# **European Commission**



# **Pyriproxyfen**

LIST OF INFORMATION, TESTS AND
STUDIES WHICH ARE CONSIDERED
AS RELIED UPON BY THE RMS FOR
THE EVALUATION WITH A VIEW TO
THE RENEWAL OF THE ACTIVE
SUBSTANCE

August 2019

**Rapporteur Member State: The Netherlands** 

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# B.1 Identity

#### References for pyriproxyfen

| Data<br>point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection<br>is claimed | Owner  |
|---------------|-----------|------|---|----------------------------|--------------------------------------|--|--------|
| CA            | Kramer,   | 2007 | A new juvenoid – pyriproxyfen   | N                          | N                                    | N/A  | WILEY- |
| 1.9/01        | W.        |      | Company Report No. NNG-0080   |                            |                                      |  | VCH    |
|               | Schimer,  |      | Modern Crop Protection  |                            |                                      |  | Verlag |
|               | U.        |      | Compounds   |                            |                                      |  | GmbH   |
|               |           |      | 25 Insect molting and   |                            |                                      |  | & Co.  |
|               |           |      | metamorphosis   |                            |                                      |  | KgaA   |
|               |           |      | WILEY-VCH Verlag GmbH & Co.   |                            |                                      |  |        |
|               |           |      | KgaA (p797 – 811)   |                            |                                      |  |        |
|               |           |      | Not GLP, Published  |                            |                                      |  |        |

#### References for pyriproxyfen 100 g/L EC

None

## **B.2 Physical and chemical properties**

#### References for pyriproxyfen

| Data<br>point | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not                         | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                   | Owner |
|---------------|--------------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>2.1/01  | Pesselman,<br>R.L. | 1993a | Melting point determination of pyriproxyfen Company Report No. NNP-31-0054 Hazelton Wisconsin, Inc., USA GLP, Unpublished | N                          | N                                    | NA   | SUM   |
| CA<br>2.1/02  | Isozaki, M.        | 2001  | Determination of boiling point of pyriproxyfen Company Report No. NNP-0086 GLP, Unpublished                               | N                          | N                                    | NA   | SUM   |
| CA<br>2.2/01  | Pesselman,<br>R.L. | 1989  | Vapor pressure determination of Sumilarv Company Report No.NNP-91-0030 Hazelton Wisconsin, Inc., USA GLP, Unpublished     | N                          | N                                    | NA   | SUM   |
| CA<br>2.2/05  | Nishiyama,<br>M.   | 2007  | Henry's Law Constant<br>for pyriproxyfen<br>Company Report No.<br>NNP-0113<br>Not GLP, Unpublished                        | N                          | Y*                                   | Data protection is claimed in accordance with Article 59 of Regulation | SUM   |

|              |                    |       |   |   |   | (EC) No.<br>1107/2009* |     |
|--------------|--------------------|-------|---|---|---|------------------------|-----|
| CA<br>2.3/01 | Pesselman,<br>R.L. | 1993b | Color determination of pyriproxyfen Company Report No. NNP-31-0051 Hazelton Wisconsin, Inc., USA GLP, Unpublished                                   | N | N | NA                     | SUM |
| CA<br>2.3/02 | Pesselman,<br>R.L. | 1993c | Physical state determination of pyriproxyfen Company Report No. NNP-31-0053 Hazelton Wisconsin, Inc., USA GLP, Unpublished                          | N | N | NA                     | SUM |
| CA<br>2.3/03 | Kimura, M.         | 2000a | Revision of 'Color of<br>Sumilary technical<br>grade'<br>Company Report No.<br>NNP-0078<br>Not GLP, Unpublished                                     | N | N | NA                     | SUM |
| CA<br>2.3/04 | Kimura, M.         | 2000b | Revision of 'Physical<br>state of Sumilarv<br>technical grade'<br>Company Report No.<br>NNP-0079<br>Not GLP, Unpublished                            | N | N | NA                     | SUM |
| CA<br>2.4/02 | Pesselman,<br>R.L. | 1993e | Ultraviolet-Visible absorption spectrum determination of pyriproxyfen Company Report No. NNP-31-0058 Hazelton Wisconsin, Inc., USA GLP, Unpublished | N | N | NA                     | SUM |

| CA<br>2.4/03 | Bates, M.<br>and Liney, P. | 2005a | Pyriproxyfen: evaluation of spectroscopic properties Company Report No. NNP-0104 Covance Laboratories, UK GLP, Unpublished  | N | N | NA   | SUM |
|--------------|----------------------------|-------|---|---|---|--|-----|
| CA<br>2.4/04 | Hasegawa,<br>M             | 2018  | Ultraviolet-Visible (UV/VIS) Absorption Spectra of Pyriproxyfen Standard Sumika Chemical Analysis Service Ltd Company report no. NNP-0131 Study number GP18051 GLP, Unpublished | Z | Y | New data to<br>support the<br>renewal<br>application | SUM |
| CA<br>2.5/02 | Bates, M.L.                | 2006  | Pyriproxyfen: evaluation of water solubility Company Report No. NNP-0105 Covance Laboratories, UK GLP, Unpublished  | N | N | NA   | SUM |
| CA<br>2.6/01 | Bates, M.L.                | 2002  | Pyriproxyfen: evaluation of physico- chemical properties (EC Directive 91/414/EEC Annex II, Points 2.15, 2.7 and 2.11.1) Company Report No. NNP-0094 Covance Laboratories, UK   | N | N | NA   | SUM |

|              |                         |       | GLP, Unpublished   |   |   |   |     |
|--------------|-------------------------|-------|--|---|---|---|-----|
| CA<br>2.7/02 | Bates, M. and Liney, P. | 2005b | Pyriproxyfen: evaluation of the n- octanol/water partition coefficient Company Report No. NNP-0103 Covance Laboratories, UK GLP, Unpublished               | N | N | NA  | SUM |
| CA<br>2.7/03 | Walker, J.A.            | 2015a | 4'-OH-pyr: Determination of Partition Coefficient (HPLC Method) Company Report No. NNP-0121 Harlan Laboratories Ltd., UK GLP, Unpublished                  | N | Y | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>2.7/04 | Walker, J.A.            | 2015b | DPH-pyr: Determination of Partition Coefficient (HPLC Method) Company Report No. NNP-0122 Harlan Laboratories Ltd., UK GLP, Unpublished                    | N | Y | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>2.7/05 | Walker, J.A.            | 2015c | PYPAC: Determination<br>of Partition Coefficient<br>(HPLC Method)<br>Company Report No.<br>NNP-0123<br>Harlan Laboratories<br>Ltd., UK<br>GLP, Unpublished | N | Y | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>2.7/06 | Walker, J.A.            | 2015d | PYPA: Determination<br>of Partition Coefficient<br>(HPLC Method)   | N | Y | Data protection is claimed in   | SUM |

|               |                  |      | Company Report No. NNP-0124 Harlan Laboratories Ltd., UK GLP, Unpublished  |   |   | accordance with Article 59 of Regulation (EC) No. 1107/2009 |     |
|---------------|------------------|------|--|---|---|---|-----|
| CA<br>2.8/01  | Shigenaga,<br>H. | 1989 | Dissociation constant of Sumilarv Company Report No. NNP-90-0022 Not GLP, Unpublished  | N | N | NA  | SUM |
| CA<br>2.9/01  | Bates, M.        | 2001 | Pyriproxyfen: determination of the physico-chemical properties (92/69/EEC tests A10, A14, A15) Company Report No. NNP-0091 Covance Laboratories, UK GLP, Unpublished                           | N | Z | NA  | SUM |
| CA<br>2.9/02  | Bates, M.L.      | 2002 | Pyriproxyfen: evaluation of physico- chemical properties (EC Directive 91/414/EEC Annex II, Points 2.15, 2.7 and 2.11.1) Company Report No. NNP-0094 Covance Laboratories, UK GLP, Unpublished | Z | Z | NA  | SUM |
| CA<br>2.11/01 | Bates, M.        | 2001 | Pyriproxyfen: determination of the physico-chemical properties (92/69/EEC tests A10, A14, A15) Company Report No. NNP-0091   | N | N | NA  | SUM |

|  | Covance Laboratories, |  |  |
|--|-----------------------|--|--|
|  | UK                    |  |  |
|  | GLP, Unpublished      |  |  |

<sup>\*</sup> according to Article 59, 1(b) of Regulation (EC) No 1107/2009, the data protection claim cannot be granted as the study is not reported to GLP or GEP.

#### References for pyriproxyfen 100 g/L EC

| Data<br>point | Author(s)   | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-------------|------|---|----------------------------|--------------------------------------|--|-------|
| CP 2.1/01     | Reitz, G.A. | 2003 | Shelf-life storage stability of pyriproxyfen 10EC density of pyriproxyfen 10EC – 24 month interim report Company Report No. NNF-0053 Valent USA corporation, USA GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY | N                          | N                                    | NA   | SUM   |
| CP<br>2.2/01  | Bernes, A.  | 2002 | Some physical and chemical properties for pyriproxyfen 10 EC Company Report No. NNF-0048 Personnalité Juridique du centre de  | N                          | N                                    | NA   | SUM   |

| CP<br>2.2/02 | Livingston, | 2011 | Recherches Agronomiques, Belgium GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY  EC A.21 Oxidising liquids testing on a sample of pyriproxyfen | N | Y | Data protection is claimed in accordance with     | SUM |
|--------------|-------------|------|--|---|---|---|-----|
|              |             |      | 10 EC Company Report No. NNF-0069 Chilworth Technology Limited, UK GLP, Unpublished New guideline compliant study  |   |   | Article 59 of<br>Regulation (EC)<br>No. 1107/2009 |     |
| CP<br>2.3/01 | Bernes, A.  | 2002 | NEW STUDY  Some physical and chemical properties for pyriproxyfen 10 EC Company Report No. NNF-0048 Personnalité Juridique du centre de Recherches Agronomiques, Belgium GLP, Unpublished This report was available for review for Annex 1                                     | N | N | NA  | SUM |

|              |             |      | inclusion, however it is included since the data have been used in the evaluation  PREVIOUSLY  SUBMITTED STUDY  ⇒ CP 2.2/01   |   |   |      |     |
|--------------|-------------|------|---|---|---|------|-----|
| CP<br>2.4/01 | Bernes, A.  | 2002 | Some physical and chemical properties for pyriproxyfen 10 EC Company Report No. NNF-0048 Personnalité Juridique du centre de Recherches Agronomiques, Belgium GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY  \$\Rightarrow CP 2.2/01 | N | N | NA . | SUM |
| CP<br>2.5/01 | Paradis, B. | 2001 | Viscosity of pyriproxyfen 10% emulsifiable concentrate Company Report No. NNF-0049 GLP, Unpublished This report was available for review for Annex 1 inclusion, however it  | N | N | NA   | SUM |

|              |             |      | is included since the data have been used in the evaluation  PREVIOUSLY SUBMITTED STUDY  |   |   |    |     |
|--------------|-------------|------|--|---|---|----|-----|
| CP<br>2.5/02 | Martel, I.  | 2001 | Surface tension of pyriproxyfen 10% emulsifiable concentrate Company Report No. NNF-0050 GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY  | N | N | NA | SUM |
| CP<br>2.6/01 | Reitz, G.A. | 2003 | Shelf-life storage stability of pyriproxyfen 10EC density of pyriproxyfen 10EC – 24 month interim report Company Report No. NNF-0053 Valent USA corporation, USA GLP, Unpublished This report was available for review for Annex 1 inclusion, however is included since the data have been used in the evaluation PREVIOUSLY | N | N | NA | SUM |

|              |                  |       | SUBMITTED STUDY   |   |   |    |     |
|--------------|------------------|-------|---|---|---|----|-----|
|              |                  |       | ⇒ CP 2.1/01   |   |   |    |     |
| CP<br>2.7/01 | Kawashima,<br>M. | 2000b | Stability of pyriproxyfen 10% emulsifiable concentrate after storage for 14 days at 54°C Sumitomo Chemical Co., Ltd. Report No. NNF-0044 Not GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY                     | Z | N | NA | SUM |
| CP<br>2.7/03 | Reitz, G.A.      | 2003  | Shelf-life storage stability of pyriproxyfen 10EC density of pyriproxyfen 10EC – 24 month interim report Company Report No. NNF-0053 Valent USA corporation, USA GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY | Z | N | NA | SUM |

|                |                  |      | ⇒ CP 2.1/01   |   |   |  |     |
|----------------|------------------|------|---|---|---|--|-----|
| CP<br>2.7/04   | de Ryckel,<br>B. | 2015 | Pyriproxyfen 100 g/L EC: low temperature stability storage and persistent foaming (ID: TN01) Company Report No. NNF-0078 Walloon Agricultural Research Centre, Belgium GLP, Unpublished New guideline compliant study NEW STUDY   | N | Y | Data protection is<br>claimed in<br>accordance with<br>Article 59 of<br>Regulation (EC)<br>No. 1107/2009 | SUM |
| CP<br>2.8.2/01 | Bernes, A.       | 2002 | Some physical and chemical properties for pyriproxyfen 10 EC Company Report No. NNF-0048 Personnalité Juridique du centre de Recherches Agronomiques, Belgium GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY  \$\Rightarrow CP 2.2/01 | N | N | NA   | SUM |
| CP<br>2.8.2/02 | de Ryckel,<br>B. | 2015 | Pyriproxyfen 100 g/L<br>EC: low temperature<br>stability storage and  | N | Y | Data protection is claimed in accordance with  | SUM |

|                |             |      | persistent foaming (ID: TN01) Company Report No. NNF-0078 Walloon Agricultural Research Centre, Belgium GLP, Unpublished New guideline compliant study NEW STUDY ⇒ CP 2.7/04  |   |   | Article 59 of<br>Regulation (EC)<br>No. 1107/2009 |     |
|----------------|-------------|------|---|---|---|---|-----|
| CP<br>2.8.6/01 | Reitz, G.A. | 2003 | Shelf-life storage stability of pyriproxyfen 10EC density of pyriproxyfen 10EC – 24 month interim report Company Report No. NNF-0053 Valent USA corporation, USA GLP, Unpublished This report was available for review for Annex 1 inclusion, however it is included since the data have been used in the evaluation PREVIOUSLY SUBMITTED STUDY $\Rightarrow$ CP 2.1/01 | N | N | NA  | SUM |

## **B.3 Data on application**

#### References for pyriproxyfen

None

#### References for pyriproxyfen 100 g/L EC

None

#### **B.4 Further information**

#### References for pyriproxyfen

None

#### References for pyriproxyfen 100 g/L EC

| Data<br>point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|
| СР            | deRyckel, | 2015 | PYR 10 EC and   | N                          | Υ                                    | Data protection is                                   | SUM   |
| 4.2/04        | В.        |      | PYRIPROXYFEN 100 g/L  |                            |                                      | claimed in   |       |
|               |           |      | EW: effectiveness of  |                            |                                      | accordance with                                      |       |
|               |           |      | cleaning procedure of   |                            |                                      | Article 59 of  |       |
|               |           |      | application equipment   |                            |                                      | Regulation (EC) No.                                  |       |
|               |           |      | Company Report No.  |                            |                                      | 1107/2009  |       |
|               |           |      | NNG-0082  |                            |                                      |  |       |
|               |           |      | Walloon Agricultural  |                            |                                      |  |       |
|               |           |      | Research Centre,  |                            |                                      |  |       |
|               |           |      | Belgium   |                            |                                      |  |       |
|               |           |      | GLP, Unpublished  |                            |                                      |  |       |
|               |           |      | Study submitted to meet   |                            |                                      |  |       |
|               |           |      | data requirements   |                            |                                      |  |       |
|               |           |      | NEW STUDY   |                            |                                      |  |       |

