 ° %
	0.100	Q 0.045 C Q
	0.092	0.040
	0.132	0062 ×
	0.06	0.029
	0.055	0.025
	20002	0.001
	0.006 × Q ×	

^{*}Calculation 3 - for compound specific input parameters see Table CP.

In **bold**: values exceeding the trigger value of 0.1 μg/L.

For the worst case use pattern in winter cereal the results for the PEC calculations for the metabolite AE F075736 exceeded the trigger of 0.1 µg/L in a scenario based on calculations with PEARL (calculation 1) and in scenario based on the calculations with PPLMO (calculations 2 and 3). Therefore, higher tier calculations were performed using the field D150 for both odosulfuron methyl-sodium and AE F075736 and the experimentally determined POF of 0.5 for AE F075736 (for details see Table CP 9.2.4.1-9).

Table CP 9.2,4.1-15: Calculation 5 - PECgw (PEARL and PELMO) of AE F075736

		ALE FO	75736	
	Winter	cereals 🐃 🦼		cereals
Ó	€ 1 × 10 g a.s.0å, 2	25% interception	$1 \times 7.5$ g a.s./ha,	50% interception
	<b>P</b> EARL,	© PELMO	PEARL	PELMO
	Calculation 5*	Cateulatien 5*	Calculation 5*	Calculation 5*
FOCUS Scenagio	O PEC _{gw} O	PECgw	$PEC_{gw}$	$PEC_{gw}$
	O Drg/L]	Ğ ⁷ [μ <b>g</b> /L]	[µg/L]	[µg/L]
	\$\int 0.002\frac{1}{2}\tag{1} \sqrt{1}	© .001	< 0.001	0.001
	Q 0.011 S	0.009	0.005	0.004
	A 9010 0	0.009	0.005	0.004
	° ≥ 0.008 %	0.009	0.004	0.004
	0.019	0.015	0.006	0.007
	0.005	0.005	0.002	0.002
	\$ \(\int \text{0.005} \)	0.007	0.002	0.003
	\$ 0.001°	< 0.001	< 0.001	< 0.001
	<0.001	< 0.001	< 0.001	< 0.001

^{*} Calculation 5 (pigher tier) - for compound specific input parameters see Table CP 9.2.4.1-9

**Table CP 9.2.4.1-16:** Calculation 1 & 2 - PECgw (PEARL and PELMO) of AE F145741

		AE F1	45741	
	Winter	cereals		cereals
	$1 \times 10$ g a.s./ha, $2$	25% interception		50% intercontion
	PEARL	PELMO	PEARL	PELMQ 💸
	Calculation 1*	Calculation 2*	Calculation 1*	Calculation 2*
<b>FOCUS Scenario</b>	PECgw	PECgw	PEC gw	PECO
	[µg/L]	[μg/L] 🖔	[ <b>w</b> \$/L]	(μg/Y) (β
	< 0.001	0.001 🐨	<b>©</b> 0.001	<b>9</b> .001 ×
	0.007	0.009	0.003	Q.0.004
	0.013	0.2009	Q 0,007 K	2, 0.0 <b>04</b>
	0.004	Ø:005	Ø 002 V	© <b>6</b> 903 ©
	0.005	(, °0.009°	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ø.004
	0.002	0.004	\$ 0.00 \$	0.002
	0.004	<b>3</b> .009 <b>6</b>	0.002	0,005
	<0.001	×0.001> >	, 40.001	, 40.001
	<0.001	(0.00) (V)	O < 0.00 Y	<b>€</b> <0.0 <b>0</b>

^{*}Calculation 1 & 2 - for compound specific imput parameters see Table CP 9.2 A - 5 and Table C

Calculation 1 & PEQ (PEARL and PELEYO) of SE F148740 **Table CP 9.2.4.1-17:** 

	_ ~			
		AE F1 cereals 25% interception	45740	
	Winter	cereals	Winter	ereals
	$\gg$ 1 × 10 g a.s./h $\alpha$ , 2	25% interception 🔊	Winter 1 7.5 ga.s./ha	50% interception
\$	∤, KANAKL⊘	O PERMU	PEARL ( O)	PELMO
	Calculation 1*	Calculation 2*	Calculation 1*	Calculation 2*
FOCUS Scenario		PEC	PEC _{sw}	$PEC_{gw}$
, D ³			[µg/E]	[µg/L]
	0.006	√ √0×006 ×	0.903	0.003
FOCUS Scenario	0.013	Ø 0.014 O		0.006
, Ø	0,001	0.014	0.005	0.005
•	<u></u>	00012	0.005	0.006
	0.012	9.013 3 0.008	0.005	0.006
[	0.0 <b>0</b> 7 ~	0.00	0.005	0.004
	A 0.006 ×	0.007	0.003	0.003
	ද° ූම්0.001උ°	9.007 9.001	< 0.001	< 0.001
	0.012 0.007 0.006 0.001 0.003 mpound specific input pa	×0.002	0.001	0.001
* Calculation 2 & 2 - for cor	npound specific input pa	ram@ers see Dable CP 9.	2.4.1- 5 and Table CP 9.2	2.4.1- 6
	y a sy sa	\$* .*Q"		
. *		O		
, O i		Õ		
A 4		*		
,				
, Q				
* Calculation 1 & 2 - for con				

**Table CP 9.2.4.1-18:** Calculation 4 - PECgw (PEARL and PELMO) of AE 0002166

				<i>a.</i>
		AE 00	002166	
	Winter	· cereals		cereals
	$1 \times 10$ g a.s./ha, $2$	25% interception	$1 \times 7.5$ g a.s./ha,	50% interception 🚕 🗋
		E 0002166/ha)**	(1×1.126 AE	50% interception 0002166/hay**
	PEARL	PELMO	PEARL [®]	PELMQ
	Calculation 4*	Calculation 4*	Calculation 4*	Caculation 4*
FOCUS Scenario	PECgw	PEC _{gw}	PEC _{gw}	PEC _{gw}
	[µg/L]	[μg/L]/🕎	ag/L]	O Agg/L] V
	< 0.001	<0.001	_© <b>₹</b> 0.001	©0.001\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	0.005	0.4942	0.003	0.000
	0.007	<b>1</b> 0:007	9, <b>9</b> 04 Q	0,004
	0.003	² √0.005° °	~ ~0.001 _~ ~	<b>№</b> .0.003, ©
	0.005	S 0.9 3	2 0.0 <b>0</b> \$	0.007
	0.002	# <b>Ø</b> Ø Ø Ø Ø Ø	0001	0, <b>50</b> 2 <u></u> °
	0.008	<b>9</b> .022	₩ <u>1</u> 0.004 ₩	<b>6</b> 011 <b>0</b>
	<0.001	<0.00Y	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	/ <0.00 <u>1</u>
	<0.001	(%) <0001 %	<0.00 i	<0.0 <b>₽</b>

^{*} Calculation 4 - for compound specific input parameters see Table CFF 2.4.4.

