|  |
| --- |
| **FINAL REGISTRATION REPORT**  Part B  Section 10  Assessment of the relevance of metabolites in  groundwater  **Detailed summary of the risk assessment** |
| **Product code: 054-01-05**  **Product name(s): Meso-Iodo OD-Life**  **Chemical active substance(s):**  **Mesosulfuron-methyl, 10 g/L**  **Iodosulfuron-methyl-sodium, 2 g/L** |
| **Central Zone**  **Zonal Rapporteur Member State: Poland**  **Concerned Member State: Germany** |
| **CORE ASSESSMENT**  **(Authorisation)** |
| **Applicant: Life Scientific Ltd.**  **Submission date: Q1 2023, October 2024**  **MS Finalisation date: July 2023; April 2024, October 2024** |

Version history

|  |  |
| --- | --- |
| When | What |
| July 2023 | Assessment by expert |
| April 2024 | The Final Registration Report |
| October 2024 | fRR completion on Ministry request |
| October 2024 | Assessment by expert |

Harmonised classification according to Regulation (EC) No 1272/2008 and its Adaptations to Technical Process [Table 3.1 of Annex VI of Regulation (EC) No1272/2008 as amended

No classification for toxicology in current harmonised

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# Relevance of metabolites in groundwater

**Introduction**

This application is being submitted to support the registration of Meso-Iodo OD-Life, an oil dispersion (OD) formulation containing 10 g/L mesosulfuron-methyl, 2 g/L iodosulfuron-methyl-sodium and 30 g/L mefenpyr-diethyl in Poland under Regulation (EC) 1107/2009. As the applicant also intends to register the product in Germany, they have been listed as a ‘concerned’ Member State (cMS). This evaluation is required subsequent to the inclusion of mesosulfuron-methyl on Annex I of Directive 91/414/EEC under Commission Directive 2003/119/EC on 1st April 2004. Mesosulfuron-methyl was renewed under Implementing Regulation (EU) 2017/755 on 1st July 2017. Iodosulfuron-methyl-sodium was included on Annex I of Directive 91/414/EEC under Commission Directive 2003/84/EC on 1st January 2004. Iodosulfuron-methyl-sodium was renewed under Implementing Regulation (EU) 2017/407 on 1st April 2017. Meso-Iodo OD-Life will be referred to as product 054-01-05 for the remainder of this document.

Product 054-01-05 is a professional use herbicide formulated as an oil dispersion containing 10 g/L mesosulfuron-methyl, 2 g/L iodosulfuron-methyl-sodium and 30 g/L mefenpyr-diethyl. The product has not previously been evaluated in Poland according to Uniform Principles.

The sources of mesosulfuron-methyl (source 1 (20151195 PWSG), source 2 (20190977 PWSG)) and iodosulfuron-methyl-sodium (20150953 PWSG) have previously been assessed by the CTGB in the Netherlands and deemed technically equivalent to the Annex I reference source. The source of iodosulfuron-methyl-sodium was later assessed by the Central Institute for Supervising and Testing in Agriculture (UKZUZ 038555/2022) in the Czech Republic following Annex I renewal, where it was concluded that the source still met the specification listed in the renewal regulation. The results of each of these assessments were sent to Member States for commenting. Details of the evaluations are available on CIRCA BC.

As part of this application, Life Scientific Ltd. wishes to have the proposed formulation assessed for comparability to the Polish reference product Atlantis 12 OD (10 g/L mesosulfuron-methyl, 2 g/L iodosulfuron-methyl-sodium and 30 g/L mefenpyr-diethyl, OD, authorisation number R-98/2009) of Bayer AG. The applicant considers product 054-01-05 to be comparable, if not identical to Atlantis 12 OD: details provided in Table 1.2-1 in the confidential dossier of this submission (Draft Registration Report – Part C). The uses and claims for which approval is being sought are the same as those already approved for Atlantis 12 OD in Poland.