## **B.5 Methods of analysis**

#### References for pyriproxyfen

| Data<br>point  | Author(s)         | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|----------------|-------------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>4.1.1/05 | Reitz, G.A.       | 2009a | Analytical method validation for the quantitation of pyriproxyfen in pyriproxyfen technical grade Company Report No. NNA-0105 Valent Technical Center, USA GLP, Unpublished                  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>4.1.1/08 | Reitz, G.A.       | 2009b | Analytical method validation for the quantitation of production process impurities in pyriproxyfen technical grade Company Report No. NNA-0106 Valent Technical Center, USA GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>4.1.1/09 | Yanagisawa,<br>Y. | 2016b | Confirmation of analyte identification in pyriproxyfen technical grade (Impurity #1) Company Report No.: NNP-125 Not GLP, Unpublished  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>4.1.2/01 |                   | 2010  | An oral (gavage) dose range-finding acute neurotoxicity study of pyriproxyfen T.G. in rats   | Y                          | Y                                    | Data protection is claimed in accordance  | SUM   |

|                |   |       | GLP, Unpublished   |   |   | with Article 59 of Regulation (EC) No. 1107/2009  |     |
|----------------|---|-------|--|---|---|---|-----|
| CA<br>4.1.2/02 | Tobimatsu,<br>M.                        | 2010  | Validation of an analytical method for pyriproxyfen T.G. in corn oil suspension Company Report No. NNA-0124 GLP, Unpublished   | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/04 | Kakuta, Y.<br>Ohnishi, J.<br>Yamada, H. | 1989  | Residue analytical<br>method for pyriproxyfen<br>in tomato<br>Company Report No.<br>NNA-90-0016<br>Not GLP, Unpublished  | N | Y | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009                   | SUM |
| CA<br>4.1.2/05 | Green, C.A.                             | 1998  | Magnitude of the residue of pyriproxyfen in/on oranges and orange processing fractions Company Report No. NNR-0058 Valent U.S.A Corporation, USA GLP, Unpublished  | N | N | NA  | SUM |
| CA<br>4.1.2/06 | Weber, H.,<br>Pelz, S.                  | 2000b | Validation of DFG method S19 (extended revision) for the determination of residues of pyriproxyfen in samples of fruits with high acid content (citrus) Company Report No. NNA-0078 European Agriculture Services, France GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |

| CA<br>4.1.2/08 | Daneva, E.,<br>Zetzsch, A. | 2010 | Validation of an analytical method for determination of residues of pyriproxyfen in apples, a representative of high water crops Company Report No. NNA-0113 Eurofins Dr Specht GLP GmbH, Germany GLP, Unpublished         | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
|----------------|----------------------------|------|--|---|---|---|-----|
| CA<br>4.1.2/09 | Lindner, M.                | 2010 | Validation of analytical methods for the determination of residues of pyriproxyfen in citrus (dry pomace from juice pressing) and citrus Company Report No. NNA-0112 Eurofins Dr Specht GLP GmbH, Germany GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/10 |                            | 2012 | Pyriproxyfen – Amphibian Metamorphosis Assay with African Clawed Frog (Xenopus laevis) Following OPPTS Test Guideline 890.1100 and OECD Test Guideline 231 GLP, Unpublished  | Y | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/11 |                            | 2012 | Pyriproxyfen – Short-<br>Term Reproduction<br>Assay with Fathead   | Υ | Y | Data protection is claimed in accordance  | SUM |

|                |             |       | Minnow ( <i>Pimephales promelas</i> ) Following OPPTS Guideline 890.1350 and OECD Guideline 229  GLP, Unpublished  |   |   | with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009   |     |
|----------------|-------------|-------|--|---|---|---|-----|
| CA<br>4.1.2/12 |             | 2009a | DPH-Pyr (metabolite of pyriproxyfen): Acute toxicity to rainbow trout (Oncorhynchus mykiss) under static acute conditions  | Y | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/13 | Hamitou, M. | 2009b | DPH-Pyr (metabolite of pyriproxyfen): Acute toxicity to water fleas ( <i>Daphnia magna</i> ) under static acute conditions Company Report No. NNW-0191 Springborn Smithers Laboratories (Europe), Switzerland GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/14 |             | 2015a | Acute toxicity study of PYPA with rainbow trout (Oncorhynchus mykiss)  GLP, Unpublished  | Y | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |

| CA<br>4.1.2/15 | Hara, T.    | 2015b | Acute immobilization<br>study of PYPA with<br>Daphnia magna<br>Company Report No.<br>NNW-0221<br>GLP, Unpublished  | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
|----------------|-------------|-------|--|---|---|---|-----|
| CA<br>4.1.2/16 | Hara, T.    | 2015c | Acute toxicity study of PYPA with freshwater green alga, Pseudokirchneriella subcapitata Company Report No. NNW-0224 GLP, Unpublished  | N | Y | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009                   | SUM |
| CA<br>4.1.2/17 | Dionne, E.  | 1998  | Sumilarv T.G. – Acute toxicity to eastern oyster ( <i>Crassostrea virginica</i> ) under flow-through conditions Company Report No. NNW-0138 Springborn Laboratories Inc., USA GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/18 | Sousa, J.V. | 1999  | Sumilarv T.G. – Acute toxicity to mysids (Mysidopsis bahia) under flow-through conditions Company Report No. NNW-0139 Springborn Laboratories Inc., USA GLP, Unpublished                       | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.1.2/19 | Shaw, A.C.  | 2015a | 4'-OH-Pyr –Full Life-<br>Cycle toxicity test with<br>water fleas, <i>Daphnia</i>   | N | Υ | Data protection is claimed in accordance  | SUM |

| magna, under flow-                               | with Article 59     |
|--|---------------------|
| through conditions                               | of Regulation       |
| following OECD                                   | (EC) No.            |
| Guideline #211                                   | 1107/2009           |
| Company Report No.                               |                     |
| NNW-0238   |                     |
| Smithers Viscient, USA                           |                     |
| GLP, Unpublished                                 |                     |
| CA Shaw, A.C. 2015b DPH-Pyr –Full Life-Cycle N Y | Data protection SUM |
| 4.1.2/20 toxicity test with water                | is claimed in       |
| fleas, Daphnia magna,                            | accordance          |
| under flow-through                               | with Article 59     |
| conditions following                             | of Regulation       |
| OECD Guideline #211                              | (EC) No.            |
| Company Report No.                               | 1107/2009           |
| NNW-0239   |                     |
| Smithers Viscient, USA                           |                     |
| GLP, Unpublished                                 |                     |
| CA Picard, C. 2015 42-Day Toxicity test N Y      | Data protection SUM |
| 4.1.2/21 exposing freshwater                     | is claimed in       |
| amphipods ( <i>Hyalella</i>                      | accordance          |
| azteca) to pyriproxyfen                          | with Article 59     |
| applied to sediment                              | of Regulation       |
| under static-renewal                             | (EC) No.            |
| conditions following EPA                         | 1107/2009           |
| test methods                                     |                     |
| Company Report No.                               |                     |
| NNW-0243   |                     |
| Smithers Viscient, USA                           |                     |
| GLP, Unpublished                                 |                     |
| CA Patnaude, 2015 Pyriproxyfen T.G.: 22- N Y     | Data protection SUM |
| 4.1.2/22 M.R. Day survival of honey              | is claimed in       |
| bee larvae, Apis                                 | accordance          |
| mellifera L., during an In                       | with Article 59     |
| Vitro exposure                                   | of Regulation       |
| Company Report No.                               | (EC) No.            |
| NNW-0242   | 1107/2009           |
| Smithers Viscient, USA                           | 1                   |
| GLP, Unpublished                                 |                     |

| CA<br>4.2/03 | Lindner, M.               | 2014  | Validation of the multi- residue method QuEChERS for the determination of pyriproxyfen in different matrices of plant origin Company Report No. NNA-0117 Eurofins Agrosciences Services, Germany GLP, Unpublished      | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
|--------------|---------------------------|-------|--|---|---|---|-----|
| CA<br>4.2/04 | Lindner, M.,<br>Grewe, D. | 2015  | Validation of the multi- residue method QuEChERS for the determination of pyriproxyfen in different matrices of animal origin Company Report No. NNA-0118 Eurofins Agrosciences Services, Germany GLP, Unpublished     | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.2/05 | Maas, X.                  | 2015  | Independent Laboratory Validation of the multi- residue method QuEChERS for the determination of pyriproxyfen in different matrices of animal origin Company Report No. NNA-0122 PRTL Europe, Germany GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.2/06 | Wolf, S.                  | 2002a | Validation of the BBA multi method L 00.00-34 (§ 35 LMBG, Nov. 1999) for the determination of pyriproxyfen in soil Company Report No. NNA-0091   | N | N | NA  | SUM |

|              |                              |       | RCC Ltd., Switzerland<br>GLP, Unpublished  |   |   |   |     |
|--------------|------------------------------|-------|--|---|---|---|-----|
| CA<br>4.2/09 | Lindner, M.,<br>Leischow, J. | 2015a | Validation of an analytical method for the determination of pyriproxyfen in surface water Company Report No. NNA-0120 Eurofins Agrosciences Services, Germany GLP, Unpublished                         | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.2/10 | Merdian, H.                  | 2009  | Pyriproxyfen: Independent Laboratory Validation of method NNA-0092 for the determination of pyriproxyfen in water Company Report No. NNA-107 PRTL Europe, Germany GLP, Unpublished                     | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.2/11 | Lindner, M.,<br>Leischow, J. | 2015b | Independent Laboratory Validation of an analytical method for the determination of pyriproxyfen in drinking water Company Report No. NNA-0121 Eurofins Agrosciences Services, Germany GLP, Unpublished | N | Y | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM |
| CA<br>4.2/12 | Wais, A.                     | 2001b | Development and validation of the residue analytical method for pyriproxyfen in air Company Report No. NNA-0085 RCC Ltd., Switzerland  | N | N | NA  | SUM |

| GLP, Unpublished                        |  |  |
|---|--|--|
| , |  |  |

#### References for pyriproxyfen 100 g/L EC

| Data<br>point  | Author(s)            | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed   | Owner |
|----------------|----------------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>5.1.1/01 | Reitz, G.A           | 2001  | Quantitation of pyriproxyfen in pyriproxyfen 10 EC Company Report No. NNA-0090 Valent Technical Center, USA GLP, Unpublished  | N                          | N                                    | NA   | SUM   |
| CP<br>5.1.1/02 | Jean-<br>Baptiste, C | 2016  | Method validation and determination of toluene content in one batch of PYRIPROXYFEN 10 EC Company report no. NNA-0130 ANADIAG study B6306 GLP Unpublished   | N                          | Y                                    | Data protection<br>is claimed in<br>accordance with<br>Article 59 of<br>Regulation (EC)<br>No. 1107/2009 | SUM   |
| CP<br>5.1.2/01 | Sindermann,<br>A.B.  | 2014a | Pyriproxyfen EC formulation: A toxicity test to determine the effects of the test substance on seedling emergence of ten species of plants Company Report No. NNW-0222 Wildlife International, USA GLP, Unpublished | N                          | Y                                    | Data protection<br>is claimed in<br>accordance with<br>Article 59 of<br>Regulation (EC)<br>No. 1107/2009 | SUM   |
| CP<br>5.1.2/02 | Sindermann,<br>A.B., | 2014b | Pyriproxyfen EC formulation: A toxicity test to determine the effects of the test substance on vegetative vigour of ten   | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of  | SUM   |

| species of plant Company Report No. NNW-0223 Wildlife International, USA | Regulation (EC) No. 1107/2009 |
|--|-------------------------------|
| GLP, Unpublished   |                               |

## **B.6 Toxicology and metabolism**

#### References for pyriproxyfen

| Data<br>point  | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Verte-<br>brate<br>study<br>Y/N | Data<br>Protec-<br>tion<br>claimed<br>Y/N | Justifi-<br>cation<br>if data<br>protection<br>is<br>claimed | Owner |
|----------------|-----------|-------|--|---------------------------------|---|--|-------|
| CA<br>5.1.1/01 |           | 1998a | Metabolism of S-31183 in rats  GLP, Unpublished.   | Y                               | N   | NA   | SUM   |
| CA<br>5.1.1/02 |           | 1988b | Metabolism of S-31183 in rats (Tissue distribution study)  Not GLP, Unpublished  | Y                               | N   | NA   | SUM   |
| CA<br>5.1.1/03 |           | 1993a | Metabolism of phenoxyphenyl-14C-pyriproxyfen in rats (high-dose, 14C-concentrations in tissues)  GLP, Unpublished  | Y                               | N   | NA   | SUM   |
| CA<br>5.1.1/04 |           | 1993b | Metabolism of [pyridyl-2,6-  14C]pyriproxyfen in rats (pyridyl-14C-labeled test compound, single oral administration at low- and high doses)  GLP, Unpublished | Y                               | N   | NA   | SUM   |
| CA<br>5.1.1/05 |           | 1995  | Metabolism of pyriproxyfen 2. Comparison of <i>in vivo</i> metabolism between rats and mice  Not GLP, Published  | Y                               | N   | NA   |       |
| CA<br>5.1.1/06 | Peris, O. | 2018  | Pharmacokinetic<br>assessment of [14C]-<br>Pyriproxyfen in rat blood   | N                               |   |  | SUM   |

|                |  |       | samples. Test facility study<br>no. 179378.<br>Not GLP, unpublished   |   |   |    |     |
|----------------|--|-------|---|---|---|----|-----|
| CA<br>5.1.2/01 |  | 1996  | Metabolism of pyriproxyfen 3. <i>In vitro</i> metabolism in rats and mice.  Not GLP, Published  | Y | N | NA |     |
| CA<br>5.1.2/02 | Martignoni, M.,<br>Groothuis, G.,<br>de Kanter, R.     | 2006  | Species differences<br>between mouse, rat, dog,<br>monkey and human CYP-<br>mediated drug metabolism,<br>inhibition and induction.<br>Expert Opinion Drug<br>Metabolism and Toxicology,<br>2, 6:875-894<br>Not GLP, Published | N | N | NA |     |
| CA<br>5.1.2/03 | Wójcikowski,<br>J., Haduch, A.,<br>Wľadysľawa,<br>A.D. | 2013  | Effect of antidepressant<br>drugs on cytochrome P450<br>2C11 (CYP2C11) in rat<br>liver. Pharmacological<br>Reports, 65, 1247-1255<br>Not GLP, Published   | N | N | NA |     |
| CA<br>5.2.1/01 |  | 1987a | Acute oral toxicity of S-31183 in rats  GLP, Unpublished  | Υ | N | NA | SUM |
| CA<br>5.2.1/02 |  | 1987b | Acute oral toxicity of S-31183 in mice  GLP unpublished   | Y | N | NA | SUM |
|                |  | 1993  | Addendum to the final report: Acute oral toxicity of S-31183 in mice  | Y | N | NA | SUM |
| CA<br>5.2.1/03 |  | 1986  | Acute oral toxicity of S-31183 in dogs  GLP, Unpublished  | Y | N | NA | SUM |
| CA<br>5.2.2/01 |  | 1987c | Acute dermal toxicity of S-31183 in rats  | Y | N | NA | SUM |

|                                   |       | GLP, Unpublished  |   |   |    |     |
|-----------------------------------|-------|---|---|---|----|-----|
| CA<br>5.2.2/02                    | 1987d | Acute dermal toxicity of S-31183 in mice  GLP, Unpublished                      | Υ | N | NA | SUM |
|                                   | 1994  | Amendment to the final report: Acute dermal toxicity of S-31183 in mice         | Y | N | NA | SUM |
| CA<br>5.2.3/01                    | 1987  | Acute inhalation toxicity of S-31183 in rats  GLP, Unpublished                  | Y | N | NA | SUM |
| CA<br>5.2.3/02                    | 1987e | Acute inhalation toxicity of S-31183 in mice                                    | Y | N | NA | SUM |
|                                   | 1995  | Addendum to report: Acute inhalation toxicity of S-31183 in mice                | Y | N | NA | SUM |
| CA<br>5.2.4/01,<br>CA<br>5.2.5/01 | 1987f | Primary eye and skin irritation tests with S-31183 in rabbits  GLP, Unpublished | Y | N | NA | SUM |
| CA<br>5.2.6/01                    | 1987g | Skin sensitization test with S-31183 in guinea pigs                             | Y | N | NA | SUM |
|                                   | 1995  | Amendment of Report: Skin sensitization test with S-31183 in guinea pigs        | Y | N | NA | SUM |

| CA<br>5.2.7/01 | Nakagawa, M. | 2013  | In vitro 3T3 NRU phototoxicity study of pyriproxyfen T.G. in cultured mammalian cells Company Report No. NNT- 0214 Mitsubishi Cehmical Medicine corporation, Japan GLP, unpublished | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
|----------------|--------------|-------|---|---|---|---|-----|
| CA<br>5.3.1/01 |              | 1988a | One-month oral toxicity study of S-31183 in rats  GLP, Unpublished  | Y | N | NA  | SUM |
| CA<br>5.3.1/02 |              | 1987  | Four-week oral toxicity study of S-31183 in dogs  GLP, Unpublished  | Y | N | NA  | SUM |
| CA<br>5.3.2/01 |              | 1989  | Sub-chronic toxicity study with S-31183 in rats  GLP Unpublished  | Y | N | NA  | SUM |
| CA<br>5.3.2/02 |              | 1988b | Six-month chronic oral toxicity study of S-31183 in rats  GLP, Unpublished  | Y | Y | NA  | SUM |
| CA<br>5.3.2/03 |              | 1988  | Three-month oral toxicity study of S-31183 in dogs  GLP, Unpublished  | Y | N | NA  | SUM |
| CA<br>5.3.2/04 |              | 1991  | S-31183: Toxicity study by oral (capsule) administration to Beagle dogs for 52 weeks.  Amended final report   | Y | N | NA  | SUM |
| CA<br>5.3.2/05 |              | 1993  | S-31183: Toxicity study by oral (capsule) administration to beagle dogs for 52 weeks (additional investigation)   | Y | N | NA  | SUM |

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|------------------|---|------|---|---|---|----|-----|
|                  |   |      | GLP, Unpublished  |   |   |    |     |
| CA<br>5.3.3/01   |   | 1993 | 21-day dermal toxicity study in rats with S-31183  GLP, Unpublished   | Y | N | NA | SUM |
| CA<br>5.3.3/02   |   | 1988 | Sub-acute inhalation toxicity study of S-31183 in rats  GLP, Unpublished  | Y | N | NA | SUM |
| CA<br>5.4.1.1/01 | Kogiso, S.,<br>Hara, M.,<br>Yoshitake, A. | 1988 | Reverse mutation test of S-<br>31183 in bacterial systems<br>Company Report No: NNT-<br>80-0034<br>Sumitomo Chemical Co<br>Ltd.,<br>GLP, Unpublished              | N | N | NA | SUM |
| CA<br>5.4.1.2/01 |   | 1989 | In vitro chromosomal aberration test of pyriproxyfen in Chinese hamster ovary cells (CHO-K1)  | Y | N | NA | MUS |
| CA<br>5.4.1.3/01 | Kogiso, S.                                | 1990 | In vitro gene mutation test of S-31183 in V79 Chinese hamster cells Company Report No. NNT-90-0067 Biochemistry and Toxicology Laboratory, Japan GLP, Unpublished | N | N | NA | SUM |
| CA<br>5.4.1.3/02 |   | 1988 | Assessment of unscheduled DNA repair synthesis in mammalian cells after exposure to S-31183   | Y | N | NA | MUS |
| CA<br>5.4.2/01   |   | 1991 | Mouse micronucleus test on S-31183  GLP, Unpublished  | Y | N | NA | SUM |

| CA<br>5.5.1/01 |   | 1991a | Combined chronic toxicity and oncogenicity study in rats with S-31183  GLP, Unpublished                                      | Y | N | NA | SUM |
|----------------|---|-------|--|---|---|----|-----|
|                |   | 1994  | Addendum to the final report: Combined chronic toxicity and oncogenicity study in rats with S-31183  GLP, Unpublished        | Y | N | NA | SUM |
|                |   | 1994  | Amendment 1 & 2 to the final report: Combined chronic toxicity and oncogenicity study in rats with S-31183  GLP, Unpublished | Y | N | NA | SUM |
| CA<br>5.5.2/01 |   | 1991b | Oncogenicity study in mice with S-31183  GLP, Unpublished  | Y | N | NA | SUM |
|                |   | 1994  | Amendment to the final report: Oncogenicity study in mice with S-31183  GLP, Unpublished                                     | Y | N | NA | SUM |
|                |   | 1994  | Supplemental data and review of oncogenicity study with S-31183 (Sumilarv) in mice   | Y | N | NA | SUM |
| CA<br>5.6.1/01 |   | 1991  | A dietary 2-generation (1 litter) reproduction study of S-31183 in the rat.  | Y | N | NA | SUM |
| CA             | , | 1988a | Study by orally  | Υ | N | NA | SUM |