Calculation 1 & 2 - PECgw PEARL and PELMO of AE \$161 Table CP 9.2.4.1- 19:

			-1-29	2
		AF FY	61778 Wigher	'
8	Winter 🖒 Winter	cereals V	<b>61/78</b>	cereals
S	7 1 <b>₹</b> 10 g <b>a</b> ks./ha, 2	25% interception	○ 1 × 7.5 g a.s. ha, 5	50% interception
	Winter 1 10 g &s./ha, 2 PEARL	PELMO Q	PEARL	PELMO
	Calculation 14		Calculation 1*	Calculation 2*
FOCUS Scenario	PEC _{gw} &	_{⊗.} l™L∕Lσw	PEC _{gw}	$PEC_{gw}$
	O[μg/L[O	Hug/Llo	Lμg/L]	[µg/L]
FOCUS Scenario	0.000	~~~~ 0.00 <del>~</del> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	₹ 0.003	0.002
	~ \$\tag{\pi}20 \tag{\pi}'	0,020	0.009	0.010
	) . 90.016 ° .	📡 🔪 Q.015 😂 💪	0.007	0.007
		<u>~</u> 0.01%, ^	0.007	0.009
	∆ 0. <b>©</b> 22 √ ×	© 0.026 S	0.011	0.012
	ر 1000°0° ي " ڳا	©012 S	0.005	0.006
	0.009	°>0.01Q	0.004	0.005
	\$\forall                                                                                                                                                                                                                                                                                                                                                    \qu	© <0. <b>00</b> 1	< 0.001	< 0.001
	© 8.002 °	.0.901	< 0.001	< 0.001
* Calculation 1 & 2 - for cos	npound specific input pa	ameter See Table CP 9.	2.4.1- 5 and Table CP 9.2	2.4.1-6
*Calculation 1 & 2 - for response				
@ \				
		₹		
	, 29			
	A.			
S.				

^{**} Pseudo application rate was used for the alculation, for details to Table P 9.2 O - 2

Calculation 1 & 2 - PECgw (PEARL and PELMO) of BCS-CW81253 Table CP 9.2.4.1- 20:

				@. °
		BCS-C	W81253	Ž.
	Winter	cereals	Winter	cereals
	$1 \times 10$ g a.s./ha, $2$	25% interception	$1 \times 7.5$ g a.s./ $\infty$ ,	50% interception
	PEARL	PELMO	PEARL	PELMQ Q
	Calculation 1*	Calculation 2*	Calculation 1*	Calculation 2*
<b>FOCUS Scenario</b>	$PEC_{gw}$	PECgw	PEC	PECO
	[µg/L]	[μg/L]_🗞	[µg/L]	[Mg/K] S
	0.020	0.019 🔻	Ø.009	Q 29008 X
	0.045	0.048	0.021	0.022
	0.031	0.3030	Q 0,014 Q	2, 0.0 <b>CA</b>
	0.044	0.054	√ © 020 ×	© @025 ©
	0.050	( 0.055°	0.023 P	y 0.026√y
	0.032	O' 0,038 ×	\$ 0.005 \$	0.047
	0.025	<u> </u>	0.011	0.014
	<0.001	\ ^{\vary} _\^\0.00[\gamma\]	, A0.0010 ×	, Si.001
	0.006	0.000	0.002	₩ 0.00 <u>1</u>
* Calculation 1 & 2 - for co	ompound specific in at pa	rameters see Table CP 9.	241-5 and Table \$ 9.	2.466
Table CD 0 2 4 1 21.	Calculation 1 DEC	gw (PEARL) of ALTO	5016	<i>y</i>
<b>Table CP 9.2.4.1-21:</b>	Calculation 1 - REC	40% 16.		<b>\</b>
	1 2	A E EO	50U11 (A)	

Calculation 1 - RECgw (DEARLY of AR F05941)

Winter Gereals 1 7.5 g a.s./ha 50% interception  DEARL
Winter Cereals
7.5.g a.s./ha 50% interception  DEARL
© Calculation 1*
© Calculation 1*
PECgw
PEC _{gw} [µg/L]
0.019
0.029
0.017
0.024
0.026
0.022
0.016
< 0.001
0.016
1- 5 and Table CP 9.2.4.1- 6
PEC _{gw} [μg/L] 0.019 0.029 0.017 0.024 0.022 0.016 <0.001 0.016 1- 5 and Table CP 9.2.4.1- 6

Table CP 9.2.4.1- 22: Calculation 3 - PECgw (PELMO) of AE F059411

	AE FO	059411
	Winter cereals	Winter cereals
	1 × 10 g a.s./ha, 25% interception	1 × 7.5 g a.s./@x, 50% intercontion
	PELMO	PELMO V
	Calculation 3*	《Calculation 3次 》
FOCUS Scenario	$PEC_{gw}$	PEC _{gw} PEC _{gw}
	[μg/L] 💍	[μg/Lk/ ζ ^γ ζ ^γ
	0.051	0.027
	0.075	20035 2 5
	0.046	Q' 00.021 U U
	0.068	$\bigcirc$
	0.065	
	0.0640	030
	0.041	0.0195
	9.004	₩ ₩ O' 0,992 × ₩
	Ø.027 ≈ "	0 1 0 0 1 1 × 2

^{*}Calculation 3 - for compound specific input same erry see Table CP 2.4.1-

Table CP 9.2.4.1-23: Calculation 1 & 2-PEG (PEORL and PELNO) of E 0000119

Winter cereals  1 × 10 g a.s./ka, 25% Interception  1 × 7.5 g a.s./ka, 50% interception
Winter cereals  X 10 g a s // 25% interception   X 7 5 % s /hg 50% interception
× 1 × 10 g a s /km 25% intercontion - \ X × 7.5 % d s /ha \$0% intercention
15 7.5 ga.s./ na, 25 /h anter caption
J. PEARL O PREMO O   & PEARL O   PELMO
Calculation 2* Calculation V Calculation 2*
FOCUS Scenario  PEC  PEC  PEC  PEC  PEC  PEC  PEC  PE
ૐ \ͺ૦້ [μ⁄g/L] ΅   ͺϧ [μg/L] ͺῷ   ͺϧ [μg/L]   [μg/L]
<0.001 <0.001 <0.001 <0.001
0.002 0.002 0.001 0.001
0.001
© 0001 © Q901 ©   > <0.001 0.001
<b>0.001 0.001 0.001</b>
0.001 $0.001$ $0.001$
3 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001
<0.001 <0.001
<0.001 <0.001

^{*} Calculation & 2 - for compound specific input parameters see Fable CP 9.2.4.1- 5 and Table CP 9.2.4.1- 6

# **Conclusion:**

There are no concerns for groundwater from the use of iodosulfuron-methyl-sodium in accordance with the use pattern for the representative formulation.

# CP 9.2.4.2 Additional field tests

Additional field tests to assess the leaching behaviour of iodosulfuron and its metabolites are not considered necessary.

### **CP 9.2.5** Estimation of concentrations in surface water and sediment

Predicted environmental concentrations in surface water (PEC_{SW})

### Predicted environmental concentrations in sediment (PEC_{SED})

<u>Tier 1</u>: standard calculations following the recommendations of FOCUS (2000) with the DT₅ values calculated in a kinetic evaluation of several laboratory degradation studies (M-447102-02-1) and normalised to referenced conditions 20°C and 100 % field capacity.

Higher tier: calculations refining the laboratory data based calculations using modelling endpoints for iodosulfuron-methyl-sodium and its metabolite AF F075736 coming from terrestriabilied dissipation studies. Also, outcomes of the experimental determination of the plant uptake factor of AE F075736 are taken into account.

For technical reasons, it was necessary to split the calculations related to the aquatic exposure assessment into several parts:

- <u>Calculation 1</u>: Steps 1 and For parent and all soil metabolities (except soil metabolities AE F075736 and soil photometabolities AE 0002166); corresponding calculations are presented KCP 9.2.5 /01.
- <u>Calculation 2</u>: Steps 7 and 2 with parent, soil photometabolic AE 0002160, and all purely aquatic metabolites corresponding calculations are presented KCP 9.2.5 /02
- <u>Calculation 3</u>: Steps 1 with parent and metabolite AE F075736, using laboratory soil degradation data; concesponding calculations are presented KCV9.2.5703.
- Calculation 4: Step 3 with parent and metabolite At F075736, higher tier calculation refining the laboratory data based calculations (calculation 3) using soil-relevant modelling endpoints coming from terrestrial field dissipation studies. Also, outcomes of the experimental determination of the plane uptake factor of AFOF075736 are taken into account; corresponding calculations are presented KGF 9.2.5/04.