Atlantis 12 OD (authorisation number R-98/2009) was first authorised on 14th August 2009 and re-registered on 24th August 2020. Given the 30-month data protection period for Atlantis 12 OD and the associated active substances, namely mesosulfuron-methyl and iodosulfuron-methyl-sodium, expired in February 2023, a new application is being submitted to apply for the authorisation of product 054-01-05 in Poland, whereby the applicant submits that it is scientifically valid to extrapolate data and information submitted by Bayer AG on Atlantis 12 OD and use it to evaluate product 054-01-05. This includes the data supporting uses that were applied for after the introduction of Regulation 1107 on 14th of June 2011. According to Paragraph 22 of Commission Notice - Technical Guidelines on Data Protection according to Regulation (EC) No. 1107/2009, 2019/C 229/01, new use data attracts 10 years protection from the date of first authorisation of that product in each Member State (not the date of authorisation of the new crop). Therefore, under Regulation 1107, new use data attracts zero data protection when the original 10-year data protection of the product has expired.

## General information

~~For all information relating to metabolite relevance, please refer to the Part B10 of the Atlantis 12 OD re-registration report submitted by Bayer AG.~~

**Iodosulfuron-methyl-sodium**

None of the soil metabolites of iodosulfuron-methyl-sodium is predicted to occur in groundwater recharge at concentrations above 0.1 µg/L for the intended uses of the product (see dRR part B.8, Point 8.8). An assessment of the relevance of metabolites according to the stepwise procedure of the EC guidance document SANCO/221/2000 –rev.11 is therefore not required for this active substance.

General information on the metabolites of iodosulfuron-methyl-sodium including overall maximum PECgw values for the critical GAPs is provided in Table 10.1-1.

Table 10.1‑1: General information on the metabolite of Iodosulfuron-methyl-sodium

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of active substance** | **Metabolite name and code** | **Structural/molecular formula** | **Trigger for relevance assessment** | **Name of active substance** |
| Iodosulfuron-methyl-sodium | AE F075736 |  | Max PECgw  Based on: | 0.075 µg/L  FOCUS PEARL 5.5.5, Hamburg  Winter cereals, End of winter to spring application |
| Iodosulfuron-methyl-sodium | AE F145740 |  | Max PECgw  Based on: | 0.009 µg/L  MACRO Tier 1 simulation (risk envelope calculated: 10 g a.s./ha), Châteaudun  Winter cereals, Autumn application |
| Iodosulfuron-methyl-sodium | AE F145741 |  | Max PECgw  Based on: | 0.021 µg/L  FOCUS PELMO 6.6.4, Jokioinen  Winter cereals, Autumn application |
| Iodosulfuron-methyl-sodium | AE 0000119 |  | Max PECgw  Based on: | 0.004 µg/L  FOCUS PEARL 5.5.5 and FOCUS PELMO 6.6.4, Hamburg  Winter cereals, Autumn application |
| Iodosulfuron-methyl-sodium | AE F161778 |  | Max PECgw  Based on: | 0.031 µg/L  FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, Autumn application |
| Iodosulfuron-methyl-sodium | BCS-CW81253 |  | Max PECgw  Based on: | 0.025 µg/L  FOCUS PEARL 5.5.5, Hamburg  Winter cereals, Autumn application |
| Iodosulfuron-methyl-sodium | AE F059411/  IN-A4098 |  | Max PECgw  Based on: | 0.045 µg/L  MACRO Tier 1 simulation (risk envelope calculated: 10 g a.s./ha), Châteaudun  Winter cereals, End of winter to spring and Autumn application |
| Iodosulfuron-methyl-sodium | AE 0002166 |  | Max PECgw  Based on: | 0.058 µg/L  FOCUS PELMO 6.6.4, Jokioinen  Winter cereals, Autumn application |

**Mesosulfuron-methyl**

The mesosulfuron-methyl metabolites AE F160459, AE F160460, AE F147447, and BCS-CV14885 are predicted to occur in groundwater recharge at concentrations above 0.1 µg/L (see dRR part B.8, Point 8.8). Assessment of the relevance of these metabolites according to the stepwise procedure of the EC guidance document SANCO/221/2000 –rev.11 is therefore required.

General information on the metabolites of mesosulfuron-methyl including overall maximum PECgw values for the critical GAPs is provided in Table 10.1-2.