| 5.6.1/02         | Kitajima, S.,<br>Narama, I. | 4000  | administration of S-31183 to rats prior to and in the early stages of pregnancy  GLP, Unpublished   | N. |   |   |     |
|------------------|-----------------------------|-------|---|----|---|---|-----|
| CA<br>5.6.2.1/01 |                             | 1988b | Perinatal and postnatal study of S-31183 orally administered to rats  GLP, Unpublished  | Υ  | N | NA  | SUM |
| CA<br>5.6.2.1/02 |                             | 1988c | Study by administration of S-31183 during the period of fetal organogenesis in rats  GLP, Unpublished                                       | Y  | N | NA  | SUM |
| CA<br>5.6.2.1/02 |                             | 1989  | Addendum to the final report: Study by administration of S-31183 during the period of fetal organogenesis in rats  GLP, Unpublished         | Y  | N | NA  | SUM |
| CA<br>5.6.2.2/01 |                             | 1988  | Study of S-31183 by oral administration during the period of fetal organogenesis in rabbits  GLP, Unpublished                               | Y  | N | NA  | SUM |
| CA<br>5.6.2.2/01 |                             | 1994  | Addendum to the final report: Study of S-31183 by oral administration during the period of fetal organogenesis in rabbits  GLP, Unpublished | Y  | N | NA  | SUM |
| CA<br>5.7.1/01   |                             | 2010  | An oral (gavage) dose range-finding acute neurotoxicity study of pyriproxyfen T.G. in rats  GLP, Unpublished                                | Y  | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |

| CA<br>5.7.1/02 |                         | 2011a | An oral (gavage) acute neurotoxicity study of pyriproxyfen T.G. in rats  GLP, Unpublished  | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
|----------------|-------------------------|-------|--|---|---|---|-----|
| CA<br>5.7.1/03 |                         | 2011b | An 90-day oral dietary neurotoxicity study of pyriproxyfen T.G. in rats  GLP, Unpublished  | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.1/01 |                         | 2011  | Acute oral toxicity study of PYPAC in rats  GLP, Unpublished   | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.1/02 | Kitamoto, S.            | 2010a | Reverse mutation test of<br>PYPAC in bacterial systems<br>Company Report No. NNT-<br>0190<br>Environmental Health<br>Science Laboratory, Japan<br>GLP, Unpublished               | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.1/03 | Wollny, H.              | 2010  | Gene mutation assay in Chinese Hamster V79 cells in vitro (V79/HPRT) with PYPAC Company Report No. NNT- 0191 Haylan Cytotest Cell Research GmbH, Germany GLP, Unpublished        | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.1/04 | Kitamoto, S.            | 2010b | In vitro chromosomal aberration test on PYPAC in Chinese hamster lung cells (CHL/IU) Company Report No. NNT-0189 Environmental Health Science Laboratory, Japan GLP, Unpublished | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.1/05 | Bowen, D. and Bowen, R. | 2018  | Expert review of QSAR analysis undertaken on   | N |   |   |     |

|                | 1          |       | -   |   | 1 | T   | ,   |
|----------------|------------|-------|---|---|---|---|-----|
|                |            |       | pyriproxyfen and its related metabolites. Report No. 0387879-TOX2.  |   |   |   |     |
| CA<br>5.8.1/06 | Hara, M.   | 1993  | Non-GLP, unpublished Reverse mutation test of metabolites of pyriproxyfen, 4'OH-Pyr, 5"-OH-Pyr, DPH-Pyr, POPA and PYPAC, in bacterial systems (translation of Japanese original). Unpublished report no. NNT-30-0104 Non-GLP, unpublished | N |   |   |     |
| CA<br>5.8.2/01 |            | 2011  | Pyriproxyfen: 4 week dietary immunotoxicity study in the female CD-1 mouse  GLP, Unpublished  | Υ | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.3/01 | Mikata, K. | 2011a | In vitro estrogen receptor binding assay of pyriproxyfen T.G. with rat uterine cytosol Company Report No. NNT-0209 Environmental Health Science Laboratory, Japan GLP, Unpublished  | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | MUS |
| CA<br>5.8.3/02 | Mikata, K. | 2011b | In vitro androgen receptor binding assay of pyriproxyfen T.G. with rat prostate cytosol Company Report No. NNT-0207 Environmental Health Science Laboratory, Japan GLP, Unpublished   | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.3/03 | Mikata, K. | 2011c | In vitro inhibition assay of pyriproxyfen T.G. in human recombinant aromatase Company Report No. NNT-0206 Environmental Health Science Laboratory, Japan GLP, Unpublished   | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |
| CA<br>5.8.3/04 | Mikata, K. | 2011d | In vitro steroidogenesis assay of pyriproxyfen T.G. with H295R cell line Company Report No. NNT- 0208 Environmental Health Science Laboratory, Japan GLP, Unpublished   | N | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No.           | SUM |

|                |      |       |  |   |   | 1107/2009  |     |
|----------------|------|-------|--|---|---|--|-----|
| CA<br>5.8.3/05 |      | 2005  | Uterotrophic assay of pyriproxyfen by oral route using juvenile rat: investigation on estrogenic effect  Not GLP, Unpublished  | Υ | Υ | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009              | SUM |
| CA<br>5.8.3/06 |      | 2011  | Herschberger assay of pyriproxyfen T.G. administered orally in male rats  Science Laboratory, Japan GLP, Unpublished   | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009              | SUM |
| CA<br>5.8.3/07 |      | 2012a | A pubertal development and thyroid functions assay of pyriproxyfen T.G. administered orally in intact juvenile/peripubertal male rats                                | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009              | SUM |
| CA<br>5.8.3/08 |      | 2012  | Effects of pyriproxyfen on testosterone level and thyroid gland in intact juvenile/peripubertal male rats  GLP, Unpublished  | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009              | SUM |
| Z              |      | 2012b | A pubertal development and thyroid function assay of pyriproxyfen T.G. administered orally in intact juvenile/peripubertal female rats                               | Y | Y | New study. Data protection claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009              | SUM |
| CA<br>5.8.3/10 | Anon | 2012  | A weight of evidence of the EDSP Tier 1 studies of pyriproxyfen T.G. Company Report No. NNT-0213 Environmental Health Science Laboratory, Japan Not GLP, Unpublished | N | Y | Data<br>protection<br>claimed in<br>accordance<br>with Article<br>59 of<br>Regulation<br>(EC) No.<br>1107/2009 | SUM |

| CA<br>5.9.1/01 | Nishioka, Y.  | 2016 | Report on health status of factory workers engaged in manufacturing of pyriproxyfen technical material.  Company Report No. NNT-0222 Unpublished   | N | N | NA                   | SUM |
|----------------|---|------|--|---|---|----------------------|-----|
| CA<br>5.9.4/01 | Parens R,<br>Nijhout HF,<br>Morales A,<br>Xavier Costa<br>F, Bar-Yam Y          | 2017 | A possible link between pyriproxyfen and microcephaly.  PLOS Currents Outbreaks, Nov 27, 2017  Non-GLP, Published  | N | N | Public<br>literature |     |
| CA<br>5.9.4/02 | Audouze K,<br>Taboureau O,<br>Grandjean P.                                      | 2018 | A systems biology approach to predictive developmental neurotoxicity of a larvicide used in the prevention of Zika virus transmission.  Toxicology and Applied Pharmacology 2018 Sep 1; 354-56-63 Non-GLP, Published | N | N | Public<br>literature |     |
| CA<br>5.9.4/03 | Dzieciolowska<br>S, Larroque A-<br>L, Kranjec E-A,<br>Drapeau P,<br>Samarut E   | 2017 | The larvicide pyriproxyfen blamed during the Zika virus outbreak does not cause microcephaly in zebrafish embryos Nature Scientific Reports 7, article nr 40067 (2017) Non-GLP, Published                            | N | N | Public<br>literature |     |
| CA<br>5.9.4/04 | de Araujo,<br>T.V.B. et al  | 2018 | Association between microcephaly, Zika virus infection, and other risk factors in Brazil: final report of a case-control study <i>The Lancet Infectious Diseases</i> , Vol 18, issue 3, pp 328-36 Non-GLP, Published | N | N | Public<br>literature |     |
| CA<br>5.9.4/05 | de<br>Albuquerque<br>M., de Souza<br>W, Mendes A,<br>Lyra T,<br>Ximines R et al | 2016 | Pyriproxyfen and the microcephaly epidemic in Brazil – an ecological approach to explore the hypothesis of their association Memorias do Instituto Oswaldo Cruz 2016 Non-GLP, Published                              | N | N | Public<br>literature |     |

# References for pyriproxyfen 100 g/L EC

| Data<br>point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>Protec-<br>tion<br>claimed<br>Y/N | Justifica-<br>tion<br>if data<br>protection<br>is<br>claimed | Owner |
|---------------|-----------|------|---|----------------------------|---|--|-------|
|---------------|-----------|------|---|----------------------------|---|--|-------|

| CP<br>7.1.1/01 | 1995a | Acute oral toxicity study with pyriproxyfen (V- 71639) 0.83 EC in rats   | Υ | N | NA | SUM |
|----------------|-------|--|---|---|----|-----|
| CP<br>7.1.2/01 | 1995b | Acute dermal toxicity study with pyriproxyfen (V-71639) 0.83 EC in rabbits  GLP, unpublished                     | Υ | N | NA | SUM |
| CP<br>7.1.3/01 | 1995c | An acute (4-hour) inhalation toxicity study of pyriproxyfen (V- 71639) 0.83 EC in the rat via nose-only exposure | Y | N | NA | SUM |
| CP<br>7.1.4/01 | 1995d | Primary dermal irritation study with pyriproxyfen  | Y | N | NA | SUM |

|                |       | (V-71639) 0.83 EC in rabbits   |   |   |    |     |
|----------------|-------|--|---|---|----|-----|
| CP<br>7.1.5/01 | 1995e | GLP, unpublished  Primary eye irritation study with pyriproxyfen (V-71639) 0.83 EC in rabbits  GLP, unpublished            | Y | N | NA | SUM |
| CP<br>7.1.6/01 | 1995f | Closed-patch repeated insult dermal sensitization study with pyriproxyfen (V-71639) 0.83 EC in guinea pig (Buehler method) | Y | N | NA | SUM |
| Cp<br>7.1.6/02 | 1999  | Pyriproxyfen 10 EC – sensitising potential in the guinea-pig:  Maximisation & Kligman                                      | Υ | N | NA | SUM |

|              |                 |      | test (G.P.M.T.)  GLP, unpublished   |   |   |   |     |
|--------------|-----------------|------|---|---|---|---|-----|
| CP<br>7.3/01 | Davies,<br>D.J. | 2003 | Pyriproxyfen 100 g/K EC formulation: <i>in vitro</i> absorption of pyriproxyfen through human and rat epidermis Company Report No.: NNM-0079 Central Toxicology Laboratory, Cheshire, UK GLP, unpublished | N | N | NA  | SUM |
| CP<br>7.3/02 |                 | 2016 | [14C]-Pyriproxyfen 10EC formulation: Main <i>in vivo</i> dermal penetration study in rats   | Y | Y | New study Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM |

### **B.7 Residues**

# References for pyriproxyfen

| Data<br>point  | Author(s)          | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed  | Owner |
|----------------|--------------------|------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>6.1/03   | Green,<br>C.A.     | 1998 | Magnitude of the residue of pyriproxyfen in/on oranges and orange processing fractions Company Report No. NNR-0058 Valent USA Corporation, USA GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009                   | SUM   |
| CA<br>6.2.1/04 | Herczog,<br>K.J.S. | 2004 | The Metabolism of [14C] Pyriproxyfen in citrus Company Report No. NNM-0082 Ricerca Biosciences LLC, USA GLP, Unpublished Study submitted to satisfy data   | N                          | Y                                    | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM   |

| Data<br>point  | Author(s)                | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|----------------|--------------------------|-------|---|----------------------------|--------------------------------------|--|-------|
|                |                          |       | requirements  |                            |                                      |  |       |
|                |                          |       | NEW STUDY   |                            |                                      |  |       |
| CA<br>6.2.1/05 | Kouno, A.,<br>Nambu, K., | 1990  | Metabolism of <sup>14</sup> C-<br>Pyriproxyfen in   | N                          | Υ                                    | Data protection is claimed in                        | SUM   |
|                | Yamada,                  |       | cucumber plants   |                            |                                      | accordance   |       |
|                | Н.                       |       | Company Report  |                            |                                      | with Article 59                                      |       |
|                |                          |       | No. NNM-0018  |                            |                                      | of Regulation  |       |
|                |                          |       | Not GLP,  |                            |                                      | (EC) No.   |       |
|                |                          |       | Unpublished   |                            |                                      | 1107/2009  |       |
|                |                          |       | Study submitted   |                            |                                      |  |       |
|                |                          |       | to satisfy data   |                            |                                      |  |       |
|                |                          |       | requirements  |                            |                                      |  |       |
|                |                          |       | NEW STUDY   |                            |                                      |  |       |
| CA             | Grolleau,                | 2000a | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.1/01       | G.                       |       | residue of  |                            |                                      | is claimed in  |       |
|                |                          |       | pyriproxyfen in   |                            |                                      | accordance   |       |
|                |                          |       | orange Raw  |                            |                                      | with Article 59                                      |       |
|                |                          |       | Agricultural  |                            |                                      | of Regulation  |       |
|                |                          |       | Commodity, Greece   |                            |                                      | (EC) No.   |       |
|                |                          |       | and Italy – 1999  |                            |                                      | 1107/2009  |       |
|                |                          |       | Company Report<br>No. NNR-0070  |                            |                                      |  |       |
|                |                          |       | European  |                            |                                      |  |       |
|                |                          |       | Agricultural  |                            |                                      |  |       |
|                |                          |       | Services, France  |                            |                                      |  |       |
|                |                          |       | GLP, Unpublished  |                            |                                      |  |       |
|                |                          |       | Study submitted   |                            |                                      |  |       |
|                |                          |       | to satisfy data   |                            |                                      |  |       |
|                |                          |       | requirements  |                            |                                      |  |       |
|                |                          |       | NEW STUDY   |                            |                                      |  |       |

| Data<br>point  | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed   | Owner |
|----------------|-----------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>6.3.1/02 | Grolleau,<br>G. | 2001a | Magnitude of the residue of pyriproxyfen in orange Raw Agricultural Commodity, Italy – 2000 Company Report No. NNR-0078 European Agricultural Services, France GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>6.3.1/03 | Grolleau,<br>G. | 2001b | Magnitude of the residue of pyriproxyfen in orange Raw Agricultural Commodity, Spain – 2000 Company Report No. NNR-0081 European Agricultural Services, France GLP, Unpublished Study submitted  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data<br>point  | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed  | Owner |
|----------------|-----------------|-------|---|----------------------------|--------------------------------------|---|-------|
|                |                 |       | to satisfy data   |                            |                                      |   |       |
|                |                 |       | requirements  |                            |                                      |   |       |
|                |                 |       | NEW STUDY   |                            |                                      |   |       |
| CA<br>6.3.1/04 | Grolleau,<br>G. | 2000b | Magnitude of the residue of pyriproxyfen in mandarin Raw Agricultural Commodity, Greece and Italy – 1999 Company Report No. NNR-0071 European Agricultural Services, France GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009                   | SUM   |
| CA<br>6.3.1/05 | Grolleau,<br>G. | 2001c | Magnitude of the residue of pyriproxyfen in mandarin Raw Agricultural Commodity, Greece – 2000 Company Report No. NNR-0082 European Agricultural  | N                          | Y                                    | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM   |

| Data<br>point  | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  Services, France   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|----------------|-----------------|-------|---|----------------------------|--------------------------------------|---|-------|
|                |                 |       | GLP, Unpublished  |                            |                                      |   |       |
|                |                 |       | Study submitted   |                            |                                      |   |       |
|                |                 |       | to satisfy data   |                            |                                      |   |       |
|                |                 |       | requirements  |                            |                                      |   |       |
|                |                 |       | NEW STUDY   |                            |                                      |   |       |
| CA<br>6.3.1/06 | Grolleau,<br>G. | 2001d | Magnitude of the residue of pyriproxyfen in mandarin Raw Agricultural Commodity, Greece – 2000 Company Report No. NNR-0079 European Agricultural Services, France GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>6.3.1/07 | Grolleau,<br>G. | 2001e | Magnitude of the residue of pyriproxyfen in mandarin Raw Agricultural Commodity, Spain – 2000   | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data<br>point  | Author(s)       | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not                                | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed  | Owner |
|----------------|-----------------|------|--|----------------------------|--------------------------------------|---|-------|
|                |                 |      | Company Report   |                            |                                      |   |       |
|                |                 |      | No. NNR-0083   |                            |                                      |   |       |
|                |                 |      | European   |                            |                                      |   |       |
|                |                 |      | Agricultural   |                            |                                      |   |       |
|                |                 |      | Services, France   |                            |                                      |   |       |
|                |                 |      | GLP, Unpublished   |                            |                                      |   |       |
|                |                 |      | Study submitted  |                            |                                      |   |       |
|                |                 |      | to satisfy data  |                            |                                      |   |       |
|                |                 |      | requirements   |                            |                                      |   |       |
|                |                 |      | NEW STUDY  |                            |                                      |   |       |
| CA<br>6.3.2/01 | Grolleau,<br>G. | 2011 | Magnitude of the residue of pyriproxyfen in apple Raw Agricultural Commodity, Northern and Southern Europe – 2010 Company Report | N                          | Y                                    | Data protection<br>is claimed in<br>accordance<br>with Article 59<br>of Regulation<br>(EC) No.<br>1107/2009 | SUM   |
|                |                 |      | No. NNR-0227   |                            |                                      |   |       |
|                |                 |      | Staphyt, France  |                            |                                      |   |       |
|                |                 |      | GLP, Unpublished   |                            |                                      |   |       |
|                |                 |      | Study submitted  |                            |                                      |   |       |
|                |                 |      | to satisfy data  |                            |                                      |   |       |
|                |                 |      | requirements   |                            |                                      |   |       |
|                |                 |      | NEW STUDY  |                            |                                      |   |       |
| CA<br>6.3.2/02 | Bousquet,<br>C. | 2015 | Magnitude of the residue of pyriproxyfen in  | N                          | Y                                    | Data protection is claimed in accordance  | SUM   |