### Tier 1 assessments

Report:	© 2014 M-476 906-01
Title:	Iodos of furon-methyl sodium (IMS) and metabolites: PEC _{sw,sed} FOCUS EUR (Step12,
	part I) - Use in winter core as in Europe
Report No:	EpSa-14-Q115
Document No:	√M-476¶06-01-7
Guidelines:	FOCUS 2003: SANÇO/4802/2001-rev2
GLP/GEP:	No C C C C

	KCP 2.5 /02; 2014; M-476707-01
Title:	Iod Qulfur methy sodium (IMS) and metabolites: PEC _{sw,sed} FOCUS EUR (Step12,
Title:	part 2) - Se in winter cereals in Europe
Report No.	<b>4</b> SnSa-14-0116
Docoment No:	M-476707-01-1
Guidelines:	FOCUS 2003: SANCO/4802/2001-rev2
GLP/GOP:	110

Report:	KCP 9.2.5 /03; , L.; , H.;2014;M-47	77279-02	
Title:	Iodosulfuron-methyl-sodium (IMS) and metaboli	te: PEC _{sw,sed} FOCU	S EUR (Step123
	lab) - Use in winter cereals in Europe		
Report No:	EnSa-14-0117	**	
Document No:	M-477279-02-1	Z,	
Guidelines:	FOCUS 2003: SANCO/4802/2001-rev2	10	
	FOCUS 2007: SANCO/10422/2005 v 2.0	,A	
GLP/GEP:	no Ex		

### Higher tier assessment:

Report:	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
Title:	Iodosulfuron-methyl-sodium (MS) and metabolite: PCCsw, FOCUS EUR (Step3)
	field) - Use in winter cereals in Europe
Report No:	EnSa-14-0153
Document No:	M-477282-01-1
<b>Guidelines:</b>	FOCUS 2003: SANG 9/4802/2001-rev2 &
	FOCUS 2007: SANGEO/10422/2008 v 2.9 v .0 v . v . v . v . v . v . v . v . v
GLP/GEP:	

### **Materials and Methods:**

Predicted environmental concentrations in surface water and sediment (PEC_{sw} and PEC_{sed}) of iodosulfuron-methyl-sodium and its metabolites have been calculated for the use in winter cereals in Europe.

At FOCUS Step 2 the application period was set to October to February and calculations considered the use in Northern and Southern Europe. Details of the application pattern used in the Step 2 calculations are sommarised in Table CP 9.25-1.

Table CP 9.2.5-1: Application pattern used for PE sw,sed calculations (FOCUS Step 1&2)

	0.3		Application Y					
Individual Crop	FOCUS Grop Used for Interception	Rate per Season [2 a.s./ha/	77 (/2	Plant Interception [%]	BBCH Stage	soil per season application [g a.s./ha]		
Winter cereals  GAP & Simulation	coeals, winter s			minimal crop cover (25%)	13-32	1 × 7.50		
Winter careals, GAP & Sonulation	cereals, winter (arable crops)	Ø1 × 7.5	~ ~ ~	average crop cover (50%)	20-32	1 × 3.75		

At FOCUS Step 3 actual application dates are generally determined by the PAT (pesticide application timer) included within SWASH. However, the application in winter cereals according to GAP is done at the end of winter, corresponding to begin of the vegetation period. For this purpose, the application timing was based on the energence date of the earliest crop in each scenario (see Table CP 9.2.5- 2). Therefore the start of the PAT window was then set 14 days before the respective date. Details of the parameters used in the Step Scalculations are summarised in Table CP 9.2.5- 3.

Table CP 9.2.5-2: Spring emergence dates of earliest crops in the FOCUS scenarios

Scenario	Location	Crop	<b>Emergence date</b>	Julian date
D1		spring cereals	05-May	21-Apr
D2		spring cereals a)	15-Mar ^{a)}	01-Mar ^{a)}
D3		spring cereals	01-Apr	18¥Mar √
D4		field beans	15-Apr	Ø1-Apr
D5		spring cereals	15 <b>-17fa</b> r	©01-Magr
D6		root vegetables	25 Feb	11-Féb
R1		field beans 🐬	40-Apr	Mar _x Mar _x
R2		bulb vegetables	€ 28-Feb	74-Felo (
R3		root veget bles	≈ 26-Feb ©	12-5-8
R4		root vegetables	26-Feb	12-Feb 🎸
		Q0 (*)	√	

a) no crop with emergence in spring defined; D5 data used instead

Table CP 9.2.5-3: Application dates of iodosulf from methyl sodium for the FOCUS Step 3 calculations

Parameter	Winter cereals (1× 10 g a.s./ha)	Winter cereals (1	× 75 g a. (Tha)
PAT start date	Absolute		
rel./absolute	Absolute Absolute	Abşol	rute " 🎺 "
Appl. method	gound spray S	ground	spray∜
(appl. type)	(CAM 2)	Q" CAN	1 2%
No of appl.			0
PAT window	Q 300 4		
range %			
Appl. interval			
Application (S)	AT Start Date	PAN/Start Date	Appl. Date
Details $\mathscr{Q}'$	(Julian Day) Approprie	(Julian Day)	
D1 (1st)	Y ZI-Apř	21 <b>X</b> pr	25-Apr
		Ø 4Ø¥11)	
D2 (18) 🛒	01 Mar 4 12-Mar	01-Mar	12-Mar
		01-Mar (60) 18-Mar	
P.3 (1st)	17-Mar V	√0′ 18-Mar	17-Mar
		$ \bigcirc^{y}                                    $	
P3 (1st) D4 (1st)	18-Mar 17-Mar 0 (7%) 01-Apr 18-Apr	01-Apr	18-Apr
		(21)	
D5 (1st) (2) D6 (5t)	07-Mar	01-Mar	07-Mar
		(60)	
D6 (5t) C	117Feb 27-Feb	11-Feb	27-Feb
		(42)	
Nativitati)	27-May $26-Apr$	27-Mar	26-Apr
	(60) 18-Mar 01-Mar 01-Mar 01-Mar 01-Mar 01-Mar 01-Mar 01-Mar 01-Mar 02-Feb 042) 27-Mar (86) 19-Feb 01-Feb	(86)	10.71
R3 (1st)	Feb V 19-Feb	12-Feb	19-Feb
1	(43)	(43)	00.15
R4 (1st) \	12-F <b>g</b>	12-Feb	02-Mar
		(43)	

For technical reasons, a was necessary to split the calculations related to the aquatic exposure assessment into several parts.

Calculation: Steps 1 and 2 for parent and all soil metabolites (except soil metabolite AE F075736 and soil photometabolite AE 0002166); corresponding compound input parameters are presented in Table CP 9.2.5- 4 and Table CP 9.2.5- 5.