Table 10.1‑2: General information on the metabolite of Mesosulfuron-methyl

| Name of active substance | Metabolite name and code | Structural/molecular formula | Trigger for relevance assessment | |
| --- | --- | --- | --- | --- |
| Mesosulfuron-methyl | AE F160459 |  | Max PECgw  Based on: | 0.227 µg/L  FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |
| Mesosulfuron-methyl | AE F092944 |  | Max PECgw  Based on: | <0.001 µg/L  All models, all scenarios  All uses |
| Mesosulfuron-methyl | AE F099095 |  | Max PECgw  Based on: | <0.001 µg/L  All models, all scenarios  All uses |
| Mesosulfuron-methyl | AE F154851 |  | Max PECgw  Based on: | 0.062 µg/L  FOCUS PEARL 5.5.5, Hamburg  Winter cereals, Autumn application |
| Mesosulfuron-methyl | AE F160460 |  | Max PECgw  Based on: | 0.312 µg/L  FOCUS PEARL 5.5.5, Hamburg  Winter cereals, End of winter to spring application |
| Mesosulfuron-methyl | BCS-CV14885 |  | Max PECgw  Based on: | Lysimeter, spring: 0.269 μg/L  Lysimeter, autumn: 0.481 μg/L  Simulation: 0.607µg/L  Lysimeter: spring or autumn application of 2 × 15 g/ha, in consecutive years.  Simulation: FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |
| Mesosulfuron-methyl | AE F140584 |  | Max PECgw  Based on: | 0.060 µg/L  FOCUS PELMO 6.6.4., Jokioinen  Winter cereals, Autumn application |
| Mesosulfuron-methyl | AE F147447 |  | Max PECgw  Based on: | 0.401 µg/L  FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |

**Mefenpyr-diethyl (safener)**

None of the soil metabolites of mefenpyr-diethyl is predicted to occur in groundwater recharge at concentrations above 0.1 µg/L for the intended uses of the product (see dRR part B.8, Point 8.8). An assessment of the relevance of metabolites according to the stepwise procedure of the EC guidance document SAN-CO/221/2000 –rev.11 is therefore not required for this safener component.

General information on the metabolites of mefenpyr-diethyl including overall maximum PECgw values for the generic risk envelope use evaluated is provided in Table 10.1-3.

Table 10.1‑3: General information on the metabolite of mefenpyr-diethyl (safener)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of active substance** | **Metabolite name and code** | **Structural/molecular formula** | **Trigger for relevance assessment** | |
| Mefenpyr-diethyl | AE F113225 |  | Max PECgw  Based on: | <0.001 µg/L  all FOCUS scenarios |
| Mefenpyr-diethyl | AE F094270 |  | Max PECgw  Based on: | <0.001 µg/L  all FOCUS scenarios |
| Mefenpyr-diethyl | AE F114952 |  | Max PECgw  Based on: | <0.001 µg/L  all FOCUS scenarios |
| Mefenpyr-diethyl | AE 2211046 |  | Max PECgw  Based on: | <0.001 µg/L  all FOCUS scenarios |

## Relevance assessment of AE F160459, metabolite of mesosulfuron-methyl

**Summary:**

The relevance of groundwater metabolite AE F160459 has already been assessed and accepted at EU level (see EFSA conclusion Section 4, and List of Endpoints for mesosulfuron-methyl). Metabolite AE F160459 is not considered relevant according to the criteria laid down in the EC guidance document SANCO/221/2000 –rev.11. A summary of the relevance assessment is provided in Table 10.2-1.

This agreed assessment is also applicable for the GAP and groundwater scenarios considered in this dRR, as predicted metabolite concentrations were always < 0.75 μg/L.

Table 10.2‑1: Summary of the relevance assessment for AE F160459

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Assessment step** | | **Result of assessment** | |
|  | Non-relevance EU-agreed? | | Yes | Reference:  EFSA conclusion and LoEP of mesosulfuron,  EFSA Journal 2016;14(10):4584, Section 4 and Table 2;  EFSA Journal 2016;14(10):4584 |
|  | STEP 1 | | Metabolite of no concern? | No |
| **Quantification of groundwater contamination** | STEP 2 | | Max PECgw | 0.227 µg/L |
| Based on | FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |
| **Hazard assessment** | STEP 3 | Stage 1 | Biological activity comparable to the parent? | no |
| Stage 2 | Genotoxic properties of metabolite | non-genotoxic |
| Stage 3 | Toxic properties of metabolite; |  |
| Classification of parent | No classification and labelling required with respect to toxicological profile |
| Classification of metabolite | None |
| **Consumer health risk assessment** | STEP 4 | | Estimated consumer exposure via drinking water and other sources; threshold of concern approach | acceptable (<0.75 µg/L) |
| STEP 5 | | Refined risk assessment | N/A\* |
| Predicted exposure (% of ADI) | N/A\* |
|  | | ADI based on | N/A\* |

\* N/A: not applicable

### STEP 1: Exclusion of degradation products of no concern

AE F160459 does not meet the criteria for products of no concern as defined in step 1 of the guidance and therefore needs further assessment.