| Data<br>point | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-----------|-------|---|----------------------------|--------------------------------------|--|-------|
|               |           |       | apple (Raw  |                            |                                      | with Article 59                                      |       |
|               |           |       | Agricultural  |                            |                                      | of Regulation  |       |
|               |           |       | Commodity) in   |                            |                                      | (EC) No.   |       |
|               |           |       | Southern Europe –   |                            |                                      | 1107/2009  |       |
|               |           |       | 2014  |                            |                                      |  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0265  |                            |                                      |  |       |
|               |           |       | SGS AGRI MIN,   |                            |                                      |  |       |
|               |           |       | France  |                            |                                      |  |       |
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | NEW STUDY   |                            |                                      |  |       |
| CA            | Grolleau, | 2001f | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.3/01      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in field   |                            |                                      | accordance   |       |
|               |           |       | tomato Raw  |                            |                                      | with Article 59                                      |       |
|               |           |       | Agricultural  |                            |                                      | of Regulation  |       |
|               |           |       | Commodity, Greece   |                            |                                      | (EC) No.   |       |
|               |           |       | <b>– 2001</b>   |                            |                                      | 1107/2009  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0108  |                            |                                      |  |       |
|               |           |       | European  |                            |                                      |  |       |
|               |           |       | Agricultural  |                            |                                      |  |       |
|               |           |       | Services, France  |                            |                                      |  |       |
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data requirements  |                            |                                      |  |       |
|               |           |       | NEW STUDY   |                            |                                      |  |       |
|               |           |       | 1,1211 31001  |                            |                                      |  |       |

| Data<br>point  | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed   | Owner |
|----------------|-----------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>6.3.3/02 | Grolleau,<br>G. | 2001g | Magnitude of the residue of pyriproxyfen in field tomato Raw Agricultural Commodity, Italy – 2001 Company Report No. NNR-0109 European Agricultural Services, France GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>6.3.3/03 | Grolleau,<br>G. | 2001h | Magnitude of the residue of pyriproxyfen in field tomato Raw Agricultural Commodity, Spain – 2001 Company Report No. NNR-0110 European Agricultural Services, France GLP, Unpublished Study submitted  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data<br>point  | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed   | Owner |
|----------------|-----------------|-------|--|----------------------------|--------------------------------------|---|-------|
|                |                 |       | to satisfy data  |                            |                                      |   |       |
|                |                 |       | requirements   |                            |                                      |   |       |
|                |                 |       | NEW STUDY  |                            |                                      |   |       |
| CA<br>6.3.3/04 | Bousquet,<br>C. | 2014  | Magnitude of the residue of pyriproxyfen in field tomato Raw Agricultural Commodity, Southern Europe – 2013 Company Report No. NNR-0258 SGS AGRI MIN, France GLP, Unpublished Study submitted to satisfy data requirements NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>6.3.4/01 | Grolleau,<br>G. | 2000c | Magnitude of the residue of pyriproxyfen in greenhouse tomato Raw Agricultural Commodity, Greece and Italy 1999 Company Report No. NNR-0067 European Agricultural  | N                          | N                                    | N/A   | SUM   |

| Data<br>point | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  Services, France | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-----------|-------|---|----------------------------|--------------------------------------|--|-------|
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | PREVIOUSLY<br>SUBMITTED<br>STUDY  |                            |                                      |  |       |
| CA            | Grolleau, | 2001i | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.4/02      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in   |                            |                                      | accordance   |       |
|               |           |       | greenhouse tomato   |                            |                                      | with Article 59                                      |       |
|               |           |       | Raw Agricultural  |                            |                                      | of Regulation  |       |
|               |           |       | Commodity, Spain  |                            |                                      | (EC) No.   |       |
|               |           |       | 1999  |                            |                                      | 1107/2009  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0085  |                            |                                      |  |       |
|               |           |       | European  |                            |                                      |  |       |
|               |           |       | Agricultural  |                            |                                      |  |       |
|               |           |       | Services, France<br>GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | ·   |                            |                                      |  |       |
|               |           |       | Study submitted to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | PREVIOUSLY  |                            |                                      |  |       |
|               |           |       | SUBMITTED   |                            |                                      |  |       |
|               |           |       | STUDY   |                            |                                      |  |       |
| CA            | Grolleau, | 2001j | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.4/03      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in   |                            |                                      | accordance   |       |

| Data<br>point | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-----------|-------|---|----------------------------|--------------------------------------|--|-------|
|               |           |       | greenhouse tomato   |                            |                                      | with Article 59                                      |       |
|               |           |       | Raw Agricultural  |                            |                                      | of Regulation  |       |
|               |           |       | Commodity and   |                            |                                      | (EC) No.   |       |
|               |           |       | processed fractions   |                            |                                      | 1107/2009  |       |
|               |           |       | Greece - 2000   |                            |                                      |  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0086  |                            |                                      |  |       |
|               |           |       | European  |                            |                                      |  |       |
|               |           |       | Agricultural  |                            |                                      |  |       |
|               |           |       | Services, France  |                            |                                      |  |       |
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | PREVIOUSLY  |                            |                                      |  |       |
|               |           |       | SUBMITTED   |                            |                                      |  |       |
|               |           |       | STUDY   |                            |                                      |  |       |
| CA            | Grolleau, | 2001k | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.4/04      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in   |                            |                                      | accordance   |       |
|               |           |       | greenhouse tomato   |                            |                                      | with Article 59                                      |       |
|               |           |       | Raw Agricultural  |                            |                                      | of Regulation  |       |
|               |           |       | Commodity and   |                            |                                      | (EC) No.   |       |
|               |           |       | processed fractions   |                            |                                      | 1107/2009  |       |
|               |           |       | Spain - 2000  |                            |                                      |  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0087  |                            |                                      |  |       |
|               |           |       | European  |                            |                                      |  |       |
|               |           |       | Agricultural  |                            |                                      |  |       |
|               |           |       | Services, France  |                            |                                      |  |       |
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |

| Data<br>point | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------|-----------|-------|---|----------------------------|--------------------------------------|--|-------|
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | PREVIOUSLY  |                            |                                      |  |       |
|               |           |       | SUBMITTED   |                            |                                      |  |       |
|               |           |       | STUDY   |                            |                                      |  |       |
| CA            | Grolleau, | 20011 | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.3.4/05      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in   |                            |                                      | accordance   |       |
|               |           |       | greenhouse cherry   |                            |                                      | with Article 59                                      |       |
|               |           |       | tomato Raw  |                            |                                      | of Regulation  |       |
|               |           |       | Agricultural  |                            |                                      | (EC) No.   |       |
|               |           |       | Commodity Italy -   |                            |                                      | 1107/2009  |       |
|               |           |       | 2000  |                            |                                      |  |       |
|               |           |       | Company Report  |                            |                                      |  |       |
|               |           |       | No. NNR-0075  |                            |                                      |  |       |
|               |           |       | European  |                            |                                      |  |       |
|               |           |       | Agricultural  |                            |                                      |  |       |
|               |           |       | Services, France  |                            |                                      |  |       |
|               |           |       | GLP, Unpublished  |                            |                                      |  |       |
|               |           |       | Study submitted   |                            |                                      |  |       |
|               |           |       | to satisfy data   |                            |                                      |  |       |
|               |           |       | requirements  |                            |                                      |  |       |
|               |           |       | PREVIOUSLY  |                            |                                      |  |       |
|               |           |       | SUBMITTED   |                            |                                      |  |       |
|               |           |       | STUDY   |                            |                                      |  |       |
| CA            | Grolleau, | 2010  | Magnitude of the  | N                          | Υ                                    | Data protection                                      | SUM   |
| 6.5.3/03      | G.        |       | residue of  |                            |                                      | is claimed in  |       |
|               |           |       | pyriproxyfen in   |                            |                                      | accordance   |       |
|               |           |       | citrus Raw  |                            |                                      | with Article 59                                      |       |
|               |           |       | Agricultural  |                            |                                      | of Regulation  |       |

| Data<br>point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|---------------|-----------|------|---|----------------------------|--------------------------------------|---|-------|
|               |           |      | Commodity and   |                            |                                      | (EC) No.                                    |       |
|               |           |      | processed fractions.  |                            |                                      | 1107/2009                                   |       |
|               |           |      | Southern Europe -   |                            |                                      |   |       |
|               |           |      | 2010  |                            |                                      |   |       |
|               |           |      | Company Report  |                            |                                      |   |       |
|               |           |      | No. NNR-0226  |                            |                                      |   |       |
|               |           |      | Staphyt, France   |                            |                                      |   |       |
|               |           |      | GLP, Unpublished  |                            |                                      |   |       |
|               |           |      | Study submitted   |                            |                                      |   |       |
|               |           |      | to satisfy data   |                            |                                      |   |       |
|               |           |      | requirements  |                            |                                      |   |       |
|               |           |      | NEW STUDY   |                            |                                      |   |       |

# References for pyriproxyfen 100 g/L EC

Not applicable.

# **B.8 Environmental fate and behaviour**

# References for pyriproxyfen

| Data point       | Author(s)   | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|---|-------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.1.1/01 | Kouno, A.,<br>Yoshimura,<br>J., Nambu,<br>K., Yamada,<br>H. | 1990a | Aerobic soil metabolism of 14C-pyriproxyfen in sandy loam soil Sumitomo Chemical Co., Ltd. Report No. NNM-00-0016 GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED           | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.1.1/02 | Kouno, A.,<br>Yoshimura,<br>J., Nambu,<br>K., Yamada,<br>H. | 1990b | Aerobic soil metabolism of 14C-pyriproxyfen in sandy clay loam soil Sumitomo Chemical Co., Ltd. Report No. NNM-00-0017 Not GLP, Unpublished  Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |

| Data point       | Author(s)         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|-------------------|------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.1.1/03 | Fathulla,<br>R.N. | 1994 | Aerobic soil metabolism of 14C-pyriproxyfen Sumitomo Chemical Co., Ltd. Report No. NNM-41-0030 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.1.1/04 | Lewis, C.J.       | 2001 | (14C)-Pyriproxyfen: soil metabolism and degradation Sumitomo Chemical Co., Ltd. Report No. NNM-0077 Covance Laboratories Ltd GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED       | N                          | N                                    | NA   | SUM   |

| Data point        | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|-------------------|--------------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.1.1/05  | Freedlander,<br>S. | 2016a | [14C]Pyriproxyfen - aerobic soil metabolism in two soils Sumitomo Chemical Co., Ltd, report No.: NNM-0088 Smithers Viscient GLP, Unpublished Study performed to provide information on the degradation of the two isomers of pyriproxyfen in the environment NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.1.1/05a | Freedlander,<br>S. | 2018a | [14C]Pyriproxyfen- Aerobic soil metabolism in two soils Company Report No. 13048.6865 Smithers Viscient, Massachusetts, USA Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY   | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point        | Author(s)         | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|-------------------|-------------------|-------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.1.1/05b | Freedlander, S.   | 2018b | [14C]Pyriproxyfen- Aerobic soil metabolism in two soils Company Report No. NNM-0088-Supp Smithers Viscient, Massachusetts, USA Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY   | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.1.3/01  | Fathulla,<br>R.N. | 1995b | Artificial sunlight photodegradation of 14C-pyriproxyfen on soil Sumitomo Chemical Co., Ltd. Report No. NNM-0038 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED | N                          | N                                    | NA  | SUM   |

| Data point         | Author(s)   | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|---|-------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.2.1.1/01 | Kouno, A.,<br>Yoshimura,<br>J., Nambu,<br>K., Yamada,<br>H. | 1990a | Aerobic soil metabolism of 14C-pyriproxyfen in sandy loam soil Sumitomo Chemical Co., Ltd. Report No. NNM-00-0016 GLP, Unpublished  Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED  ⇒ CA, 7.1.1.1/01          | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.2.1.1/02 | Kouno, A.,<br>Yoshimura,<br>J., Nambu,<br>K., Yamada,<br>H. | 1990b | Aerobic soil metabolism of 14 C-pyriproxyfen in sandy clay loam soil Sumitomo Chemical Co., Ltd. Report No. NNM-00-0017 Not GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED  ⇒ CA, 7.1.1.1/02 | N                          | N                                    | NA   | SUM   |

| Data point         | Author(s)         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|-------------------|------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.2.1.1/03 | Fathulla,<br>R.N. | 1994 | Aerobic soil metabolism of 14C-pyriproxyfen Sumitomo Chemical Co., Ltd. Report No. NNM-41-0030 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED  ⇒ CA, 7.1.1.1/03 | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.2.1.1/06 | Lewis, C.J.       | 2001 | (14C)-Pyriproxyfen: soil metabolism and degradation Sumitomo Chemical Co., Ltd. Report No. NNM-0077 Covance Laboratories Ltd GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED  ⇒ CA, 7.1.1.1/04        | N                          | N                                    | NA   | SUM   |

| Data point          | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|---------------------|--------------|------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.1.1/10  | Ford, S.     | 2014 | Pyriproxyfen calculation of kinetic endpoints from laboratory aerobic soil degradation study data to derive modelling endpoints according to FOCUS guidelines Sumitomo Chemical Co., Ltd, report No.: NNM-0095 JSC International Limited Not GLP, Unpublished Study performed to generate kinetic endpoints based on current guidance NEW STUDY | N                          | N                                    | NA  | SUM   |
| CA<br>7.1.2.1.1/10a | Fletcher, T. | 2018 | Pyriproxyfen: Kinetic persistence assessment of laboratory soil degradation studies Company Report No. SCC/09/14-KIN8 Not GLP, Unpublished  Study submitted to meet data requirements  NEW STUDY  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point         | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|--------------------|--------------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.1.1/11 | Ford, S.           | 2016  | Pyriproxyfen: deriving a PYPAC soil formation fraction to include formation via soil photolysis Sumitomo Chemical Co., Ltd, report No.: NNM-0100 JSC International Limited Not GLP, Unpublished Study performed to generate kinetic endpoints based on current guidance NEW STUDY        | N                          | N                                    | NA  | SUM   |
| CA<br>7.1.2.1.1/12 | Freedlander,<br>S. | 2016a | [14C]Pyriproxyfen - aerobic soil metabolism in two soils Sumitomo Chemical Co., Ltd, report No.: NNM-0088 Smithers Viscient GLP, Unpublished Study performed to provide information on the degradation of the two isomers of pyriproxyfen in the environment NEW STUDY  ⇒ CA, 7.1.1.1/05 | N                          | Υ                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point          | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|---------------------|--------------------|-------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.1.2/01  | Freedlander,<br>S. | 2016b | [14C]4'-OH-Pyr - aerobic degradation in three soils Sumitomo Chemical Co., Ltd, report No.: NNM-0089 Smithers Viscient GLP, Unpublished Study performed to provide information on the degradation of 4'-OH-Pyr in the environment NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.2.1.2/01a | Freedlander,<br>S. | 2017a | [14C]4'-OH-Pyr — Aerobic degradation in three soils Company Report No. NNM-0089-Supp Smithers Viscient, Massachusetts, USA Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY   | Z                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point          | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|---------------------|--------------------|-------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.1.2/02  | Freedlander,<br>S. | 2016c | [14C]PYPAC - aerobic degradation in three soils Sumitomo Chemical Co., Ltd, report No.: NNM-0090 Smithers Viscient GLP, Unpublished Study performed to provide information on the degradation of PYPAC in the environment NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.2.1.2/02a | Freedlander,<br>S. | 2017b | [14C]PYPAC – Aerobic degradation in three soils Company Report No. NNM-0090-Supp Smithers Viscient, Massachusetts, USA Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY                                     | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point         | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|--------------------|-----------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.1.2/03 | Cooke, J. | 2016a | Pyriproxyfen: kinetic assessment of new laboratory soil degradation studies Sumitomo Chemical Co., Ltd, report No.: NNM-0099 JSC International Limited Not GLP, Unpublished  Study performed to generate kinetic endpoints based on current guidance NEW STUDY | N                          | N                                    | NA  | SUM   |
| CA<br>7.1.2.1.2/04 | Cooke. J. | 2018  | Pyriproxyfen: Assessment of pH dependency of soil degradation and adsorption Company Report No. SCC/09/14-KIN9 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point         | Author(s)    | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|--------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.2.2.1/01 | Pensyl, J.W. | 1995  | Field dissipation study with Knack™ insect growth regulator on bare ground part II: Mississippi. Sumitomo Chemical Co., Ltd. Report No. NNM-0048 Valent U.S.A. Corp. GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED                       | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.2.2.1/03 | Pensyl, J.W. | 1997a | Field dissipation study with Knack <sup>TM</sup> insect growth regulator on bare ground in a Washington apple orchard. Sumitomo Chemical Co., Ltd. Report No. NNM-0052 Valent U.S.A. Corp. GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |

| Data point         | Author(s)    | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|--------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.2.2.1/05 | Pensyl, J.W. | 1997b | Field dissipation study with Knack <sup>TM</sup> insect growth regulator on bare ground in a New York apple orchard. Sumitomo Chemical Co., Ltd. Report No. NNM-0053 Valent U.S.A. Corp. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.2.2.1/07 | Graham, R.   | 2016  | Pyriproxyfen: kinetic assessment of field dissipation studies Sumitomo Chemical Co., Ltd, report No.: NNM-0098 JSC International Limited Not GLP, Unpublished  Study performed to generate kinetic endpoints based on current guidance  NEW STUDY                                       | N                          | N                                    | NA   | SUM   |

| Data point         | Author(s)         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|--------------------|-------------------|------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.2.2.1/08 | Cooke. J.         | 2018 | Pyriproxyfen: Assessment of US field soil dissipation studies for relevance to the EU Company Report No. SCC/09/14-KIN7 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.3.1.1/01 | Fathulla,<br>R.N. | 1991 | The adsorption and desorption of [Phe-  14C] pyriproxyfen on representative agricultural soils and sediment Sumitomo Chemical Co., Ltd. Report No. NNM-11-0019 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED | N                          | N                                    | NA  | SUM   |