- Calculation 2: Steps 1 and 2 with parent, soil photometabolite AE 0002166, and all purely aquatic metabolites, corresponding compound input parameters are presented in Table CP 9.2.5-6 and Table CP 9.2.5-7
- Calculation 3: Steps 1-3 with parent and metabolite AE F075736 using laboratory soil degradation data; corresponding compound input parameters are presented in Table CP 92.5-
- Calculation 4: Step 3 with parent and metabolite AE F075736, higher tier calculation refining the laboratory data based calculations (calculation 3) using soft-relevant modelling endpoints coming from terrestrial field dissipation studies. Also Outcomes of the Experimental C determination of the plant uptake factor of AE F075736 are taken into account; corresponding compound input parameters are presented in Table CP \$2.5-90

Substance parameters used for iodos in turon methyl sodium and metabolities at **Table CP 9.2.5-4:** Steps 1 & 2 – Calculation 1

		. / . //	9		Ç'
Parameter	Unit	Lodosulfuron- Grethyl-sodium	AE F 45746	AE/F145741	<b>AE 0000119</b>
Molar Mass	[g/mol] _Ô	\$ \$ <b>2</b> 9.3 \$	\$493. <b>2</b>	\$49\cdot\cdot\cdot\cdot\cdot\cdot\cdot\cdot	183.2
Water Solubility	[mg/L]	©25000°	1000%	p 1900 \$	<i>,</i> ≪ J [*] 200
Koc	[mL/g]\$\forall	\$ 50.7\$\)		©0.0 °) ©	→ 158.6 ¹)
Degradation	<b>.</b> .				<b>*</b>
Soil	[days]	$\sim 2^{2} \cdot 1^{2}$	51.3 V	(\$\text{1},1\text{5})	10.7 5)
Total System	[days]	19.8 3	© 45.4 ³	73.4 ³⁾ ©	28.4 ³⁾
Water	[days]	6 19. <b>8</b> 1	45.4 ⁴⁾ V	73.4	28.4 4)
Sediment	[days]	1684	045.4 € ₂	73.4	28.4 4)
Max Occurrence					
Water / Sediment ⁷ <b>©</b>	[%]		\$ 12,6	*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	24.9
Soil 8	O [%]	W 100 %	<b>28</b> .7 5	6.9	19.9

Arithmetic mean value from different sous; for detailed values please refer to CA 7:13.1.

DTs value of total system was and for calculations, as recommended in FOCUS (2003).

Median of normalised T50 in perobic will under laboratory conditions (A different soils; range: 0.6 to 20.8 days); for

detailed values please refer to CA 7.1.2.1.

Geometric mean (for cases where more than value) available) DT, value from two laboratory aerobic water-sediment studies C different aquato systems; for detailed values please refer to CA 7.2.2.3.

Occineuric mean of normalised DTso we aerobity soil under lakeratory 7.1.2.1.

Not investigated Therefore, conservative default estimate is used.

For detailed values please refer to CA 7.2.2.3.

For detailed values please refer to CA 7.1.1. Geometric mean of normalised DT50 and aerobio soil under laboratory conditions; for detailed values please refer to CA

**Table CP 9.2.5-5:** Substance parameters used for iodosulfuron-methyl-sodium and its metabolites at Steps 1 & 2 - Calculation 1 (continued)

Parameter	Unit	AE F161778	BCS-CW81253	AE F059411
Molar Mass	[g/mol]	367.3	343.3	140.1
Water Solubility	[mg/L]	1000	1000	~1000 °
Koc	[mL/g]	31 1)	36,81)	, 0°80.13°
Degradation		CA	, , , , , , , , , , , , , , , , , , ,	
Soil	[days]	9.2	Ø2.1 4)	(C) 1(5 ⁴ ), (C)
Total System	[days]	1000 5)	√1000 ⁵⁾	9.9 ²
Water	[days]	<b>10</b> 00 5)	√ 1000 ⁵⁾ , ©	9.9.0
Sediment	[days]	(2000 ⁵⁾	12000 5) N	9.9 (
Max Occurrence				
Water / Sediment	[%]	(L) 266 (S)	× 0.000 (05)	27.5%
Soil 7)	[%]	O _ @4.5 _ ~	2 36°.1 2	40.9

- Geometric mean (for cases where more than 1 value is available) DT₅₀ value from two laboratory aerobic water-sediment studies (3 different aquatic systems); for detailed values please refer to A 7.2.23.

  DT₅₀ value of total system was used for calculations, as recommended in FQC S (2003).

  Geometric mean of normalised DT₅₀ in absolute value values please refer to CA 7.2.23.
- Geometric mean of normalised DT50 in acrobic will under taborately conditions please refer to CA 7.1.2.1.
- Not investigated. Therefore, conservative default estimate is used.
- For detailed values please refer to A 7.2.23

Substance parameters used for godosultinon-methyl-sodium and metabolites at **Table CP 9.2.5-6:** Steps 1 & 2 – Carculation 2

Parameter 2	Unit	Io@sulfusen- methyl-sodium	SAE 0902166	AE 0014966	AE 0034855
Molar Mass	[g/magol]	529.3	\$97.4₽″	367.3	169.1
Water Solubility O	[mg/L]	<b>₹</b> 2000 €	> 1000°	1000	1000
Water Solubility K _{oc}	[mL/g]		Q 0. <b>0</b>	$0.0^{6}$	0.0 6)
Degradation Q					
Soil S	[days]	2.1 2)	\$7.5 ⁵ \$	$0.0001^{-7}$	$0.0001^{-7}$
Total System	~[days]	Ø19.8 ₹	1000	43.9 ³⁾	1000 8)
Water 🚀 🔏	days	\\\\^19.84\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	√ 1000 6)	43.9 4)	1000 8)
Sediment	[day@]	19.94)	<b>3</b> 900 6)	43.9 4)	1000 8)
Max Occurrence Q	· ~ / / / / / / / / / / / / / / / / / /	0100	25.1		
Water / Sediment 9)	9%] %	~ 100~	23.1	15.5	24.2
Soil	[%]	Q 100®	$20^{10}$	0.0001 7)	0.0001 7)

- Arithmetic mean value from different soils, for detailed values please refer to CA 7.1.3.1.
- Median of normalised 1450 in Robic soil understaboratory conditions (11 different soils; range: 0.6 to 20.8 days); for
- detailed values pleasone for to CA 7.1.21.

  Geometric mean (for cases where more than Value is available) DT50 value from two laboratory aerobic water-sediment studies (3 different aquation ystems); for detailed values please refer to CA 7.2.2.3.
- $DT_{50}$  value of total system was used for calculations, as recommended in FOCUS (2003). Geometric mean of normalise  $DT_{50}$  in aerobic soil under laboratory conditions (4 different soils); for detailed values please refer CA 7.1/2.1.
- Not investigated. Therefor Conservative default estimate is used.
- Metabolite was not identified in acrobic soil degradation studies. Therefore, conservative default estimate is used.
- No varied DTs could be derived from experimental data. Therefore, conservative default estimate is used. For detailed values provide the CA 7.2.2.3.
- For detailed values please refer to CA 7.1.1.

**Table CP 9.2.5-7:** Substance parameters used for iodosulfuron-methyl-sodium and metabolites at **Steps 1&2 - Calculation 2 (continued)** 

Parameter	Unit	AF F159737	AE 1234964	AF F152781
Malar Mass	[-/	192.2	201.2	15(1
MOIAT MASS	[g/moi]	183.2	201.2	1000 \$ **
water Solubility	[mg/L]	1000	1000	1000 3
K _{oc}	[mL/g]	0.0 2)	0,0=0	0 0.0 %
Degradation		Ò	\$	
Soil	[days]	0.000%	Ø.0001 ¹⁾	© Q00011), W
Total System	[days]	1000 3)	(1000 ³ )	27000 32° (
Water	[days]	<b>10</b> 00 3)	1000 ³⁾ O	₩1000 [©]
Sediment	[days]	(2000 ³ )	₩ 12000 3) N	√ 1000 ³⁾ √
Max Occurrence		Q) \(\sigma\)	/	
Water / Sediment 4)	[%]	6 78 N	₹ 7.A.O" O	8.75
Soil	[%]	000011	0.0001 1)	0.0001 1)
Parameter  Molar Mass Water Solubility Koc Degradation Soil Total System Water Sediment Max Occurrence Water / Sediment ⁴ ) Soil  Not investigated. Therefore, co No valid DT50 could be derived For detailed values please refer 5) For detailed values please refers	n any of the soil degrations of the soil degrations of the soil degrations of the soil degration of the soil d	radation studies, Therefore, is used, data. Therefore, conserving the studies of the state of th	ne, conservative default rative default estimates	used Survey of the second of t