### STEP 2: Quantification of potential groundwater contamination

PECgw calculations after leaching from soil for AE F160459 were performed, for details see Part B, Section 8, chapter 8.8. The overall maximum concentration of AE F160459 from all assessed uses and scenarios is listed in Table 10.2-1 above.

### STEP 3: Hazard assessment – identification of relevant metabolites

#### STEP 3, Stage 1: screening for biological activity

Metabolite AE F160459 does not have comparable target activity as the parent active compound, as shown by biological screening data. AE F160459 is considered not relevant and is further evaluated in Stage 2.

The biological screening on the metabolite has been considered within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.1).

#### STEP 3, Stage 2: screening for genotoxicity

AE F160459 was addressed for genotoxic activity by the following data package: read across from mesosulfuron-methyl and metabolite AE F160460 allowed to conclude that the metabolite AE F160459 is devoid of genotoxic potential (EFSA conclusion, Section 2). AE F160459 is considered not relevant and is further evaluated in Stage 3.

The genotoxicity studies and read across argument have been evaluated within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.2). During the Pesticides Peer Review Meeting TC134 (31 May 2016), the experts agreed that no further genotoxicity testing is necessary for the metabolite AE F160459.

#### STEP 3, Stage 3: screening for toxicity

Parent compound mesosulfuron-methyl is not classified as toxic or very toxic and has no classification for reproductive toxicity or carcinogenic properties. Consequently, according to Guidance Document Sanco/221/2000, rev.11, 21/10/2021, further toxicity testing with the metabolites is not required based on these criteria.

### STEP 4: Exposure assessment – threshold of concern approach

The metabolite AE F160459 did not reach or exceed the threshold level of 0.75μg/L. No relevant further route of consumer exposure applies for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.4).

### STEP 5: refined risk assessment

As metabolite AE F160459 does not reach or exceed the threshold level of 0.75 μg/L, a refined risk assessment is not necessary for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.5).

## Relevance assessment of AE F160460, metabolite of mesosulfuron-methyl

**Summary:**

The relevance of groundwater metabolite AE F160460 has already been assessed and accepted at EU level (see EFSA conclusion Section 4, and List of Endpoints for mesosulfuron-methyl). Metabolite AE F160460 is not considered relevant according to the criteria laid down in the EC guidance document SANCO/221/2000 –rev.11. A summary of the relevance assessment is provided in Table 10.3-1.

This agreed assessment is also applicable for the GAP and groundwater scenarios considered in this dRR, as predicted metabolite concentrations were always < 0.75 μg/L.

Table 10.3‑1: Summary of the relevance assessment for AE F160460

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Assessment step** | | **Result of assessment** | |
|  | Non-relevance EU-agreed? | | Yes | Reference:  EFSA conclusion and LoEP of mesosulfuron,  EFSA Journal 2016;14(10):4584, Section 4 and Table 2;  EFSA Journal 2016;14(10):4584 |
|  | STEP 1 | | Metabolite of no concern? | no |
| **Quantification of groundwater contamination** | STEP 2 | | Max PECgw | 0.312 µg/L |
| Based on | FOCUS PEARL 5.5.5, Hamburg  Winter cereals, End of winter to spring application |
| **Hazard assessment** | STEP 3 | Stage 1 | Biological activity comparable to the parent? | no |
| Stage 2 | Genotoxic properties of metabolite | non-genotoxic |
| Stage 3 | Toxic properties of metabolite; |  |
| Classification of parent | No classification and labelling required with respect to toxicological profile |
| Classification of metabolite | None |
| **Consumer health risk assessment** | STEP 4 | | Estimated consumer exposure via drinking water and other sources; threshold of concern approach | Acceptable (<0.75 ug/L) |
| STEP 5 | | Refined risk assessment | N/A\* |
| Predicted exposure (% of ADI) | N/A\* |
|  | | ADI based on | N/A\* |

\* N/A: not applicable

### STEP 1: Exclusion of degradation products of no concern

AE F160460 does not meet the criteria for products of no concern as defined in step 1 of the guidance and therefore need further assessment.