| Data point         | Author(s)         | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|-------------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.3.1.2/01 | Fathulla,<br>R.N. | 1995c | Adsorption and desorption of 14C-4'-OH-Pyr on representative agricultural soils Sumitomo Chemical Co., Ltd. Report No. NNM-41-0032 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED          | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.3.1.2/02 | Fathulla,<br>R.N. | 1995d | Adsorption and desorption of 14C-PYPAC on representative agricultural soils and sediment Sumitomo Chemical Co., Ltd. Report No. NNM-51-0034 Hazleton Laboratories America, Inc. GLP, Unpublished Study required to support the risk assessment endpoints  PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |

| Data point         | Author(s)                    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|--------------------|------------------------------|------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.1.3.1.2/04 | Lewis, C. J.,<br>Wallage, T. | 2016 | [14C]DPH-Pyr: adsorption/desorption in three soils Sumitomo Chemical Co., Ltd, report No.: NNM-0091 Smithers Viscient (ESG) Ltd GLP, Unpublished Study performed to provide information on the sorption DPH-Pyr in the environment NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.1.3.1.2/05 | Cooke. J.                    | 2018 | Pyriproxyfen: Assessment of pH dependency of soil degradation and adsorption Company Report No. SCC/09/14-KIN9 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY  ⇒ CA, 7.1.2.1.2/04                                  | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point         | Author(s)         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------------|-------------------|------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>7.1.4.1.1/01 | Nambu, K.         | 1988 | Leaching behavior of pyriproxyfen in soil Sumitomo Chemical Co., Ltd. Report No. NNM-80-0003 Not GLP, Unpublished  Study required to fulfil a data requirement  PREVIOUSLY SUBMITTED  | N                          | N                                    | NA   | SUM   |
| CA<br>7.1.4.1.2/01 | Fathulla,<br>R.N. | 1993 | Column leaching characteristics of aged <sup>14</sup> C-pyriproxyfen on soil Sumitomo Chemical Co., Ltd. Report No. NNM-31-0026 Hazleton Laboratories America, Inc. GLP, Unpublished Study provided at the request of the RMS  PREVIOUSLY SUBMITTED | N .                        | N .                                  | NA   | MU    |

| Data point       | Author(s)                       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|---------------------------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>7.2.1.1/01 | Katagi, T.,<br>Takahashi,<br>N. | 1989  | Hydrolysis of S-31183 in buffered aqueous solutions at 50°C Sumitomo Chemical Co., Ltd. Report No. NNM-90-0013 GLP, Unpublished Study required to fulfil a data requirement PREVIOUSLY SUBMITTED  | Z                          | N                                    | NA   | SUM   |
| CA<br>7.2.1.2/01 | Fathulla,<br>R.N.               | 1995e | Artificial sunlight photodegradation of pyriproxyfen in aqueous media at pH 7 Sumitomo Chemical Co., Ltd. Report No. NNM-51-0037 Hazleton Laboratories America, Inc. GLP, Unpublished Study provided at the request of the RMS PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |

| Data point       | Author(s)        | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|------------------|------------------|------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.2.1.2/02 | Takahashi,<br>N. | 1988 | Quantum yield of direct phototransformation of pyriproxyfen Sumitomo Chemical Co., Ltd. Report No. NNP-0077 Not GLP, Unpublished Study provided at the request of the RMS PREVIOUSLY SUBMITTED   | N                          | N                                    | NA  | SUM   |
| CA<br>7.2.1.2/03 | Ponte, M.        | 2015 | Determination of the quantum yield of [14C]pyriproxyfen in pH 7 buffer solution under artificial sunlight Sumitomo Chemical Co., Ltd, report No.: NNM-0087 PTRL West GLP, Unpublished Study performed to determine the quantum yield of pyriproxyfen under GLP NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point       | Author(s)                               | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|------------------|---|------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.2.2.1/01 | Itoh, K.,<br>Tanoue, A.,<br>Matsuda, T. | 1988 | Biotic degradation of 1-(4- phenoxyphenoxy)-2- (2-pylidyloxy)propane (code name: S- 31183) by activated sludge Sumitomo Chemical Co., Ltd. Report No. NNM-0064 GLP, Unpublished Study required to fulfil a data requirement PREVIOUSLY SUBMITTED                   | N                          | N                                    | NA  | SUM   |
| CA<br>7.2.2.2/01 | Adam, D.                                | 2015 | [14C] Pyriproxyfen – aerobic mineralisation in surface water – simulation biodegradation test Sumitomo Chemical Co., Ltd, report No.: NNM-0086 Innovative Environmental Services (IES) Ltd GLP, Unpublished Study performed to meet new data requirement NEW STUDY | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point        | Author(s)   | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                      | Owner |
|-------------------|-------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>7.2.2.2/01a | Adam, D.    | 2017  | Statement on procedural recoveries of [14C] pyriproxyfen in aerobic mineralisation in surface watersimulation biodegradation test Company report No. 20150070 Innovative Environmental Services (IES) Ltd, Switzerland Not GLP, Unpublished Study submitted to meet data requirements  NEW STUDY | Z                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA<br>7.2.2.3/01  | Lewis, C.J. | 2000a | (14C)-Pyriproxyfen: Degradation and retention in watersediment systems Sumitomo Chemical Co., Ltd. Report No. NNM-0076 Covance Laboratories Ltd GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED  | N                          | N                                    | NA  | SUM   |

| Data point       | Author(s)   | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|-------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA<br>7.2.2.3/02 | Lewis, C.J. | 2000b | (14C)-4'-OH- Pyriproxyfen and (14C)-PYPAC: Degradation and retention in water- sediment systems Sumitomo Chemical Co., Ltd. Report No. NNM-0075 Covance Laboratories Ltd GLP, Unpublished Study required to support the risk assessment endpoints PREVIOUSLY SUBMITTED | N                          | N                                    | NA   | SUM   |
| CA<br>7.2.2.4/01 | Lewis, C.J. | 2003  | [14C]Pyriproxyfen: Degradation in a water-sediment system in the light. Sumitomo Chemical Co., Ltd., Unpublished report No.: NNM-0081 Covance Laboratories Ltd GLP, Unpublished Study provided at the request of the RMS PREVIOUSLY SUBMITTED                          |                            |                                      |  |       |

| Data point       | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|-----------|-------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>7.2.2.3/03 | Cooke, J. | 2016b | Pyriproxyfen: kinetic assessment of water/sediment studies Sumitomo Chemical Co., Ltd, report No.: NNM-0096 JSC International Limited Not GLP, Unpublished Study performed to generate kinetic endpoints based on current guidance NEW STUDY        | Z                          | N                                    | NA   | SUM   |
| CA<br>7.2.2.3/04 | Cooke, J. | 2016c | 4'-OH-Pyr and PYPAC: kinetic assessment of water/sediment studies Sumitomo Chemical Co., Ltd, report No.: NNM-0097 JSC International Limited Not GLP, Unpublished Study performed to generate kinetic endpoints based on current guidance NEW STUDY | N                          | N                                    | NA   | SUM   |

| Data point | Author(s)                                   | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not Justification  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------|---|------|--|----------------------------|--------------------------------------|--|-------|
| CA 7.3/04  | Yoshida, M.,<br>Kodaka, R.,<br>Fujisawa, T. | 2013 | Stability of pyriproxyfen in air (calculation by Atkinson's method) Sumitomo Chemical Co., Ltd, report No.: NNP-0120 Not GLP, Unpublished Study performed to meet data requirement NEW STUDY | N                          | N                                    | NA   | SUM   |

## References for pyriproxyfen 100 g/L EC

| Data<br>point | Author(s) | Year       | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection<br>is<br>claimed | Owner |
|---------------|-----------|------------|---|----------------------------|--------------------------------------|---|-------|
| CP            | Cooke, J. | 2016a (+   | A modelling   | N                          | N                                    | NA  | SUM   |
| 9.2.4.1/04    |           | amendment) | assessment  |                            |                                      |   |       |
|               |           |            | of  |                            |                                      |   |       |
|               |           |            | pyriproxyfen  |                            |                                      |   |       |
|               |           |            | and its   |                            |                                      |   |       |
|               |           |            | metabolites in  |                            |                                      |   |       |
|               |           |            | groundwater   |                            |                                      |   |       |
|               |           |            | Sumitomo  |                            |                                      |   |       |
|               |           |            | Chemical Co.,   |                            |                                      |   |       |
|               |           |            | Ltd report  |                            |                                      |   |       |

|                   |                 |       | No.: NNM-  |          |   |    |     |
|-------------------|-----------------|-------|--|----------|---|----|-----|
|                   |                 |       | 0103   |          |   |    |     |
|                   |                 |       | JSC  |          |   |    |     |
|                   |                 |       | International  |          |   |    |     |
|                   |                 |       | Limited,   |          |   |    |     |
|                   |                 |       | report No.:  |          |   |    |     |
|                   |                 |       | SCC/09/14-   |          |   |    |     |
|                   |                 |       | GW2  |          |   |    |     |
|                   |                 |       | Not GLP,   |          |   |    |     |
|                   |                 |       | Unpublished  |          |   |    |     |
|                   |                 |       | Study  |          |   |    |     |
|                   |                 |       | required to  |          |   |    |     |
|                   |                 |       | address new  |          |   |    |     |
|                   |                 |       | data and   |          |   |    |     |
|                   |                 |       |  |          |   |    |     |
|                   |                 |       | current  |          |   |    |     |
|                   |                 |       | guidance   |          |   |    |     |
|                   |                 |       | NEW STUDY  |          |   |    |     |
| CP<br>9.2.4.1/04a | Fletcher,<br>T. | 2018  | A Modelling Assessment of Pyriproxyfen and its Metabolites in Groundwater Company report No. SCC/09/14- GW3 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY | N        | N | NA | SUM |
| СР                | Cooke, J.       | 2016b | A modelling  | N        | N | NA | SUM |
| 9.2.5/04          |                 |       | assessment   |          |   |    |     |
|                   |                 |       | of   |          |   |    |     |
|                   |                 |       | pyriproxyfen   |          |   |    |     |
|                   |                 |       | and its  |          |   |    |     |
|                   |                 |       |  | <u> </u> |   |    |     |

|                 |                 |      | metabolites in  |   |   |    |     |
|-----------------|-----------------|------|---|---|---|----|-----|
|                 |                 |      | surface water   |   |   |    |     |
|                 |                 |      | Sumitomo  |   |   |    |     |
|                 |                 |      | Chemical Co.,   |   |   |    |     |
|                 |                 |      | Ltd report  |   |   |    |     |
|                 |                 |      | No.: NNM-   |   |   |    |     |
|                 |                 |      | 0101  |   |   |    |     |
|                 |                 |      | JSC   |   |   |    |     |
|                 |                 |      | International   |   |   |    |     |
|                 |                 |      | Limited,  |   |   |    |     |
|                 |                 |      | report No.:   |   |   |    |     |
|                 |                 |      | SCC/09/14-  |   |   |    |     |
|                 |                 |      | SW1   |   |   |    |     |
|                 |                 |      | Not GLP,  |   |   |    |     |
|                 |                 |      | Unpublished   |   |   |    |     |
|                 |                 |      | Study   |   |   |    |     |
|                 |                 |      | required to   |   |   |    |     |
|                 |                 |      | address new   |   |   |    |     |
|                 |                 |      | data and  |   |   |    |     |
|                 |                 |      | current   |   |   |    |     |
|                 |                 |      | guidance  |   |   |    |     |
|                 |                 |      | NEW STUDY   |   |   |    |     |
| CP<br>9.2.5/04a | Fletcher,<br>T. | 2017 | A modelling assessment of pyriproxyfen and its metabolites in surface water Company report No. SCC/09/14-SW3 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY | N | N | NA | SUM |
|                 |                 |      | NEW STUDY   |   |   |    |     |

## **B.9 Ecotoxicology**

## References for pyriproxyfen

| Data point | Author(s) | Year | Title                      | Vertebrate | Data       | Justification if | Owner |
|------------|-----------|------|----------------------------|------------|------------|------------------|-------|
|            |           |      | Company Report             | study      | protection | data             |       |
|            |           |      | No.                        | Y/N        | claimed    | protection is    |       |
|            |           |      | Source (where              |            | Y/N        | claimed          |       |
|            |           |      | different from             |            |            |                  |       |
|            |           |      | company)                   |            |            |                  |       |
|            |           |      | GLP or GEP status          |            |            |                  |       |
|            |           |      | Published or not           |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
| CA         |           | 1989 | The avian single-          | Υ          | N          | NA               | SUM   |
| 8.1.1.1/01 |           |      | dose oral LD <sub>50</sub> |            |            |                  |       |
|            |           |      | study of S-31183 to        |            |            |                  |       |
|            |           |      | the mallard duck           |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      | GLP, Unpublished           |            |            |                  |       |
| CA         |           | 1989 | The avian single-          | Υ          | N          | NA               | SUM   |
| 8.1.1.1/02 |           |      | dose oral LD50             |            |            |                  |       |
|            |           |      | study of S-31183 to        |            |            |                  |       |
|            |           |      | the bobwhite quail         |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      |                            |            |            |                  |       |
|            |           |      | CLD Handblahad             |            |            |                  |       |
|            |           |      | GLP, Unpublished           |            |            |                  |       |

| Data point       | Author(s) | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|------------------|-----------|-------|---|----------------------------|--------------------------------------|---|-------|
| CA<br>8.1.1.2/01 |           | 1989a | A dietary LC <sub>50</sub> study of S-31183 to the mallard duck.                                  | Y                          | N                                    | NA  | SUM   |
| CA<br>8.1.1.2/02 |           | 1989b | A dietary LC <sub>50</sub> study of S-31183 to the bobwhite quail.  GLP, Unpublished              | Υ                          | N                                    | NA  | SUM   |
| CA<br>8.1.1.3/01 |           | 1994a | Sumilary T.G.: A reproduction study with the mallard duck  GLP, Unpublished                       | Y                          | N                                    | NA  | SUM   |

| Data point | Author(s)      | Year  | Title                      | Vertebrate | Data       | Justification if | Owner |
|------------|----------------|-------|----------------------------|------------|------------|------------------|-------|
| Data point | / tall 101 (0) |       | Company Report             | study      | protection | data             |       |
|            |                |       | No.                        | Y/N        | claimed    | protection is    |       |
|            |                |       | Source (where              | 1714       | Y/N        | claimed          |       |
|            |                |       | different from             |            | 1/1        | Clairrica        |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       | company) GLP or GEP status |            |            |                  |       |
|            |                |       | Published or not           |            |            |                  |       |
|            |                |       | Published of flot          |            |            |                  |       |
| CA         |                | 1994b | Sumilarv T.G.: A           | Υ          | N          | NA               | SUM   |
| 8.1.1.3/02 |                |       | reproduction study         |            |            |                  |       |
|            |                |       | with the bobwhite          |            |            |                  |       |
|            |                |       | quail Company              |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       | GLP, Unpublished           |            |            |                  |       |
| CA.        |                | 1987a | Acute oral toxicity of     | Υ          | N          | NA               | SUM   |
| 8.1.2.1/01 |                |       | S-31183 in rats            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       | GLP, Unpublished           |            |            |                  |       |
| CA.        |                | 1987b | Acute oral toxicity of     | Υ          | N          | NA               | SUM   |
| 8.1.2.1/02 |                |       | S-31183 in rats            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       |                            |            |            |                  |       |
|            |                |       | GLP, Unpublished           |            |            |                  |       |

| Data point | Author(s) | Year | Title                  | Vertebrate | Data       | Justification if | Owner |
|------------|-----------|------|------------------------|------------|------------|------------------|-------|
|            |           |      | Company Report         | study      | protection | data             |       |
|            |           |      | No.                    | Y/N        | claimed    | protection is    |       |
|            |           |      | Source (where          |            | Y/N        | claimed          |       |
|            |           |      | different from         |            |            |                  |       |
|            |           |      | company)               |            |            |                  |       |
|            |           |      | GLP or GEP status      |            |            |                  |       |
|            |           |      | Published or not       |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
| CA.        |           | 1986 | Acute oral toxicity of | Υ          | N          | NA               | SUM   |
| 8.1.2.1/03 |           |      | S-31183 in dogs        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      | GLP, Unpublished       |            |            |                  |       |
| CA.        |           | 1991 | A dietary 2-           | Υ          | N          | NA               | SUM   |
| 8.1.2.2/01 |           |      | generation (1 litter)  |            |            |                  |       |
|            |           |      | reproduction study     |            |            |                  |       |
|            |           |      | of S-31183 in the      |            |            |                  |       |
|            |           |      | rat                    |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      |                        |            |            |                  |       |
|            |           |      | GLP, Unpublished       |            |            |                  |       |

| Data point  | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed   | Owner |
|-------------|-----------|------|--|----------------------------|--------------------------------------|---|-------|
| CA 8.1.4/01 |           | 2012 | Pyriproxyfen – Amphibian Metamorphosis Assay with African Clawed Frog (Xenopus laevis) Following OPPTS Test Guideline 890.1100 and OECD Test Guideline 231           | Y                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009  | SUM   |
| CA 8.1.5    | Anon      | 2012 | A Weight of evidence of the EDSP Tier 1 studies of pyriproxyfen T.G. Company Report No. NNT-0213 Environmental Health Science Laboratory, Japan Not GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |

| Data point  | Author(s) | Year  | Title                         | Vertebrate | Data       | Justification if | Owner |
|-------------|-----------|-------|-------------------------------|------------|------------|------------------|-------|
|             |           |       | Company Report                | study      | protection | data             |       |
|             |           |       | No.                           | Y/N        | claimed    | protection is    |       |
|             |           |       | Source (where                 |            | Y/N        | claimed          |       |
|             |           |       | different from                |            |            |                  |       |
|             |           |       | company)                      |            |            |                  |       |
|             |           |       | GLP or GEP status             |            |            |                  |       |
|             |           |       | Published or not              |            |            |                  |       |
|             |           |       |                               |            |            |                  |       |
| CA 8.2.1/02 |           | 1989A | Acute flow-through            | Υ          | N          | NA               | SUM   |
|             |           |       | toxicity of Sumilarv          |            |            |                  |       |
|             |           |       | to rainbow trout              |            |            |                  |       |
|             |           |       | (Salmo gairdneri).            |            |            |                  |       |
|             |           |       |                               |            |            |                  |       |
|             |           |       |                               |            |            |                  |       |
|             |           |       |                               |            |            |                  |       |
|             |           |       |                               |            |            |                  |       |
| CA 8.2.1/02 |           | 1989b | Acute flow-through            | Υ          | N          | NA               | SUM   |
|             |           |       | toxicity of Sumilarv          |            |            |                  |       |
|             |           |       | to bluegill ( <i>Lepomi</i> s |            |            |                  |       |
|             |           |       | macrochirus)                  |            |            |                  |       |
|             |           |       | Company Report                |            |            |                  |       |
|             |           |       | No.: NNW-91-0034              |            |            |                  |       |
|             |           |       | Analytical Bio-               |            |            |                  |       |
|             |           |       | Chemistry                     |            |            |                  |       |
|             |           |       | Laboratories, Inc.,           |            |            |                  |       |
|             |           |       | USA                           |            |            |                  |       |
|             |           |       | GLP, Unpublished              |            |            |                  |       |

| Data point  | Author(s) | Year  | Title                        | Vertebrate | Data       | Justification if | Owner |
|-------------|-----------|-------|------------------------------|------------|------------|------------------|-------|
|             |           |       | Company Report               | study      | protection | data             |       |
|             |           |       | No.                          | Y/N        | claimed    | protection is    |       |
|             |           |       | Source (where                |            | Y/N        | claimed          |       |
|             |           |       | different from               |            |            |                  |       |
|             |           |       | company)                     |            |            |                  |       |
|             |           |       | GLP or GEP status            |            |            |                  |       |
|             |           |       | Published or not             |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
| CA 8.2.1/03 |           | 2000a | PYPAC - Acute                | Υ          | N          | NA               | SUM   |
|             |           |       | toxicity to rainbow          |            |            |                  |       |
|             |           |       | trout                        |            |            |                  |       |
|             |           |       | (Oncorhynchus                |            |            |                  |       |
|             |           |       | <i>mykiss</i> ) under static |            |            |                  |       |
|             |           |       | conditions                   |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       | GLP, Unpublished             |            |            |                  |       |
| CA 8.2.1/04 |           | 2000b | 4'-OH-Pyriproxyfen           | Υ          | N          | NA               | SUM   |
|             |           |       | - Acute toxicity to          |            |            |                  |       |
|             |           |       | rainbow trout                |            |            |                  |       |
|             |           |       | (Oncorhynchus                |            |            |                  |       |
|             |           |       | mykiss) under flow-          |            |            |                  |       |
|             |           |       | through conditions           |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       | GLP, Unpublished             |            |            |                  |       |

| Data point  | Author(s) | Year | Title                | Vertebrate | Data       | Justification if | Owner |
|-------------|-----------|------|----------------------|------------|------------|------------------|-------|
|             |           |      | Company Report       | study      | protection | data             |       |
|             |           |      | No.                  | Y/N        | claimed    | protection is    |       |
|             |           |      | Source (where        |            | Y/N        | claimed          |       |
|             |           |      | different from       |            |            |                  |       |
|             |           |      | company)             |            |            |                  |       |
|             |           |      | GLP or GEP status    |            |            |                  |       |
|             |           |      | Published or not     |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
| CA 8.2.1/05 |           | 1991 | Acute flow-through   | Υ          | N          | NA               | SUM   |
|             |           |      | toxicity of Sumilarv |            |            |                  |       |
|             |           |      | T.G. to the          |            |            |                  |       |
|             |           |      | Sheepshead           |            |            |                  |       |
|             |           |      | minnow (Cyprinidon   |            |            |                  |       |
|             |           |      | variegatus)          |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      | GLP, Unpublished     |            |            |                  |       |

| Data point  | Author(s) | Year  | Title                        | Vertebrate | Data       | Justification if | Owner |
|-------------|-----------|-------|------------------------------|------------|------------|------------------|-------|
| ·           | ( )       |       | Company Report               | study      | protection | data             |       |
|             |           |       | No.                          | Y/N        | claimed    | protection is    |       |
|             |           |       | Source (where                |            | Y/N        | claimed          |       |
|             |           |       | different from               |            |            |                  |       |
|             |           |       | company)                     |            |            |                  |       |
|             |           |       | GLP or GEP status            |            |            |                  |       |
|             |           |       | Published or not             |            |            |                  |       |
|             |           |       | T donoriod of flot           |            |            |                  |       |
| CA 8.2.1/06 |           | 2009a | DPH-Pyr                      | Υ          | Υ          | Data             | SUM   |
|             |           |       | (Metabolite of               |            |            | protection is    |       |
|             |           |       | Pyriproxyfen): Acute         |            |            | claimed in       |       |
|             |           |       | toxicity to rainbow          |            |            | accordance       |       |
|             |           |       | trout                        |            |            | with Article     |       |
|             |           |       | (Oncorhynchus                |            |            | 59 of            |       |
|             |           |       | <i>mykiss</i> ) under static |            |            | Regulation       |       |
|             |           |       | acute conditions             |            |            | (EC) No          |       |
|             |           |       |                              |            |            | 1107/2009        |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       |                              |            |            |                  |       |
|             |           |       | GLP, Unpublished             |            |            |                  |       |
| CA 8.2.1/07 |           | 2015a | Acute toxicity study         | Υ          | Υ          | Data             | SUM   |
|             |           |       | of PYPA with                 |            |            | protection is    |       |
|             |           |       | Rainbow trout                |            |            | claimed in       |       |
|             |           |       |                              |            |            | accordance       |       |
|             |           |       |                              |            |            | with Article     |       |
|             |           |       |                              |            |            | 59 of            |       |
|             |           |       |                              |            |            | Regulation       |       |
|             |           |       |                              |            |            | (EC) No          |       |
|             |           |       | GLP, Unpublished             |            |            | 1107/2009        |       |

| Data point  | Author(s) | Year | Title                | Vertebrate | Data       | Justification if | Owner |
|-------------|-----------|------|----------------------|------------|------------|------------------|-------|
| ·           | ` ,       |      | Company Report       | study      | protection | data             |       |
|             |           |      | No.                  | Y/N        | claimed    | protection is    |       |
|             |           |      | Source (where        |            | Y/N        | claimed          |       |
|             |           |      | different from       |            |            |                  |       |
|             |           |      | company)             |            |            |                  |       |
|             |           |      | GLP or GEP status    |            |            |                  |       |
|             |           |      | Published or not     |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
| CA 8.2.2/01 |           | 1991 | 21-Day Flow-         | Υ          | N          | NA               | SUM   |
|             |           |      | Through Toxicity of  |            |            |                  |       |
|             |           |      | Pyriproxyfen to      |            |            |                  |       |
|             |           |      | Rainbow Trout        |            |            |                  |       |
|             |           |      | (Oncorhynchus        |            |            |                  |       |
|             |           |      | mykiss)              |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      | GLP, Unpublished     |            |            |                  |       |
| CA 8.2.2/02 |           | 1991 | Early life-stage     | Υ          | N          | NA               | SUM   |
|             |           |      | toxicity of Sumilarv |            |            |                  |       |
|             |           |      | technical to the     |            |            |                  |       |
|             |           |      | rainbow trout        |            |            |                  |       |
|             |           |      | (Oncorhynchus        |            |            |                  |       |
|             |           |      | mykiss) under flow-  |            |            |                  |       |
|             |           |      | through conditions   |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      |                      |            |            |                  |       |
|             |           |      | GLP, Unpublished     |            |            |                  |       |

| Data point    | Author(s)     | Year  | Title                | Vertebrate | Data       | Justification if | Owner |
|---------------|---------------|-------|----------------------|------------|------------|------------------|-------|
| 2 414 7 5 111 | , 13.11.01(0) | . 50. | Company Report       | study      | protection | data             |       |
|               |               |       | No.                  | Y/N        | claimed    | protection is    |       |
|               |               |       | Source (where        | 1,11       | Y/N        | claimed          |       |
|               |               |       | different from       |            | 1/13       | oldii110d        |       |
|               |               |       | company)             |            |            |                  |       |
|               |               |       | GLP or GEP status    |            |            |                  |       |
|               |               |       | Published or not     |            |            |                  |       |
|               |               |       | Fublished of flot    |            |            |                  |       |
| CA 8.2.2/03   |               | 2016  | Derivation of        | Υ          | Υ          | NA               | SUM   |
|               |               |       | endpoints (EC10      |            |            |                  |       |
|               |               |       | and EC20 values)     |            |            |                  |       |
|               |               |       | for fish early life- |            |            |                  |       |
|               |               |       | stage toxicity study |            |            |                  |       |
|               |               |       | with pyriproxyfen.   |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
| CA            |               | 2007  | Pyriproxyfen: Full   | Υ          | Υ          | Data             | SUM   |
| 8.2.2.1/01    |               |       | Life Cycle Toxicity  |            |            | protection is    |       |
|               |               |       | Test with Medaka     |            |            | claimed in       |       |
|               |               |       | (Oryzias tatipes)    |            |            | accordance       |       |
|               |               |       | under Flow-Through   |            |            | with Article     |       |
|               |               |       | Conditions           |            |            | 59 of            |       |
|               |               |       |                      |            |            | Regulation       |       |
|               |               |       |                      |            |            | (EC) No          |       |
|               |               |       |                      |            |            | 1107/2009        |       |
|               |               |       |                      |            |            | 1.101/2000       |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |
|               |               |       | GLP, Unpublished     |            |            |                  |       |
|               |               |       |                      |            |            |                  |       |

| Data point | Author(s) | Year | Title                           | Vertebrate | Data       | Justification if | Owner |
|------------|-----------|------|---------------------------------|------------|------------|------------------|-------|
|            |           |      | Company Report                  | study      | protection | data             |       |
|            |           |      | No.                             | Y/N        | claimed    | protection is    |       |
|            |           |      | Source (where                   |            | Y/N        | claimed          |       |
|            |           |      | different from                  |            |            |                  |       |
|            |           |      | company)                        |            |            |                  |       |
|            |           |      | GLP or GEP status               |            |            |                  |       |
|            |           |      | Published or not                |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
| CA         |           | 1993 | Uptake, depuration              | Υ          | N          | NA               | SUM   |
| 8.2.7/01a  |           |      | and                             |            |            |                  |       |
|            |           |      | bioconcentration of             |            |            |                  |       |
|            |           |      | <sup>14</sup> C-pyriproxyfen by |            |            |                  |       |
|            |           |      | bluegill sunfish                |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      | GLP, Unpublished                |            |            |                  |       |
| CA         |           | 1994 | Characterization of             | Υ          | N          | NA               | SUM   |
| 8.2.7/01b  |           |      | <sup>14</sup> C-residues in     |            |            |                  |       |
|            |           |      | bluegill sunfish                |            |            |                  |       |
|            |           |      | treated with 14C-               |            |            |                  |       |
|            |           |      | pyriproxyfen                    |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      |                                 |            |            |                  |       |
|            |           |      | CLD Handblahad                  |            |            |                  |       |
|            |           |      | GLP, Unpublished                |            |            |                  |       |

| Data point      | Author(s)  | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|-----------------|--|-------|--|----------------------------|--------------------------------------|---|-------|
| CA<br>8.2.7/01c | Fujisawa, T. Nambu, K. Nishioka, K. Takimoto, Y. | 1999  | Calculation of <sup>14</sup> C-pyriproxyfen clearance time (CT <sub>90</sub> , CT <sub>95</sub> ) in bluegill sunfish Company Report No.: NNM-0061 Environmental Health Science Laboratory, Japan Not GLP, Unpublished | N                          | N                                    | NA  | SUM   |
| CA<br>8.2.7/02a |  | 1993a | Bioaccumulation of 1-(4- Phenoxyphenoxy)- 2-(2- pyridyloxy)propane (S-31183) in Fish   | Υ                          | N                                    | NA  | SUM   |

| Data point | Author(s) | Year  | Title              | Vertebrate | Data       | Justification if | Owner |
|------------|-----------|-------|--------------------|------------|------------|------------------|-------|
|            |           |       | Company Report     | study      | protection | data             |       |
|            |           |       | No.                | Y/N        | claimed    | protection is    |       |
|            |           |       | Source (where      |            | Y/N        | claimed          |       |
|            |           |       | different from     |            |            |                  |       |
|            |           |       | company)           |            |            |                  |       |
|            |           |       | GLP or GEP status  |            |            |                  |       |
|            |           |       | Published or not   |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
| CA         |           | 1993b | Excretion Study of | Υ          | N          | NA               | SUM   |
| 8.2.7/02b  |           |       | 1-(4-              |            |            |                  |       |
|            |           |       | Phenoxyphenoxy)-   |            |            |                  |       |
|            |           |       | 2-(2-              |            |            |                  |       |
|            |           |       | pyridyloxy)propane |            |            |                  |       |
|            |           |       | (S-31183)          |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       | Ī                  |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       |                    |            |            |                  |       |
|            |           |       | GLP, Unpublished   |            |            |                  |       |

| Data point  | Author(s)   | Year | Title                | Vertebrate | Data       | Justification if | Owner |
|-------------|-------------|------|----------------------|------------|------------|------------------|-------|
| Data point  | Author(s)   | real |                      |            |            |                  | Owner |
|             |             |      | Company Report       | study      | protection | data             |       |
|             |             |      | No.                  | Y/N        | claimed    | protection is    |       |
|             |             |      | Source (where        |            | Y/N        | claimed          |       |
|             |             |      | different from       |            |            |                  |       |
|             |             |      | company)             |            |            |                  |       |
|             |             |      | GLP or GEP status    |            |            |                  |       |
|             |             |      | Published or not     |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
| CA          |             | 2012 | Pyriproxyfen –       | Υ          | Υ          | Data             | SUM   |
| 8.2.2.1/02  |             |      | Short-Term           |            |            | protection is    |       |
|             |             |      | Reproduction Assay   |            |            | claimed in       |       |
|             |             |      | with Fathead         |            |            | accordance       |       |
|             |             |      | Minnow               |            |            | with Article     |       |
|             |             |      | (Pimephales          |            |            | 59 of            |       |
|             |             |      | promelas) Following  |            |            | Regulation       |       |
|             |             |      | OPPTS Guideline      |            |            | (EC) No          |       |
|             |             |      | 890.1350 and         |            |            | 1107/2009        |       |
|             |             |      | OECD Guideline       |            |            |                  |       |
|             |             |      | 229                  |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
|             |             |      | GLP, Unpublished     |            |            |                  |       |
| CA 8.2.3/01 | Burgess, D. | 1989 | Acute flow-through   | N          | N          | NA               | SUM   |
| 07(0.2.0/01 | Daigeos, D. | 1505 | toxicity of Sumilarv | 1          | '          | 107              | CON   |
|             |             |      | to Daphnia magna     |            |            |                  |       |
|             |             |      | Company Report       |            |            |                  |       |
|             |             |      | No.: NNW-91-0036     |            |            |                  |       |
|             |             |      |                      |            |            |                  |       |
|             |             |      | Analytical Bio-      |            |            |                  |       |
|             |             |      | Chemistry            |            |            |                  |       |
|             |             |      | Laboratories, Inc.,  |            |            |                  |       |
|             |             |      | USA                  |            |            |                  |       |
|             |             |      | GLP, Unpublished     |            |            |                  |       |

| Data point  | Author(s)  | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|-------------|------------|-------|--|----------------------------|--------------------------------------|---|-------|
| CA 8.2.3/02 | Putt, A.E. | 2000c | PYPAC - Acute toxicity to daphnids (Daphnia magna) under static conditions Company Report No.: NNW-0140 Springborn Laboratories, Inc., USA GLP, Unpublished                              | N                          | N                                    | NA  | SUM   |
| CA 8.2.3/03 | Putt, A.E. | 2000d | 4'-OH-Pyriproxyfen - Acute toxicity to daphnids ( <i>Daphnia magna</i> ) under flow- through conditions Company Report No.: NNW-0144 Springborn Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA  | SUM   |

| Data point  | Author(s)   | Year  | Title                | Vertebrate | Data       | Justification if | Owner |
|-------------|-------------|-------|----------------------|------------|------------|------------------|-------|
|             |             |       | Company Report       | study      | protection | data             |       |
|             |             |       | No.                  | Y/N        | claimed    | protection is    |       |
|             |             |       | Source (where        |            | Y/N        | claimed          |       |
|             |             |       | different from       |            |            |                  |       |
|             |             |       | company)             |            |            |                  |       |
|             |             |       | GLP or GEP status    |            |            |                  |       |
|             |             |       | Published or not     |            |            |                  |       |
|             |             |       |                      |            |            |                  |       |
| CA 8.2.3/04 | Hamitou, M. | 2009b | DPH-Pyr              | N          | Υ          | Data             | SUM   |
|             |             |       | (Metabolite of       |            |            | protection is    |       |
|             |             |       | Pyriproxyfen): Acute |            |            | claimed in       |       |
|             |             |       | toxicity to water    |            |            | accordance       |       |
|             |             |       | fleas (Daphnia       |            |            | with Article     |       |
|             |             |       | magna) under static  |            |            | 59 of            |       |
|             |             |       | acute conditions     |            |            | Regulation       |       |
|             |             |       | Company Report       |            |            | (EC) No          |       |
|             |             |       | No.: NNW-0191        |            |            | 1107/2009        |       |
|             |             |       | Springborn           |            |            |                  |       |
|             |             |       | Smithers             |            |            |                  |       |
|             |             |       | Laboratories         |            |            |                  |       |
|             |             |       | (Europe),            |            |            |                  |       |
|             |             |       | Switzerland          |            |            |                  |       |
|             |             |       | GLP, Unpublished     |            |            |                  |       |
| CA 8.2.3/05 | Hara, T.    | 2015  | Acute                | N          | Υ          | Data             | SUM   |
|             |             |       | immobilization study |            |            | protection is    |       |
|             |             |       | of PYPA with         |            |            | claimed in       |       |
|             |             |       | Daphnia magna        |            |            | accordance       |       |
|             |             |       | Company Report       |            |            | with Article     |       |
|             |             |       | No.: NNW-0221        |            |            | 59 of            |       |
|             |             |       | Sumika               |            |            | Regulation       |       |
|             |             |       | Technoservice        |            |            | (EC) No          |       |
|             |             |       | Corporation, Japan   |            |            | 1107/2009        |       |
|             |             |       | GLP, Unpublished     |            |            |                  |       |