- For detailed values please refer to CA 7.2.2
   For detailed values please refer to CA 7.2.2



**Table CP 9.2.5-8:** Substance specific and model related input parameter for PEC_{sw} calculation of iodosulfuron-methyl-sodium and its metabolite AE F075736 at Steps 1-3 (model parameters not listed are kept as default) - Calculation 3

Parameter		1	1	
Company Code         [-]         AE F115008         AE F075736           SWASH Code         [-]         IMS         J736           General Parameters         Company Code	Parameter	Unit	Iodosulfuron-methyl- sodium	
General Parameters         Company	Company Code	[-]	AE F115008	AE F075736
General Parameters         Company	SWASH Code	[-]	IMS 🔏	J 96 Q 4
Water Solubility         [mg/L]         25000         2780           Vapour Pressure         [Pa]         2.6E-09         1.1E-10           Plant Uptake Factor         [-]         0.0         0.0           Wash-Off Factor PRZM         [1/cm]         0.5         0.5           Wash-Off Factor MACRO         [1/mm]         0.6         0.08           Sorption         60.08         0.08           Koc         [mL/g]         90.7 20         12.3 20           Freundlich Exponent         [-]         0.87         0.92 27           Degradation         0.92 27         0.92 27           Form. Frac. PRZM         [mglar basis]         -         0.8302           Form. Frac. MACRO         [mass basis]         -         0.598           Total System         [days]         19.8 3         64.1 3           Water         [days]         19.8 3         64.1 3           Water         [days]         19.8 3         64.1 4           Sediment         0.000 3         (Step 3)         64.4 4           Water / Sediment         0.7         0.7           Water / Sediment         0.0         65.400         88.5 8           Effect of Temperature         0.095<	General Parameters			
Vapour Pressure         [Pa]         2.6E-09         1.1E-10           Plant Uptake Factor         [-]         0.0         0.0           Wash-Off Factor PRZM         [1/cm]         0.5         0.5           Wash-Off Factor MACRO         [1/mm]         0.63         0.08           Sorption         (a)         0.7         0.00           Koc         [mL/g]         0.87         0.92           Freundlich Exponent         [-]         0.87         0.92           Degradation         0.92         0.87         0.92           Form. Frac. PRZM         [modar basis]         -         0.830           Form. Frac. MACRO         [mass basis]         -         0.598           Total System         [days]         19.8°         64.1°           Water         [days]         19.8°         (Steps 1&2)           Gediment         (days)         19.8°         (Steps 1&2)           Water / Sediment         (a)         10.0°         67.8°           Soil         (b)         10.0°         67.8°           Soil         (b)         10.0°         65.40°           Water / Sediment         (a)         (b)         65.40°           Soil	Molar Mass	[g/mol]		~~~381. <b>4</b> Q* ~~~
Vapour Pressure         [Pa]         2.6E-09         1.1E-10           Plant Uptake Factor         [-]         0.0         0.0           Wash-Off Factor PRZM         [1/cm]         0.5         0.5           Wash-Off Factor MACRO         [1/mm]         0.63         0.08           Sorption         (a)         0.7         0.00           Koc         [mL/g]         0.87         0.92           Freundlich Exponent         [-]         0.87         0.92           Degradation         0.92         0.87         0.92           Form. Frac. PRZM         [modar basis]         -         0.830           Form. Frac. MACRO         [mass basis]         -         0.598           Total System         [days]         19.8°         64.1°           Water         [days]         19.8°         (Steps 1&2)           Gediment         (days)         19.8°         (Steps 1&2)           Water / Sediment         (a)         10.0°         67.8°           Soil         (b)         10.0°         67.8°           Soil         (b)         10.0°         65.40°           Water / Sediment         (a)         (b)         65.40°           Soil		[mg/L]		√ 2780   √ √ √ √ √ √ √ √ √ √ √ √ √ √ √ √ √ √
Wash-Off Factor PRZM         [1/cm]         0.5         0.5           Wash-Off Factor MACRO         [1/mm]         0.68         0.08           Sorption         K _{oc} [mL/g]         \$0.7 2)         12.3 2,0         1           Freundlich Exponent         [-]         0.87         0.92 2)         1           Degradation         Soil         (do)*s         2.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)         25.1 1)		[Pa]		I LIE-10 C
Wash-Off Factor PRZM         [1/cm]         0.5         0.5           Wash-Off Factor MACRO         [1/mm]         0.68         0.08           Sorption         50.7 20         12.3 20         12.3 20           Freundlich Exponent         [-]         0.870         0.92 20           Degradation         50.81         25.1 10         25.1 10           Form. Frac. PRZM         [modar basis]         -         0.598           Form. Frac. MACRO         [mass basis]         -         0.598           Total System         [days]         19.80 (Steps 1&2)         64.1 30           Water         [days]         19.80 (Steps 1&2)         64.40 (Steps 1&2)           Sediment         0.7         0.7           Max Occurrence         0.7         0.7           Water / Sediment         [%]         100         88.5 80           Effect of Temperature         Activation Bergy         [9mol]         65400         65400           Exponent         [9/K]         0.095         0.095         0.095	Plant Uptake Factor	[-]		Q" . O 0.0
Wash-Off Factor MACRO         [1/mm]         0.68         0.08           Sorption         K _{oc} [mL/g]         \$0.7 2 ³ 12.3 2 ³ 0         12.3		[1/cm]	0.5~	0.50
No.   Sol	Wash-Off Factor MACRO	[1/mm]	k, _© 0.69° ≥° ×	0. <b>0</b> 8
Freundlich Exponent    Color	Sorption			
Degradation   Soil   [day8]   Soil   [day8]   Soil   Soi		[mL/g]	\$0.7 ²⁾ \$	
Soil         [do]8           21 1 1 2 3 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3	Freundlich Exponent	[-]	~ ~ 0.87\$ ~ ~ ~	O
Soil         [do]8           21 1 1 2 3 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3	Degradation	<i>V (*</i>		
Form. Frac. MACRO [mass basis]		[days] 🛴		<b>25</b> .1 1)
Total System				
Water       [days]       19.8 % (Steps 1&2)       64.4 % (Steps 1&2)         Sediment       19.8 % (Steps 1&2)       64.4 % (Steps 1&2)         Walker Exponent       0.7       0.7         Max Occurrence       0.7       0.7         Water / Sediment       [%]       100       67.8 %         Soil       [%]       100       88.5 %         Effect of Temperature       65400       65400         Exponent       [1/K]       0.095       0.095	Form. Frac. MACRO			. /
Water       [days]       19.8 % (Steps 1&2)       64.4 % (Steps 1&2)         Sediment       19.8 % (Steps 1&2)       64.4 % (Steps 1&2)         Walker Exponent       0.7       0.7         Max Occurrence       0.7       0.7         Water / Sediment       [%]       100       67.8 %         Soil       [%]       100       88.5 %         Effect of Temperature       65400       65400         Exponent       [1/K]       0.095       0.095	Total System		1948 ³ Q	O
Max Occurrence         67.8 69.           Water / Sediment         100.         67.8 69.           Soil         88.5 89.           Effect of Temperature         4.         65400.           Activation Energy         [J/K]         0.095.         65400.           Exponent         [1/K]         0.095.         0.095.	Water	🧳 [days] 🕱	19.8 4)	04.1
Max Occurrence         67.8 69.           Water / Sediment         100.         67.8 69.           Soil         88.5 89.           Effect of Temperature         4.         65400.           Activation Energy         [J/K]         0.095.         65400.           Exponent         [1/K]         0.095.         0.095.	Sediment	Qdays} (	© 19.8 [©] (Steps 1&2) √ √ 4,000 ⁵ (Step 3) √ 2	64.6 ⁴ (Steps 1&2) (Step 3)
Max Occurrence         (%)         100         67.8 6)           Soil         (%)         100         88.5 8)           Effect of Temperature         (%)         (55400)         65400           Exponent         (1/K)         0.095         0.095	Walker Exponent		<b>0</b> .7 k,	
Water / Sediment         [%]         100         67.8 6).           Soil         [%]         100         88.5 8)           Effect of Temperature         Activation Energy         [9mol]         65400         65400           Exponent         [1/K]         0.095         0.095		, W		
Activation Energy         [9mol]         65400         65400           Exponent         0 [1/K]         0.095         0.095		8 %	<del>3</del> 10€/	67.8 ^{6),}
Activation Energy         [9mol]         65400         65400           Exponent         0 [1/K]         0.095         0.095	Soil S .O	[%]V ^	100 67 2	88.5 8)
Activation Exergy	Effect of Temperature			
Exponent $0$ $0.095$ $0.095$ $0.095$	Activation Foergy 💸 🛒	Pmol] 🗳	© 06540g 0,	65400
$Q_{10}$ $\searrow$ $Q_{10}$ $\searrow$ $Q_{10}$ $Q_$	Exponent		(*) 0.095 ×	0.095
	Q ₁₀		2,38	2.58