### STEP 2: Quantification of potential groundwater contamination

PECgw calculations after leaching from soil for AE F160460 were performed, for details see Part B, Section 8, chapter 8.8. The overall maximum concentration of AE F160460 from all assessed uses and scenarios is listed in Table 10.3-1.

### STEP 3: Hazard assessment – identification of relevant metabolites

* + - 1. **STEP 3, Stage 1: screening for biological activity**

Metabolite AE F160460 does not have comparable target activity as the parent active compound, as shown by biological screening data. AE F160460 is considered not relevant and is further evaluated in Stage 2.

The biological screening on the metabolite has been considered within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.1).

#### STEP 3, Stage 2: screening for genotoxicity

AE F160460 was addressed for genotoxic activity by the following data package of *in vitro* genotoxicity studies: Ames Test on *Salmonella Typhimurium*, Chromosomal aberrations in Chinese Hamster V79 cells, and Gene mutation (HPRT) in Chinese Hamster V79 cells. Negative results in all tests allowed to conclude that the metabolite AE F160460 is devoid of genotoxic potential (EFSA conclusion, Section 2). AE F160460 is considered not relevant and is further evaluated in Stage 3.

The genotoxicity studies have been evaluated within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.2).

#### STEP 3, Stage 3: screening for toxicity

Parent compound mesosulfuron-methyl is not classified as toxic or very toxic and has no classification for reproductive toxicity or carcinogenic properties. Consequently, according to Guidance Document Sanco/221/2000, rev.11, 21/10/2021, further toxicity testing with the metabolites is not required based on these criteria.

### STEP 4: Exposure assessment – threshold of concern approach

The metabolite AE F160460 did not reach or exceed the threshold level of 0.75μg/L. No relevant further route of consumer exposure applies for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.4).

### STEP 5: Refined risk assessment

As metabolite AE F160460 does not reach or exceed the threshold level of 0.75μg/L, a refined risk assessment is not necessary for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.5).

## Relevance assessment of AE F147447, metabolite of mesosulfuron-methyl

The relevance of groundwater metabolite AE F147447 has already been assessed and accepted at EU level (see EFSA conclusion Section 4, and List of Endpoints for mesosulfuron-methyl). Metabolite AE F147447 is not considered relevant according to the criteria laid down in the EC guidance document SANCO/221/2000 –rev.11. A summary of the relevance assessment is provided in Table 10.4-1.

This agreed assessment is also applicable for the GAP and groundwater scenarios considered in this dRR, as predicted metabolite concentrations were always < 0.75 μg/L.

Table 10.4‑1: Summary of the relevance assessment for AE F147447

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Assessment step** | | **Result of assessment** | |
|  | Non-relevance EU-agreed? | | Yes | Reference:  EFSA conclusion and LoEP of mesosulfuron,  EFSA Journal 2016;14(10):4584, Section 4 and Table 2;  EFSA Journal 2016;14(10):4584 |
|  | STEP 1 | | Metabolite of no concern? | No |
| **Quantification of groundwater contamination** | STEP 2 | | Max PECgw | 0.401 µg/L |
| Based on | FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |
| **Hazard assessment** | STEP 3 | Stage 1 | Biological activity comparable to the parent? | No |
| Stage 2 | Genotoxic properties of metabolite | non-genotoxic |
| Stage 3 | Toxic properties of metabolite; |  |
| Classification of parent | No classification and labelling required with respect to toxicological profile |
| Classification of metabolite | None |
| **Consumer health risk assessment** | STEP 4 | | Estimated consumer exposure via drinking water and other sources; threshold of concern approach | Acceptable (<0.75 ug/L) |
| STEP 5 | | Refined risk assessment | N/A\* |
| Predicted exposure (% of ADI) | N/A\* |
|  | | ADI based on | N/A\* |

\* N/A: not applicable

### STEP 1: Exclusion of degradation products of no concern

AE F147447 does not meet the criteria for products of no concern as defined in step 1 of the guidance and therefore needs further assessment.

### STEP 2: Quantification of potential groundwater contamination

PECgw calculations after leaching from soil for AE F147447 were performed, for details see Part B, Section 8, chapter 8.8. The overall maximum concentration of AE F147447 from all assessed uses and scenarios is listed in Table 10.4-1.

### STEP 3: Hazard assessment – identification of relevant metabolites

#### STEP 3, Stage 1: screening for biological activity

Metabolite AE F147447 does not have comparable target activity as the parent active compound, as shown by biological screening data. AE F147447 is considered not relevant and is further evaluated in Stage 2.