| Data point  | Author(s)   | Year | Title                      | Vertebrate | Data       | Justification if | Owner |
|-------------|-------------|------|----------------------------|------------|------------|------------------|-------|
|             |             |      | Company Report             | study      | protection | data             |       |
|             |             |      | No.                        | Y/N        | claimed    | protection is    |       |
|             |             |      | Source (where              |            | Y/N        | claimed          |       |
|             |             |      | different from             |            |            |                  |       |
|             |             |      | company)                   |            |            |                  |       |
|             |             |      | GLP or GEP status          |            |            |                  |       |
|             |             |      | Published or not           |            |            |                  |       |
|             |             |      |                            |            |            |                  |       |
| CA 8.2.3/06 | Dionne, E.  | 1998 | Sumilarv T.G. –            | N          | N          | NA               | SUM   |
|             |             |      | Acute Toxicity to          |            |            |                  |       |
|             |             |      | Eastern Oyster             |            |            |                  |       |
|             |             |      | (Crassostrea               |            |            |                  |       |
|             |             |      | virginica) Under           |            |            |                  |       |
|             |             |      | Flow-Through               |            |            |                  |       |
|             |             |      | Conditions                 |            |            |                  |       |
|             |             |      | Company Report             |            |            |                  |       |
|             |             |      | No.: NNW-0138              |            |            |                  |       |
|             |             |      | Springborn                 |            |            |                  |       |
|             |             |      | Laboratories Inc.,         |            |            |                  |       |
|             |             |      | USA                        |            |            |                  |       |
|             |             |      | GLP, Unpublished           |            |            |                  |       |
| CA 8.2.3/07 | Sousa, J.V. | 1999 | Sumilarv T.G. –            | N          | N          | NA               | SUM   |
|             |             |      | Acute Toxicity to          |            |            |                  |       |
|             |             |      | Mysids ( <i>Mysidopsis</i> |            |            |                  |       |
|             |             |      | bahia) Under Flow-         |            |            |                  |       |
|             |             |      | Through Conditions         |            |            |                  |       |
|             |             |      | Company Report             |            |            |                  |       |
|             |             |      | No.: NNW-0139              |            |            |                  |       |
|             |             |      | Springborn                 |            |            |                  |       |
|             |             |      | Laboratories Inc.,         |            |            |                  |       |
|             |             |      | USA                        |            |            |                  |       |
|             |             |      | GLP, Unpublished           |            |            |                  |       |

| Data point | Author(s)       | Year | Title                           | Vertebrate | Data       | Justification if | Owner |
|------------|-----------------|------|---------------------------------|------------|------------|------------------|-------|
|            |                 |      | Company Report                  | study      | protection | data             |       |
|            |                 |      | No.                             | Y/N        | claimed    | protection is    |       |
|            |                 |      | Source (where                   |            | Y/N        | claimed          |       |
|            |                 |      | different from                  |            |            |                  |       |
|            |                 |      | company)                        |            |            |                  |       |
|            |                 |      | GLP or GEP status               |            |            |                  |       |
|            |                 |      | Published or not                |            |            |                  |       |
|            |                 |      |                                 |            |            |                  |       |
| CA         | Blakemore, G.C. | 1992 | Chronic toxicity of             | N          | N          | NA               | SUM   |
| 8.2.4/01a  | Butzlaff, T.S.  |      | 14C-Sumilarv to                 |            |            |                  |       |
|            | Stuerman, L.    |      | Daphnia magna                   |            |            |                  |       |
|            |                 |      | under flow-through              |            |            |                  |       |
|            |                 |      | test conditions                 |            |            |                  |       |
|            |                 |      | Company Report                  |            |            |                  |       |
|            |                 |      | No.: NNW-21-0075                |            |            |                  |       |
|            |                 |      | ABC Laboratories,               |            |            |                  |       |
|            |                 |      | Inc., USA                       |            |            |                  |       |
|            |                 |      | GLP, Unpublished                |            |            |                  |       |
| CA         | Lewis, G.       | 2016 | Derivation of                   | N          | Υ          | NA               | SUM   |
| 8.2.4/01b  |                 |      | endpoints (EC <sub>10</sub> and |            |            |                  |       |
|            |                 |      | EC <sub>20</sub> values) for    |            |            |                  |       |
|            |                 |      | Daphnia magna                   |            |            |                  |       |
|            |                 |      | chronic toxicity                |            |            |                  |       |
|            |                 |      | study with                      |            |            |                  |       |
|            |                 |      | pyriproxyfen.                   |            |            |                  |       |
|            |                 |      | Sumitomo Chemical               |            |            |                  |       |
|            |                 |      | Co., Ltd.                       |            |            |                  |       |
|            |                 |      | Unpublished report              |            |            |                  |       |
|            |                 |      | No.: NNW-0247                   |            |            |                  |       |

| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PyPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr = Full Life-Cycle Toxicity Tests with Water Fleas, Daphnia magna, Under Flow-Through Conditions Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished Conditions Company Report No.: Nowner Fleas, Daphnia magna, Under Flow-Through Conditions Company Report No.: Nowner Fleas, Daphnia magna, Under Fleas, Daphnia magna, Under Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient, | Data point  | Author(s)    | Year  | Title                 | Vertebrate | Data       | Justification if | Owner |
|--|-------------|--------------|-------|-----------------------|------------|------------|------------------|-------|
| No. Source (where different from company) GLP or GEP status Published or not  CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PYPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr = Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr = Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,                         | ·           |              |       | Company Report        |            | protection |                  |       |
| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PyPAC and 4*-OH-Pyr to Daphnia magna Under Flow-Through Companies with Article Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       |                       | •          |            | protection is    |       |
| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. 1996 Chronic Toxicity of PYPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Phaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | Source (where         |            | Y/N        | -                |       |
| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PyPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Telas, Daphnia magna, Under Flow-Through Conditions  Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Fleas, Daphnia magna, Under Flow-Through Conditions  Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | ,                     |            |            |                  |       |
| GLP or GEP status Published or not  CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D.  PYPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       |                       |            |            |                  |       |
| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PYPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       |                       |            |            |                  |       |
| CA 8.2.4/02 Rhodes, J.E. Bucksath, J.D. PYPAC and 4'-OH-Pyr to Daphnia magna Under Flow-Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Companya Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished Shaw, A.C. 2015a 4'-OH-Pyr - Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       |                       |            |            |                  |       |
| Bucksath, J.D.  PYPAC and 4'-OH- Pyr to Daphnia magna Under Flow- Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       |                       |            |            |                  |       |
| Bucksath, J.D.  PYPAC and 4"-OH- Pyr to Daphnia magna Under Flow- Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   | CA 8.2.4/02 | Rhodes, J.E. | 1996  | Chronic Toxicity of   | N          | N          | NA               | SUM   |
| Pyr to Daphnia magna Under Flow- Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | _                     |            |            |                  |       |
| magna Under Flow- Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             | ,            |       |                       |            |            |                  |       |
| Through Conditions Company Report No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       |                       |            |            |                  |       |
| CA 8.2.4/03 Shaw, A.C. 2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | _                     |            |            |                  |       |
| No.: NNW-0127 ABC Laboratories, Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | _                     |            |            |                  |       |
| Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       |                       |            |            |                  |       |
| Inc., USA GLP, Unpublished  CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | ABC Laboratories,     |            |            |                  |       |
| CA 8.2.4/03 Shaw, A.C.  2015a 4'-OH-Pyr – Full Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | Inc., USA             |            |            |                  |       |
| Life-Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | GLP, Unpublished      |            |            |                  |       |
| Test with Water Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  | CA 8.2.4/03 | Shaw, A.C.   | 2015a | 4'-OH-Pyr – Full      | N          | Υ          | Data             | SUM   |
| Fleas, Daphnia magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | Life-Cycle Toxicity   |            |            | protection is    |       |
| magna, Under Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | Test with Water       |            |            | claimed in       |       |
| Flow-Through Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | Fleas, <i>Daphnia</i> |            |            | accordance       |       |
| Conditions Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | <i>magna</i> , Under  |            |            | with Article     |       |
| Following OECD Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | Flow-Through          |            |            | 59 of            |       |
| Guideline #211 Company Report No.: NNW-0238 Smithers Viscient,   |             |              |       | Conditions            |            |            | Regulation       |       |
| Company Report No.: NNW-0238 Smithers Viscient,  |             |              |       | Following OECD        |            |            | (EC) No          |       |
| No.: NNW-0238 Smithers Viscient,   |             |              |       | Guideline #211        |            |            | 1107/2009        |       |
| Smithers Viscient,   |             |              |       | Company Report        |            |            |                  |       |
|  |             |              |       | No.: NNW-0238         |            |            |                  |       |
| IISA   |             |              |       | Smithers Viscient,    |            |            |                  |       |
|  |             |              |       | USA                   |            |            |                  |       |
| GLP, Unpublished   |             |              |       | GLP, Unpublished      |            |            |                  |       |

| Data point  | Author(s)  | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|-------------|------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA 8.2.4/04 | Shaw, A.C. | 2015b | DPH-Pyr – Full Life- Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Static renewal Conditions Following OECD Guideline #211 Company Report No.: NNW-0239 Smithers Viscient, USA GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |
| CA 8.2.4/05 | Shaw, A.C. | 2015c | PYPA – Full Life- Cycle Toxicity Test with Water Fleas, Daphnia magna, Under Static renewal Conditions Following OECD Guideline #211 Company Report No.: NNW-0241 Smithers Viscient, USA GLP, Unpublished    | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point  | Author(s)                 | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|-------------|---------------------------|-------|---|----------------------------|--------------------------------------|---|-------|
| CA 8.2.4/06 | Hagino, S.,<br>Matsuda T. | 1992a | Effect of pyriproxyfen on growth of Asellus hilgendorfii (Crustacea). Sumitomo Chemical Co., Ltd. Unpublished report No.: NNW-21-0081       | N                          | N                                    | NA  | SUM   |
| CA 8.2.4/07 | Hagino, S.,<br>Matsuda T. | 1992d | Effect of pyriproxyfen on reproduction of Asellus hilgendorfii (Crustacea). Sumitomo Chemical Co., Ltd. Unpublished report No.: NNW-21-0082 | N                          | N                                    | NA  | SUM   |
| CA 8.2.4/08 | Hagino, S.,<br>Matsuda T. | 1992c | Effect of pyriproxyfen on growth of Tigropius japonicus. Sumitomo Chemical Co., Ltd. Unpublished report No.: NNW-21-0085                    | N                          | N                                    | NA  | SUM   |

| Data point  | Author(s)      | Year  | Title                | Vertebrate | Data       | Justification if | Owner |
|-------------|----------------|-------|----------------------|------------|------------|------------------|-------|
|             |                |       | Company Report       | study      | protection | data             |       |
|             |                |       | No.                  | Y/N        | claimed    | protection is    |       |
|             |                |       | Source (where        |            | Y/N        | claimed          |       |
|             |                |       | different from       |            |            |                  |       |
|             |                |       | company)             |            |            |                  |       |
|             |                |       | GLP or GEP status    |            |            |                  |       |
|             |                |       | Published or not     |            |            |                  |       |
|             |                |       |                      |            |            |                  |       |
| CA 8.2.4/09 | Hagino, S.,    | 1992b | Effect of            | N          | N          | NA               | SUM   |
|             | Matsuda T.     |       | pyriproxyfen on      |            |            |                  |       |
|             | ļ              |       | reproduction of      |            |            |                  |       |
|             |                |       | Tigropius japonicus. |            |            |                  |       |
|             |                |       | Sumitomo Chemical    |            |            |                  |       |
|             |                |       | Co., Ltd.            |            |            |                  |       |
|             |                |       | Unpublished report   |            |            |                  |       |
|             |                |       | No.: NNW-21-0084     |            |            |                  |       |
| CA 8.2.4/10 | Kagoshima, M., | 1995  | Effect of            | N          | N          | NA               | SUM   |
|             | Kobayashi, H., |       | pyriproxyfen on      |            |            |                  |       |
|             | Sato, T.,      |       | reproduction of      |            |            |                  |       |
|             | Takimoto Y.    |       | Daphnia pulex.       |            |            |                  |       |
|             |                |       | Sumitomo Chemical    |            |            |                  |       |
|             |                |       | Co., Ltd.            |            |            |                  |       |
|             |                |       | Unpublished report   |            |            |                  |       |
|             |                |       | No.: NNW-50-0120     |            |            |                  |       |

| Data point | Author(s)     | Year | Title                           | Vertebrate | Data       | Justification if | Owner |
|------------|---------------|------|---------------------------------|------------|------------|------------------|-------|
|            |               |      | Company Report                  | study      | protection | data             |       |
|            |               |      | No.                             | Y/N        | claimed    | protection is    |       |
|            |               |      | Source (where                   |            | Y/N        | claimed          |       |
|            |               |      | different from                  |            |            |                  |       |
|            |               |      | company)                        |            |            |                  |       |
|            |               |      | GLP or GEP status               |            |            |                  |       |
|            |               |      | Published or not                |            |            |                  |       |
|            |               |      |                                 |            |            |                  |       |
| CA         | Machado, M.W. | 1995 | Sumilarv                        | N          | N          | NA               | SUM   |
| 8.2.4/11a  |               |      | (pyriproxyfen) -                |            |            |                  |       |
|            |               |      | Chronic toxicity to             |            |            |                  |       |
|            |               |      | mysids (Mysidopsis              |            |            |                  |       |
|            |               |      | bahia) under flow-              |            |            |                  |       |
|            |               |      | through test                    |            |            |                  |       |
|            |               |      | conditions                      |            |            |                  |       |
|            |               |      | Company Report                  |            |            |                  |       |
|            |               |      | No.: NNW-51-0119                |            |            |                  |       |
|            |               |      | Springborn                      |            |            |                  |       |
|            |               |      | Laboratories, Inc.,             |            |            |                  |       |
|            |               |      | USA                             |            |            |                  |       |
|            |               |      | GLP, Unpublished                |            |            |                  |       |
| CA         | Lewis, G.     | 2016 | Derivation of                   | N          | Υ          | NA               | SUM   |
| 8.2.4/11b  |               |      | endpoints (EC <sub>10</sub> and |            |            |                  |       |
|            |               |      | EC <sub>20</sub> values) for    |            |            |                  |       |
|            |               |      | Mysidopsis bahia                |            |            |                  |       |
|            |               |      | chronic toxicity                |            |            |                  |       |
|            |               |      | study with                      |            |            |                  |       |
|            |               |      | pyriproxyfen.                   |            |            |                  |       |
|            |               |      | Sumitomo Chemical               |            |            |                  |       |
|            |               |      | Co., Ltd.                       |            |            |                  |       |
|            |               |      | Unpublished report              |            |            |                  |       |
|            |               |      | No.: NNW-0249                   |            |            |                  |       |

| Data point  | Author(s)     | Year | Title                    | Vertebrate | Data       | Justification if | Owner |
|-------------|---------------|------|--------------------------|------------|------------|------------------|-------|
|             |               |      | Company Report           | study      | protection | data             |       |
|             |               |      | No.                      | Y/N        | claimed    | protection is    |       |
|             |               |      | Source (where            |            | Y/N        | claimed          |       |
|             |               |      | different from           |            |            |                  |       |
|             |               |      | company)                 |            |            |                  |       |
|             |               |      | GLP or GEP status        |            |            |                  |       |
|             |               |      | Published or not         |            |            |                  |       |
|             |               |      |                          |            |            |                  |       |
| CA 8.2.4/12 | Biester, M.A. | 2011 | Pyriproxyfen:            | N          | Υ          | Data             | SUM   |
|             |               |      | Chronic Toxicity         |            |            | protection is    |       |
|             |               |      | Test with Mayfly         |            |            | claimed in       |       |
|             |               |      | Nymphs (Cloeon           |            |            | accordance       |       |
|             |               |      | dipterum) Under          |            |            | with Article     |       |
|             |               |      | Semi-Static              |            |            | 59 of            |       |
|             |               |      | Conditions               |            |            | Regulation       |       |
|             |               |      | Company Report           |            |            | (EC) No          |       |
|             |               |      | No.: NNW-0209            |            |            | 1107/2009        |       |
|             |               |      | Smithers Viscient        |            |            |                  |       |
|             |               |      | AG, Switzerland          |            |            |                  |       |
|             |               |      | GLP, Unpublished         |            |            |                  |       |
| CA 8.2.4/13 | Putt, A.E.    | 2003 | Pyriproxyfen - The       | N          | N          | NA               | SUM   |
|             |               |      | full life-cycle toxicity |            |            |                  |       |
|             |               |      | to midge                 |            |            |                  |       |
|             |               |      | (Chironomus              |            |            |                  |       |
|             |               |      | riparius) under          |            |            |                  |       |
|             |               |      | static conditions        |            |            |                  |       |
|             |               |      | Company Report           |            |            |                  |       |
|             |               |      | No.: NNW-0157            |            |            |                  |       |
|             |               |      | Springborn               |            |            |                  |       |
|             |               |      | Smithers                 |            |            |                  |       |
|             |               |      | Laboratories, USA        |            |            |                  |       |
|             |               |      | GLP, Unpublished         |            |            |                  |       |