Median of normalised OT50 in a robic soil under labor pory conditions of different soils; range: 0.6 - 20.8 days for iodosulfuron-methyl-sodium and 10.6 66.7 days for AP F075736); for Metailed values please refer to CA 7.1.2.1. Arithmetic mean value from different soils; for detailed values please refer to CA 7.1.3.1.

Geometric mean DT₅₀ value from two informations aerobic water ediment studies (3 different aquatic systems); for detailed values please for to CD7.2.2.5

DT₅₀ value of total system was used for calculations, as recommended in FOCUS (2003)

Default value used in the capsulations

Default value used in the carculations.

Maximum occurrence in the water phase \$1.57 % on day of in system Rhine is used for the assessment of the aquatic generation of AE F075736, for deailed values please refer to CA 7.2.2.3.

For detailed values please refer to CA 7.1.1.

For detailed values please refer to CA 7.1.1.



**Table CP 9.2.5-9:** Substance specific and model related input parameter for PEC_{sw} calculation of iodosulfuron-methyl-sodium and its metabolite AE F075736 at Step 3 level (model parameters not listed are kept as default) - Calculation 4

Parameter	Unit	Iodosulfuron-methyl- sodium	AE F075736
Company Code	[-]	AE F115008	I. AE FU/(30/.30. ∞.4 I
SWASH Code	[-]	IMS 🔏	1796 O 4
General Parameters		Ö	
Molar Mass	[g/mol]	▼529.3	@; JOI. <del>T</del>
Water Solubility	[mg/L]	∡ 25000 °°	∠ 2780
Vapour Pressure	[Pa]	2.6E-09	1,1E-10 0 0
Plant Uptake Factor	[-]	0.0	Q 0.5
Wash-Off Factor PRZM	[1/cm]	0.5	0.50
Wash-Off Factor MACRO	[1/mm]	0.50	0.08
Sorption	C		
K _{oc}	[mL/g]	\$0.7 ²⁾ \$\tag{\$0.7^2}\$	Q2.3 ² Q
Freundlich Exponent	[-]		. O' & 0 92 2
Degradation	W i'		
Soil	[days] 📞		(4.2 ³⁾
Form. Frac. PRZM	[motar basis]		\$0.610°
Form. Frac. MACRO	[mass basis]		0.440
Water		1 1/02 1/07=0 00.	64,14)
Sediment	🏈 [days] 🛇	iŏ00 ⁵k° . ♥	P000 ⁵⁾
Walker Exponent	<b>[-]</b>	0.7	<i>∞</i>
Effect of Temperature	[days]		
Activation Energy 🐰 ,	[J/mayol] 💍	, 6 <b>3</b> 400 &	65400
Exponent	ď "KVK] _@	© 0.095 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	0.095
Q ₁₀	8 [-]	2.5%	2.58

Median of normalized DTS in soil under field conditions (13) different soils 10 reliable DT50 in the range of 0.6 - 10.3 days); for detailed values please refer to (A 7.1.2)

Arithmetic mean value from different sols; for detailed values please refer to CA7, 1.3.1.

Geometric mean of formalised DT₅₀ in soil under field conditions (13 different soils; 8 reliable DT₅₀ in the range of 6.9 - 35.6 days for detailed values please refer to CA7.1.2.

Findings:

Steps 1 and 2: The maximum PEC, and PEC, avalues for iodosulfuron-methyl-sodium and its metabolites at Steps 2 and 2 are given in the following tables.

Table CP 9.2.5- 10: Maximum PEC_{sw} and PEC_{sed} values for iodosulfuron-methyl-sodium and its metabolites at Steps 1 & 2 – Calculation 1*

FOCUS		Iodosulfuron- methyl-sodium		AE F1	AE F145741		AE F145740		AE F167778	
Use pattern	scenario	PECsw	PECsed	<b>PEC</b> _{sw}	PECsed	PECsw	<b>PE</b> Csed	PECsw	9. V	
		[µg/L]	[µg/kg]	[µg/L]	[µg/kg]	[µg/L] a	[µ̃g/kg]	[µg/L]	[µg/kg]	
	Step 1	3.214	1.583	0.222	<0.001	0.27	0.051	0,324	0.100	
Winter cereals	Step 2			<b>₹</b>	7	w"	,		#	
1 × 10 g a.s./ha	N-EU Single	0.389	0.190	0.070	< 0.001	<b>QQ</b> 04	0.020₡	0.09	0.028	
	S-EU Single	0.327	0.159	0.057	< 0.001	CO.085	0.01	0.4073	023	
	Step 1	2.411	1.187	# 166	<0.001	0.2006	Q <del>5</del> 038	0.243	0.07	
Winter cereals	Step 2		4				N N			
$1 \times 7.5$ g a.s./ha	N-EU Single	0.214	0.104	0.033°	<00001	<b>≈</b> 0.054 _≪	0.01	0.046	<b>10</b> 2014	
	S-EU Single	0.183	$0.089^{\circ}$	0.030	<b>№</b> 0.001	70.0450°	0.009	0.037	0.011 。	

^{*} Calculation 1 - for compound specific input parameters see Table CP 925-5

Table CP 9.2.5-11: Maximum PEC and PEC values for iodoselfuron methyl-sodium and its metabolites at Steps 1 & 2 — Calculation 1 **Continued)

	FOCUS	BCS46W81253		F059411 0		AE 0000119	
Use pattern	scenario *	<b>PEC</b>	PEC sed	PECsw &	PECsed	PEC.	PEC _{sed}
	Scenario «	🏋 [μg/Ľ]	Ç[μg/kg]	[µg/L]	Ĺμ <b>છ</b> kg]	_ [μg/₽]	[µg/kg]
	Step 1	723	0.266	© 0.333 °	~0.261°~	<i>,</i> 0 <b>⊘</b> 197	0.301
Winter cereals	Step 2			, Q		<b>1</b>	
1 × 10 g a.s./ha	N-EU Single		0.092 V	©125 €	0.099	<b>ॐ</b> 0.061	0.094
	S-EU Single	0:4959	0.073	√ 0.101 O″	Ø <b>30</b> 80	♥ 0.050	0.077
	Steple	543	0.200	© 0.250	0.196	0.148	0.225
Winter cereals	Step 2 0						
$1 \times 7.5$ g a.s./ha	M-EU-Single	0.124		0.064	0.050	0.032	0.049
	S-EU Single	0.000 %	0.0 <b>3</b>	0.064 0.052	0.040	0.027	0.041