The biological screening on the metabolite has been considered within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.1).

#### STEP 3, Stage 2: screening for genotoxicity

AE F147447 was addressed for genotoxic activity by the following data package of *in vitro* genotoxicity studies: Ames Test on *Salmonella Typhimurium*, Chromosomal aberrations in Chinese Hamster V79 cells, and Gene mutation (HPRT) in Chinese Hamster V79 cells. Negative results in all tests allowed to conclude that the metabolite AE F147447 is devoid of genotoxic potential (EFSA conclusion, Section 2). AE F147447 is considered not relevant and is further evaluated in Stage 3.

The genotoxicity studies have been evaluated within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.2).

#### STEP 3, Stage 3: screening for toxicity

Parent compound mesosulfuron-methyl is not classified as toxic or very toxic and has no classification for reproductive toxicity or carcinogenic properties. Consequently, according to Guidance Document Sanco/221/2000, rev.11, 21/10/2021, further toxicity testing with the metabolites is not required based on these criteria.

### STEP 4: Exposure assessment – threshold of concern approach

The metabolite AE F147447 did not reach or exceed the threshold level of 0.75 μg/L. No relevant further route of consumer exposure applies for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.4).

### STEP 5: refined risk assessment

As metabolite AE F147447 does not reach or exceed the threshold level of 0.75 μg/L, a refined risk assessment is not necessary for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.5).

## Relevance assessment of BCS-CV14885, metabolite of mesosulfuron-methyl

The relevance of groundwater metabolite BCS-CV14885 has already been assessed and accepted at EU level (see EFSA conclusion Section 4, and List of Endpoints for mesosulfuron-methyl). Metabolite BCSCV14885 is not considered relevant according to the criteria laid down in the EC guidance document SANCO/221/2000 –rev.11. A summary of the relevance assessment is provided in Table 10.5-1.

This agreed assessment is also applicable for the GAP and groundwater scenarios considered in this dRR as predicted metabolite concentrations were always < 0.75 μg/L.

Table 10.5‑1: Summary of the relevance assessment for BCS-CV14885

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Assessment step** | | **Result of assessment** | |
|  | Non-relevance EU-agreed? | | Yes | Reference:  EFSA conclusion and LoEP of mesosulfuron,  EFSA Journal 2016;14(10):4584, Section 4 and Table 2;  EFSA Journal 2016;14(10):4584 |
|  | STEP 1 | | Metabolite of no concern? | no |
| **Quantification of groundwater contamination** | STEP 2 | | Max PECgw | Lysimeter, spring: 0.269 μg/L  Lysimeter, autumn: 0.481 μg/L  Simulation: 0.607µg/L |
| Based on | Lysimeter: spring or autumn application of 2 × 15 g/ha, in consecutive years.  Simulation: FOCUS PEARL 5.5.5, Jokioinen  Winter cereals, End of winter to spring application |
| **Hazard assessment** | STEP 3 | Stage 1 | Biological activity comparable to the parent? | no |
| Stage 2 | Genotoxic properties of metabolite | non-genotoxic |
| Stage 3 | Toxic properties of metabolite; |  |
| Classification of parent | No classification and labelling required with respect to toxicological profile |
| Classification of metabolite | None |
| **Consumer health risk assessment** | STEP 4 | | Estimated consumer exposure via drinking water and other sources; threshold of concern approach | Acceptable (<0.75 µg/L) |
| STEP 5 | | Refined risk assessment | N/A\* |
| Predicted exposure (% of ADI) | N/A\* |
|  | | ADI based on | N/A\* |

\* N/A: not applicable

### STEP 1: Exclusion of degradation products of no concern

BCS-CV14885 does not meet the criteria for products of no concern as defined in step 1 of the guidance and therefore needs further assessment.

### STEP 2: Quantification of potential groundwater contamination

PECgw calculations after leaching from soil for BCS-CV14885 were performed, for details see Part B, Section 8, chapter 8.8. The overall maximum concentration of BCS-CV14885 from all assessed uses and scenarios is listed in Table 10.5-1.

### STEP 3: Hazard assessment – identification of relevant metabolites

#### STEP 3, Stage 1: screening for biological activity

Metabolite BCS-CV14885 does not have comparable target activity as the parent active compound, as shown by biological screening data. BCS-CV14885 is considered not relevant and is further evaluated in Stage 2.