^{*} Calculation 1 for compound specific coput parameters see Table CP 9.2.5-4 and Vable CP 9.2.5-5

Table CP 9.2.5- 12: Maximum PECs and PECsed values for iodosulfuron-methyl-sodium and its metabolites at Steps 1 & 2 — Calculation 2*

	$\bigcirc$ $\square$								
© FOCAS		lodosulfuron- methyl-sodium		AE 00002166		AE F154781		AE 0014966	
Use pattern ~	scenario	PECsw 2	<b>PEC</b>	PEGW	<b>PEC</b> _{sed}	<b>PECsw</b>	PECsed	<b>PECsw</b>	<b>PEC</b> _{sed}
	l la	μg/Lb	[µg/kg]	[p@/L]	[µg/kg]	[µg/L]	[µg/kg]	[µg/L]	[µg/kg]
	Step 1/5	3.214	1,583	Ø.518	< 0.001	0.002	< 0.001	0.010	< 0.001
Winter cereals	Step 2	, O,	0," "	7					
1 × 10 g a.s./ha	Step 2 A N-EU Single	\$0£389 ·	Q0.19 <b>0</b> S	0.147	< 0.001	0.002	< 0.001	0.010	< 0.001
	SEU Single	0.327		0.121	< 0.001	0.002	< 0.001	0.010	< 0.001
4	Step 🛔 🔪 🧶	2.4	1:187	0.388	< 0.001	0.001	< 0.001	0.007	< 0.001
Winter cereals	Step 2"	_	<b>@</b>						
1 × 7.5 g a.sQha	NEU Single	<i>‰</i> 9.214 [∞]	90.104	0.078	< 0.001	0.001	< 0.001	0.007	< 0.001
	🔊-EU Single 🏽	0.183	0.089	0.065	< 0.001	0.001	< 0.001	0.007	< 0.001

^{*} Calculation 2 Gor compound specific input parameters see Table CP 9.2.5- 6 and Table CP 9.2.5- 7

Table CP 9.2.5- 13: Maximum PEC_{sw} and PEC_{sed} values for iodosulfuron-methyl-sodium and its metabolites at Steps 1 & 2 – Calculation 2*(continued)

	FOCUS	AE 0034855		AE 1234964		AE F159737	
Use pattern	scenario	PEC _{sw} [μg/L]	PEC _{sed} [μg/kg]	PEC _{sw} [μg/L]	PEC _{sed} & [µg/kg]	PECsw [µg/L]	ŢΈC, [μg/kg]
	Step 1	0.007	< 0.001	0.003	<0.004	0.003	<b>3</b> 001
Winter cereals	Step 2			Ĉ			
1 × 10 g a.s./ha	N-EU Single	0.007	< 0.001	©.003	<b>&lt;Ø</b> ∕001	0.003	~~0.00 <b>©</b>
	S-EU Single	0.007	< 0.001	0.003	<b>20</b> .001	<i>0</i> 903 &	<0,001
	Step 1	0.005	<0.001	0.002	<0.001	0.002 💝	< <b>Q</b> 001
Winter cereals	Step 2		. "	4		4	
$1 \times 7.5$ g a.s./ha	N-EU Single	0.005	<0.00	0.002	<b>.√0</b> ⁄.001 ″	♥ 0 _N 0 <del>0</del> 2	\$ <0.000°
_	S-EU Single	0.005	<0.001 €	° 0.000	√×0.00,10°	<b>3</b> 002 ≈	

^{*} Calculation 2 - for compound specific input parameters see Table CP 925-6 and Table CP 9.2.5

Table CP 9.2.5- 14: Maximum PECs, and PECsed values for iodosuffuron methyl sodium and its metabolite AE F075736 at Steps 1 & 2% Calculation 3

II.a. mattama	FOCUS		75736
Use pattern	scenario	PECsel PECsw [µg/L] PECsel PECsw [µg/L]	PEC _{sed} [μg/kg]
Winter cereals	Step 1 Step 2	3.2140 4583 4 2.1360	0.257
1 × 10 g a.s./ha	N-EU Single	0.389 0.196 0.196 0.604	0.091 0.074
Winter cereals	Step 2	2.41 lg/ \$ 15487 \ \tilde{0} 1.60\tilde{0}	0.193
1 × 7.5 g a.s./ha	SEU Single	0.214 0.104 0.104 0.383 0.313	0.047 0.038

^{*} Calculation 3 - for compound specific input parameters see Table CP 9.2.508

Step 3. The maximum PEC, and PEC sed values for relevant FQCUS Step 3 scenarios are given below in Table CP 9.2.5-15 and Table CP 9.2.5-16. The PEC values of the higher tier calculation (calculation 4; based on field data and the experimentally determined PUF of 0.5) are summarised in Table CP 9.2.5-17 and Table CP 9.2.5-18

Maximum PEC_{sw} and PEC_{sed} of iodosulfuron-methyl-sodium and its metabolite **Table CP 9.2.5-15:** AE F075736 for all scenarios at Step 3 (winter cereals, 1 × 10 g a.s./ha) – Calculation 3

Use pattern	Winter cereals, 1 × 10 g a.s./ha					
	Iodosulfuron-methyl-sodium			<b>◇ AE F07573</b>		
FOCUS scenario	Entry	<b>PECsw</b>	PECsed	<b>REC</b> sw	PECsed	
	route**	[µg/L]	[µg/kg]	μg/L]	C [μg/kg]	
D1 (ditch, 1st)	S	0.064	0.055	🔊 0.051 🦠	Q. <b>Q5</b> 1 🗸	
D1 (stream, 1st)	S	0.055	🖔 0.007 🔏	0.034 🗶	<b>20.030</b>	
D2 (ditch, 1st)	D	0.143	0.060	0.787	<b>№</b> 0.264€	
D2 (stream, 1st)	D	0.092 🏑	0.037,◎♥	0.495	0.1594 (	
D3 (ditch, 1st)	S	0.06 <b>3</b> ©	0.01	0.004	© 0:008 ©	
D4 (pond, 1st)	S	0.062	0.003	<b>1</b> 00021	0.027	
D4 (stream, 1st)	S	<b>095</b> 0	0.002	0.014	20.012°	
D5 (pond, 1st)	S	&0.002 <i>_</i> &)°	_\$0.00 <b>3</b> €″	0.00	°>> 0.0°67	
D5 (stream, 1st)	S	© 0.050°	0.00	© 0.6003 ₁	<u>0</u> 003 °	
D6 (ditch, 1st)	S	<u>4</u> 0.063 (	0.0010	Q.004 O	<b>20</b> 0.003	
R1 (pond, 1st)	S	, 0. <b>9</b> 02	<b>≫</b> 0.004 🙈	Õ.001,	€0.004	
R1 (stream, 1st)	S	~∭.042 @ [™]	~~~0.00 <del>~</del>	√ 0.0 <b>25</b>		
R3 (stream, 1st)	R Q	ω [™] 0.133Ψ [∞]	× 0.024 (	0.042	0.003	
R4 (stream, 1st)	RC 4	× 880:0	)	<b>0</b> :040 <b>3</b>	<b>Q</b> 0.005	

^{*} Calculation 3 - for compound specific input parameters see Table CP 9.25 8

Maximum PECsy and PECsed of iodosulfuron-methyl-sodium and its metabolite **Table CP 9.2.5-16:** AE F075736 for all scenarios at Step 3 (winter cereals, 1 × 7.5 g a.s./ta) - Calculation 3*

			0 %, ,	O	
Use partern		Winter	vereal©1 × 7.5⁄	g a.s./ħa″	
	Todos	dfuron methyles	odium [©]	≫ AE F0	75736
FOCUS scenario	≱∰ntry ∜	PEC	PEC	PEC _{sw}	<b>PEC</b> _{sed}
	Youtet*	μg/L	🍑 [μg/kg] 🐇	🎢 [μg/L]	[µg/kg]
D1 (ditch, 1st)	O SO %	0,048	9.042 _@ ,	0.038	0.038
D1 (stream, 1st)	U OS	<b>20</b> .041	0.005	0.025	0.022
D2 (ditch, 1st)	D P	©0.097	© 0.04%	0.589	0.199
D2 (stream, 1st)	D D	0.064	0.028	0.370	0.116
D2 (ditch, 1st) D2 (stream, 1st) D3 (ditch, 1st) D4 (pond, 1st) D4 (stream, 1st)	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	0.948	<b>0</b> 0011	0.003	0.006
D4 (pond, 1st)	/ ~ · · ·	<b>30</b> .002	0.003	0.016	0.020
D4 (stream, 1st)		0.038	0.002	0.010	0.010
D5 (pond, 1st) D5 (stream, 1st) D5 (stream, 1st)	SÕ SÕ	0.002	0.003	0.004	0.005
D5 (stream, 10)		<b>9</b> :937 ~	< 0.001	0.002	0.002
D6 (ditch, lst) $\circ$	S Q	@0.047 _{@1}	0.007	0.003	0.003
R1 (pond st)	S S	0.002	0.003	0.001	< 0.001
R1 (pond 1st) R1 (stream, 1st) R3 (stream, 1st)	. * S	0.031	0.005	0.019	0.002
R3 (stream, 1st)		<b>0</b> 100	0.018	0.032	0.003
R4 (stream, 1st)	ŘŘ Q	<b>0.066</b>	0.016	0.030	0.003

^{**} Entry route: letters S, D, and R correspond to the dominant entry path spray with, draining, and unoff

^{*}Calculation 3 - for compound specific input garameters see Table CP 9.2.5-8

**Entry route: letters S, D and Restriction to the dominant entry path – spray drift, drainage, and runoff

Table CP 9.2.5- 17: Higher tier calculation: Maximum PEC_{sw} and PEC_{sed} of iodosulfuron-methyl-sodium and its metabolite AE F075736 for all scenarios at Step 3 (winter cereals, 1 × 100g a.s./ha) – Calculation 4*

Use pattern	Winter cereals, 1 × 10 g a.s./hab					
	Iodosulfuron-methyl-sodium			AE F	0757 <b>3</b> 6 🎺	
FOCUS scenario	Entry	PEC _{sw}	PEC _{sed}	₹ PEC _{sw}	PEC.	
	route**	[µg/L]	[µg/kg]	🎾 [μg/L] 🔩	[©] [μ <b>g</b> Økg] «ຶ	
D1 (ditch, 1st)	S	0.065	§ 0.055	√ 0.020 ×	0.018	
D1 (stream, 1st)	S	0.055	0.007	0.014	≈90.01 <b>Q</b>	
D2 (ditch, 1st)	D	0.247 🎉	0.126°	0.439	0.169	
D2 (stream, 1st)	D	0.16 <b>2</b>	0.075	0.288	0:094	
D3 (ditch, 1st)	S	0.063	0.014	<b>≤0</b> .001 💍	<0.001	
D4 (pond, 1st)	S	0.002	0.003	0.002	√°,0.003√°	
D4 (stream, 1st)	S	&0.050 &°	_\$0.00 <b>2</b> €″	6.00P	°>y 0.064°	
D5 (pond, 1st)	S	© 0.002°	0.00	© 0. <b>6</b> 691	<u>0</u> 001 .	
D5 (stream, 1st)	S	<u> 0.05</u> 0 (	0: <b>Q</b> 01	≤0.001 ©	<b>©</b> 0.001 \$	
D6 (ditch, 1st)	S 🔏	0.963	<b>≫</b> 0.011 🙈	0.002 ,	0.002	
R1 (pond, 1st)	R	, % 0.002 @ "	\$\square\$0.005	× 0.000		
R1 (stream, 1st)	R Q	(\$\sqrt{0.04}\$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}\}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	0.008	0.043	0.001	
R3 (stream, 1st)	$\mathbb{R}^{\mathcal{O}}$	° 0:4 <b>5</b> °9 ≪	) A 1928 S	<b>1</b> 0.021 溪	<b>Q</b> 0.002	
R4 (stream, 1st)	Q Z	Ø.111 🦠	<b>3</b> 0.026	0.020	0.002	

^{*} Calculation 4 - for compound specifi@input prarameter@see Table CP 9@3-9

Table CP 9.2.5- 18: Higher tier calculation: Maximum PECsw and PEC

			<del></del>		
Use pattern		- Winter	cecoals, 1 🍫 7.5	g al⁄s./ha	
	∜ <b>L</b> odosu	ılfuron-methyl-s			
FOCUS scenario	○ Ent©y &	PECsw O	PECsed	<b>PECsw</b>	<b>PEC</b> _{sed}
	🖖 royte** 🔬	ˈˈug/L]	μg/kg	[µg/L]	[µg/kg]
D1 (ditch, 1st)		00.048	© 0. <b>04</b>	0.015	0.013
D1 (stream, 1st)	SS	0.04	∑° 0. <b>@</b> 05	0.010	0.008
D2 (ditch, 1st)	1%' \D ₁	Ø:¥69 _€	0.092	0.328	0.122
D1 (ditch, 4st) D1 (stream, 1st) D2 (ditch, 1st) D2 (stream, 1st) D3 (ditch, 1st)		Ø.113 O	0.054	0.217	0.071
D3 (ditch, 1st)		、 ≪ 0.048	0.011	< 0.001	< 0.001
D4 (pond, 1st)	SO	0.002	0.003	0.001	0.002
D3 (ditch, 1st) D4 (pond, 1st) D4 (stream, 10)	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<b>0</b> :038	0.002	< 0.001	< 0.001
D5 (pond, lst) (	* ~ * <u>.</u> \$	@0.002	0.003	< 0.001	< 0.001
D5 (stream) st)		> 0.Q3♥	< 0.001	< 0.001	< 0.001
D5 (stream, 1st) D6 (ditch, 1st) R1 (pond, 1st)	\$ S	0.078	0.008	0.002	0.001
R1 (pond, 1st)	A & &	<b>0</b> ,002	0.004	0.001	< 0.001
RI (Stream, 1st)	$R \sim R$	0.033	0.006	0.010	< 0.001
R3 (stream, 1st)	$R_{\mathcal{O}}$	<b>√</b> 0.119	0.021	0.016	0.001
R4 (stream, 1st)	RO	0.083	0.020	0.015	0.002

^{*} Calculation 4 for compound specific input parameters see Table CP 9.2.5-9

# CP 93 Fage and behaviour in air

No volatility studies on the preparation have been performed. Details of volatility for the active substance are given in Document MCA Section 1. Please refer to Document MCA 7.3.2.

^{**} Entry route: letters S, D, and R convespond to the dominant entry path/- spra@drift, drainage, and run@

^{**} Entry route letter S, D, and R correspond to the dominant entry path - spray drift, drainage, and runoff

### **CP 9.3.1** Route and rate of degradation in air and transport via air

conclusions from airborne transport
concept low Henry's constant and the negligible vapour pressure on exposure visualities

CP 9.4 Estimation of concentrations for other routes of exposure.

There are no other routes of exposure to be considered if the product is used according to good agricultural practice.