The biological screening on the metabolite has been considered within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.1).

#### STEP 3, Stage 2: screening for genotoxicity

BCS-CV14885 was addressed for genotoxic activity by the following data package of *in vitro* genotoxicity studies: Ames Test on *Salmonella Typhimurium*, Chromosomal aberrations in Chinese Hamster V79 cells, and Gene mutation (HPRT) in Chinese Hamster V79 cells. Negative results in all tests allowed to conclude that the metabolite BCS-CV14885 is devoid of genotoxic potential. (EFSA conclusion, Section 2). BCS-CV14885 is considered not relevant and is further evaluated in Stage 3.

The genotoxicity studies have been evaluated within the EU peer review process (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.3.2).

#### STEP 3, Stage 3: screening for toxicity

Parent compound mesosulfuron-methyl is not classified as toxic or very toxic and has no classification for reproductive toxicity or carcinogenic properties. Consequently, according to Guidance Document Sanco/221/2000, rev.11, 21/10/2021, further toxicity testing with the metabolites is not required based on these criteria.

### STEP 4: Exposure assessment – threshold of concern approach

The metabolite BCS-CV14885 did not reach or exceed the threshold level of 0.75 μg/L. No relevant further route of consumer exposure applies for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.4).

### STEP 5: refined risk assessment

As metabolite BCS-CV14885 does not reach or exceed the threshold level of 0.75 μg/L, a refined risk assessment is not necessary for this component (cf. RAR of mesosulfuron-methyl Vol.1, Level 2, Section 2.11.5).

**Overall Conclusion**

As the metabolites of iodosulfuron-methyl-sodium in soil are not expected to occur during loading of groundwater at concentrations above 0.1 µg / L for the intended uses of the product and therefore have no toxicological significance, therefore, their evaluation in accordance with the staged procedure contained in the EC Guideline SANCO/221/2000, rev.11 is not required.

Because metabolites AE F160459, AE F160460, AE F147447 and BCSCV14885 mesosulfuron-methyl are expected to occur during groundwater recharging at concentrations above 0.1 µg / L, therefore the significance of these metabolites has been assessed in accordance with the gradual procedure in the EC guidelines SANCO/221/2000, rev.11.

The importance of the AE F160459, AE F160460, AE F147447, BCS-CV14885 groundwater metabolites have already been assessed and accepted at EU level. The metabolite AE F160459, AE F160460, AE F147447, BCS-CV14885 are not considered to be toxicologically relevant according to the criteria in EC Guideline SANCO / 221/2000 – rev. 11.

Since none of the mefenpyr-diethyl metabolites in soil is expected to occur in the recharge of groundwater at concentrations above 0.1 µg / L for the intended uses of the product, there is no justification for substantive assessment of these metabolites according to the gradual procedure contained in the EC document SANCO / 221/2000 –rev.11.

**ACCEPTED** The importance of the AE F160459, AE F160460, AE F147447, BCS-CV14885 groundwater metabolites have already been assessed and accepted at EU level. The metabolite AE F160459, AE F160460, AE F147447, BCS-CV14885 are not considered to be toxicologically relevant according to the criteria in EC Guideline SANCO / 221/2000 – rev. 11.

1. Lists of data considered in support of the evaluation

Tables considered not relevant can be deleted as appropriate.

MS to blacken authors of vertebrate studies in the version made available to third parties/public.

List of data submitted by the applicant and relied on

| Data point | Author(s) | Year | Title Company Report No.  Source (where different from company) GLP or GEP status Published or not | Vertebrate study  Y/N | Owner |
| --- | --- | --- | --- | --- | --- |
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List of data submitted or referred to by the applicant and relied on, but already evaluated at EU peer review

| Data point | Author(s) | Year | Title Company Report No.  Source (where different from company) GLP or GEP status Published or not | Vertebrate study  Y/N | Owner |
| --- | --- | --- | --- | --- | --- |
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The following tables are to be completed by MS

List of data submitted by the applicant and not relied on

| Data point | Author(s) | Year | Title Company Report No.  Source (where different from company) GLP or GEP status Published or not | Vertebrate study  Y/N | Owner |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
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List of data relied on not submitted by the applicant but necessary for evaluation

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

|  |  |
| --- | --- |
| Comments of zRMS: | Comment on statement; acceptable or not. |

No additional information is provided.