| Data point  | Author(s)      | Year | Title                         | Vertebrate | Data       | Justification if | Owner |
|-------------|----------------|------|-------------------------------|------------|------------|------------------|-------|
|             |                |      | Company Report                | study      | protection | data             |       |
|             |                |      | No.                           | Y/N        | claimed    | protection is    |       |
|             |                |      | Source (where                 |            | Y/N        | claimed          |       |
|             |                |      | different from                |            |            |                  |       |
|             |                |      | company)                      |            |            |                  |       |
|             |                |      | GLP or GEP status             |            |            |                  |       |
|             |                |      | Published or not              |            |            |                  |       |
|             |                |      |                               |            |            |                  |       |
| CA 8.2.4/14 | Picard, C.     | 2015 | 42-Day Toxicity               | N          | Υ          | Data             | SUM   |
|             |                |      | Test Exposing                 |            |            | protection is    |       |
|             |                |      | Freshwater                    |            |            | claimed in       |       |
|             |                |      | Amphipods                     |            |            | accordance       |       |
|             |                |      | ( <i>Hyalella azteca</i> ) to |            |            | with Article     |       |
|             |                |      | Pyriproxyfen                  |            |            | 59 of            |       |
|             |                |      | Applied to Sediment           |            |            | Regulation       |       |
|             |                |      | Under Static-                 |            |            | (EC) No          |       |
|             |                |      | Renewal Conditions            |            |            | 1107/2009        |       |
|             |                |      | Following EPA Test            |            |            |                  |       |
|             |                |      | Methods                       |            |            |                  |       |
|             |                |      | Company Report                |            |            |                  |       |
|             |                |      | No.: NNW-0243                 |            |            |                  |       |
|             |                |      | Smithers Viscient,            |            |            |                  |       |
|             |                |      | USA                           |            |            |                  |       |
|             |                |      | GLP, Unpublished              |            |            |                  |       |
| CA 8.2.5/01 | Blasberg, J.W. | 1991 | Acute toxicity of             | N          | N          | NA               | SUM   |
|             | Hicks, S.L.    |      | pyriproxyfen to               |            |            |                  |       |
|             | Cramer, D.L.   |      | Selenastrum                   |            |            |                  |       |
|             |                |      | capricornutum Prinz           |            |            |                  |       |
|             |                |      | Company Report                |            |            |                  |       |
|             |                |      | No.: NNW-11-0068              |            |            |                  |       |
|             |                |      | ABC Laboratories,             |            |            |                  |       |
|             |                |      | Inc., USA                     |            |            |                  |       |
|             |                |      | GLP, Unpublished              |            |            |                  |       |

| Data point  CA 8.2.5/02 | Author(s)  Hoberg, J.R. | Year<br>2000a | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|-------------------------|-------------------------|---------------|--|----------------------------|--------------------------------------|---|-------|
| CA 6.2.3/02             | nobely, J.K.            | 2000a         | the freshwater green alga, Pseudokirchneriella subcapitata Company Report No.: NNW-0142 Springborn Laboratories, Inc., USA GLP, Unpublished                                  |                            | IN .                                 | IVA   | SOIN  |
| CA 8.2.5/03             | Hoberg, J.R.            | 2000b         | 4'-OH-Pyriproxyfen - Toxicity to the freshwater green alga, Pseudokirchneriella subcapitata Company Report No.: NNW-0145 Springborn Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA  | SUM   |

| Data point  | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|-------------|--------------|------|---|----------------------------|--------------------------------------|--|-------|
| CA 8.2.5/04 | Jüstrich, L. | 2009 | DPH-Pyr (Metabolite of Pyriproxyfen): Growth inhibition test with Pseudokirchneriella subcapitata (syn. Selenastrum capricornutum) under static conditions Company Report No.: NNW-0192 Springborn Smithers Laboratories (Europe), Switzerland GLP, Unpublished | Z                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point       | Author(s)    | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|------------------|--------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA 8.2.5/05      | Hara, T.     | 2015c | Growth inhibition study of PYPA with freshwater green alga Pseudokirchneriella subcapitata Company Report No.: NNW-0224 Sumika Technoservice Corporation, Japan GLP, Unpublished | N                          | Υ                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |
| CA<br>8.2.5.2/08 | Roessink, I. | 2018  | Chronic effects of the insecticide pyriproxyfen to three aquatic macroinvertebrates Company Report No. NNW-0259 Alterra, The Netherlands GLP, Unpublished                        | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point   | Author(s)    | Year | Title                  | Vertebrate | Data       | Justification if | Owner |
|--------------|--------------|------|------------------------|------------|------------|------------------|-------|
|              |              |      | Company Report         | study      | protection | data             |       |
|              |              |      | No.                    | Y/N        | claimed    | protection is    |       |
|              |              |      | Source (where          |            | Y/N        | claimed          |       |
|              |              |      | different from         |            |            |                  |       |
|              |              |      | company)               |            |            |                  |       |
|              |              |      | GLP or GEP status      |            |            |                  |       |
|              |              |      | Published or not       |            |            |                  |       |
|              |              |      |                        |            |            |                  |       |
| CA 8.2.6/01  | Hoberg, J.R. | 1996 | Pyriproxyfen -         | N          | N          | NA               | SUM   |
|              |              |      | Toxicity to            |            |            |                  |       |
|              |              |      | duckweed, <i>Lemna</i> |            |            |                  |       |
|              |              |      | gibba                  |            |            |                  |       |
|              |              |      | Company Report         |            |            |                  |       |
|              |              |      | No.: NNW-0126          |            |            |                  |       |
|              |              |      | Springborn             |            |            |                  |       |
|              |              |      | Laboratories, Inc.,    |            |            |                  |       |
|              |              |      | USA                    |            |            |                  |       |
|              |              |      | GLP, Unpublished       |            |            |                  |       |
| CA           | Hoberg, J.R. | 2001 | Pyriproxyfen - Acute   | N          | N          | NA               | SUM   |
| 8.3.1.1.1/01 |              |      | contact and oral       |            |            |                  |       |
|              |              |      | toxicity tests with    |            |            |                  |       |
|              |              |      | honey bees (Apis       |            |            |                  |       |
|              |              |      | mellifera)             |            |            |                  |       |
|              |              |      | Company Report         |            |            |                  |       |
|              |              |      | No.: NNW-0149          |            |            |                  |       |
|              |              |      | Springborn             |            |            |                  |       |
|              |              |      | Laboratories, Inc.,    |            |            |                  |       |
|              |              |      | USA                    |            |            |                  |       |
|              |              |      | GLP, Unpublished       |            |            |                  |       |

| Data point   | Author(s)    | Year | Title                | Vertebrate | Data       | Justification if | Owner |
|--------------|--------------|------|----------------------|------------|------------|------------------|-------|
|              |              |      | Company Report       | study      | protection | data             |       |
|              |              |      | No.                  | Y/N        | claimed    | protection is    |       |
|              |              |      | Source (where        |            | Y/N        | claimed          |       |
|              |              |      | different from       |            |            |                  |       |
|              |              |      | company)             |            |            |                  |       |
|              |              |      | GLP or GEP status    |            |            |                  |       |
|              |              |      | Published or not     |            |            |                  |       |
|              |              |      |                      |            |            |                  |       |
| CA           | Vergé, E.    | 2015 | Pyriproxyfen TG -    | N          | Υ          | Data             | SUM   |
| 8.3.1.1.1/02 |              |      | Acute Oral and       |            |            | protection is    |       |
|              |              |      | Contact Toxicity to  |            |            | claimed in       |       |
|              |              |      | the Bumble Bee,      |            |            | accordance       |       |
|              |              |      | Bombus terrestris L. |            |            | with Article     |       |
|              |              |      | under Laboratory     |            |            | 59 of            |       |
|              |              |      | Conditions           |            |            | Regulation       |       |
|              |              |      | Company Report       |            |            | (EC) No          |       |
|              |              |      | No.: NNW-0240        |            |            | 1107/2009        |       |
|              |              |      | Eurofins             |            |            |                  |       |
|              |              |      | Agroscience          |            |            |                  |       |
|              |              |      | Services EcoChem     |            |            |                  |       |
|              |              |      | GmbH, Germany        |            |            |                  |       |
|              |              |      | GLP, Unpublished     |            |            |                  |       |
| CA           | Atkins, E.L. | 1989 | Bee adult toxicity   | N          | N          | NA               | SUM   |
| 8.3.1.1.2/02 |              |      | dusting test         |            |            |                  |       |
|              |              |      | Company Report       |            |            |                  |       |
|              |              |      | No.: NNW-91-0087     |            |            |                  |       |
|              |              |      | University of        |            |            |                  |       |
|              |              |      | California, USA      |            |            |                  |       |
|              |              |      | Not GLP,             |            |            |                  |       |
|              |              |      | Unpublished          |            |            |                  |       |

| Data point | Author(s)     | Year | Title                | Vertebrate | Data       | Justification if | Owner |
|------------|---------------|------|----------------------|------------|------------|------------------|-------|
|            |               |      | Company Report       | study      | protection | data             |       |
|            |               |      | No.                  | Y/N        | claimed    | protection is    |       |
|            |               |      | Source (where        |            | Y/N        | claimed          |       |
|            |               |      | different from       |            |            |                  |       |
|            |               |      | company)             |            |            |                  |       |
|            |               |      | GLP or GEP status    |            |            |                  |       |
|            |               |      | Published or not     |            |            |                  |       |
|            |               |      |                      |            |            |                  |       |
| CA         | De Wael, L.   | 1989 | Selectivity of       | N          | N          | NA               | SUM   |
| 8.3.1.3/01 | De Greef, M.  |      | pyriproxyfen for the |            |            |                  |       |
|            | Van Laere, O. |      | brood development    |            |            |                  |       |
|            |               |      | of bumblebees        |            |            |                  |       |
|            |               |      | under controlled     |            |            |                  |       |
|            |               |      | conditions           |            |            |                  |       |
|            |               |      | Company Report       |            |            |                  |       |
|            |               |      | No.: NNW-21-0086     |            |            |                  |       |
|            |               |      | Rijkstation voor     |            |            |                  |       |
|            |               |      | Nematologie en       |            |            |                  |       |
|            |               |      | Entomologie,         |            |            |                  |       |
|            |               |      | Belgium              |            |            |                  |       |
|            |               |      | Not GLP,             |            |            |                  |       |
|            |               |      | Unpublished          |            |            |                  |       |

| Data point | Author(s)   | Year | Title               | Vertebrate | Data       | Justification if | Owner |
|------------|-------------|------|---------------------|------------|------------|------------------|-------|
|            |             |      | Company Report      | study      | protection | data             |       |
|            |             |      | No.                 | Y/N        | claimed    | protection is    |       |
|            |             |      | Source (where       |            | Y/N        | claimed          |       |
|            |             |      | different from      |            |            |                  |       |
|            |             |      | company)            |            |            |                  |       |
|            |             |      | GLP or GEP status   |            |            |                  |       |
|            |             |      | Published or not    |            |            |                  |       |
|            |             |      |                     |            |            |                  |       |
| CA         | Hagino, S   | 1992 | Effects of          | N          | N          | NA               | SUM   |
| 8.3.1.3/02 | Matuura, Y  |      | pyriproxyfen on the |            |            |                  |       |
|            | Matsuda, T. |      | honeybee colony -   |            |            |                  |       |
|            |             |      | administered with a |            |            |                  |       |
|            |             |      | pollen containing   |            |            |                  |       |
|            |             |      | pyriproxyfen -      |            |            |                  |       |
|            |             |      | Company Report      |            |            |                  |       |
|            |             |      | No.: NNW-21-0097    |            |            |                  |       |
|            |             |      | Environmental       |            |            |                  |       |
|            |             |      | Health Science      |            |            |                  |       |
|            |             |      | Laboratory, Japan   |            |            |                  |       |
|            |             |      | Environmental       |            |            |                  |       |
|            |             |      | Health Science      |            |            |                  |       |
|            |             |      | Laboratory, Japan   |            |            |                  |       |
|            |             |      | Not GLP,            |            |            |                  |       |
|            |             |      | Unpublished         |            |            |                  |       |

| Data point | Author(s)       | Year | Title                 | Vertebrate | Data       | Justification if | Owner |
|------------|-----------------|------|-----------------------|------------|------------|------------------|-------|
|            |                 |      | Company Report        | study      | protection | data             |       |
|            |                 |      | No.                   | Y/N        | claimed    | protection is    |       |
|            |                 |      | Source (where         |            | Y/N        | claimed          |       |
|            |                 |      | different from        |            |            |                  |       |
|            |                 |      | company)              |            |            |                  |       |
|            |                 |      | GLP or GEP status     |            |            |                  |       |
|            |                 |      | Published or not      |            |            |                  |       |
|            |                 |      |                       |            |            |                  |       |
| CA         | Roig, J.        | 2014 | Pyriproxyfen TG -     | N          | Υ          | Data             | SUM   |
| 8.3.1.2/01 |                 |      | Assessment of         |            |            | protection is    |       |
|            |                 |      | Chronic Effects to    |            |            | claimed in       |       |
|            |                 |      | the Honeybee (Apis    |            |            | accordance       |       |
|            |                 |      | mellifera L.) in a 10 |            |            | with Article     |       |
|            |                 |      | Days Continuous       |            |            | 59 of            |       |
|            |                 |      | Laboratory Feeding    |            |            | Regulation       |       |
|            |                 |      | Test                  |            |            | (EC) No          |       |
|            |                 |      | Company Report        |            |            | 1107/2009        |       |
|            |                 |      | No.: NNW-0219         |            |            |                  |       |
|            |                 |      | MITOX Consultants,    |            |            |                  |       |
|            |                 |      | The Netherlands       |            |            |                  |       |
|            |                 |      | GLP, Unpublished      |            |            |                  |       |
| CA         | Nienstedt, K.M. | 2006 | Brood study           | N          | Υ          | Data             | SUM   |
| 8.3.1.3/03 |                 |      | exposing Apis         |            |            | protection is    |       |
|            |                 |      | mellifera             |            |            | claimed in       |       |
|            |                 |      | (Hymenoptera:         |            |            | accordance       |       |
|            |                 |      | Apidae) to            |            |            | with Article     |       |
|            |                 |      | Pyriproxyfen 10 EC    |            |            | 59 of            |       |
|            |                 |      | Company Report        |            |            | Regulation       |       |
|            |                 |      | No.: NNW-0179         |            |            | (EC) No          |       |
|            |                 |      | Springborn            |            |            | 1107/2009        |       |
|            |                 |      | Smithers              |            |            |                  |       |
|            |                 |      | Laboratories          |            |            |                  |       |
|            |                 |      | (Europe) AG,          |            |            |                  |       |
|            |                 |      | Switzerland           |            |            |                  |       |
|            |                 |      | GLP, Unpublished      |            |            |                  |       |

| Data point  | Author(s)      | Year | Title              | Vertebrate | Data       | Justification if | Owner |
|-------------|----------------|------|--------------------|------------|------------|------------------|-------|
|             |                |      | Company Report     | study      | protection | data             |       |
|             |                |      | No.                | Y/N        | claimed    | protection is    |       |
|             |                |      | Source (where      |            | Y/N        | claimed          |       |
|             |                |      | different from     |            |            |                  |       |
|             |                |      | company)           |            |            |                  |       |
|             |                |      | GLP or GEP status  |            |            |                  |       |
|             |                |      | Published or not   |            |            |                  |       |
|             |                |      |                    |            |            |                  |       |
| CA          | Patnaude, M.R. | 2015 | Pyriproxyfen T.G.: | N          | Υ          | Data             | SUM   |
| 8.3.1.3/04  |                |      | 22-Day Survival of |            |            | protection is    |       |
|             |                |      | Honey Bee Larvae,  |            |            | claimed in       |       |
|             |                |      | Apis mellifera L., |            |            | accordance       |       |
|             |                |      | during an In Vitro |            |            | with Article     |       |
|             |                |      | Exposure           |            |            | 59 of            |       |
|             |                |      | Company Report     |            |            | Regulation       |       |
|             |                |      | No.: NNW-0242      |            |            | (EC) No          |       |
|             |                |      | Smithers Viscient, |            |            | 1107/2009        |       |
|             |                |      | USA                |            |            |                  |       |
|             |                |      | GLP, Unpublished   |            |            |                  |       |
| CA 8.4.1/01 | Van Dijk, A.   | 1988 | Acute toxicity     | N          | N          | NA               | SUM   |
|             |                |      | (LC50) study of S- |            |            |                  |       |
|             |                |      | 31183 to           |            |            |                  |       |
|             |                |      | earthworms         |            |            |                  |       |
|             |                |      | Company Report     |            |            |                  |       |
|             |                |      | No.: NNW-71-0012   |            |            |                  |       |
|             |                |      | RCC Umweltchemie   |            |            |                  |       |
|             |                |      | AG, Switzerland    |            |            |                  |       |
|             |                |      | GLP, Unpublished   |            |            |                  |       |

| Data point  | Author(s)   | Year  | Title Company Report No.     | Vertebrate<br>study<br>Y/N | Data protection claimed | Justification if data protection is | Owner |
|-------------|-------------|-------|------------------------------|----------------------------|-------------------------|-------------------------------------|-------|
|             |             |       | Source (where different from |                            | Y/N                     | claimed                             |       |
|             |             |       |                              |                            |                         |                                     |       |
|             |             |       | company) GLP or GEP status   |                            |                         |                                     |       |
|             |             |       | Published or not             |                            |                         |                                     |       |
|             |             |       | Published of flot            |                            |                         |                                     |       |
| CA 8.4.1/02 | Straube, D. | 2015a | Pyriproxyfen T.G.:           | N                          | Υ                       | Data                                | SUM   |
|             | ,           |       | Effects on                   |                            |                         | protection is                       |       |
|             |             |       | Reproduction and             |                            |                         | claimed in                          |       |
|             |             |       | Growth of                    |                            |                         | accordance                          |       |
|             |             |       | Earthworms <i>Eisenia</i>    |                            |                         | with Article                        |       |
|             |             |       | fetida in Artificial         |                            |                         | 59 of                               |       |
|             |             |       | Soil with 5% Peat            |                            |                         | Regulation                          |       |
|             |             |       | Company Report               |                            |                         | (EC) No                             |       |
|             |             |       | No.: NNW-0235                |                            |                         | 1107/2009                           |       |
|             |             |       | IBACON GmbH,                 |                            |                         |                                     |       |
|             |             |       | Germany                      |                            |                         |                                     |       |
|             |             |       | GLP, Unpublished             |                            |                         |                                     |       |
| CA 8.4.1/03 | Straube, D. | 2015b | PYPAC: Effects on            | N                          | Υ                       | Data                                | SUM   |
|             |             |       | Reproduction and             |                            |                         | protection is                       |       |
|             |             |       | Growth of                    |                            |                         | claimed in                          |       |
|             |             |       | Earthworms <i>Eisenia</i>    |                            |                         | accordance                          |       |
|             |             |       | fetida in Artificial         |                            |                         | with Article                        |       |
|             |             |       | Soil with 5% Peat            |                            |                         | 59 of                               |       |
|             |             |       | Company Report               |                            |                         | Regulation                          |       |
|             |             |       | No.: NNW-0233                |                            |                         | (EC) No                             |       |
|             |             |       | IBACON GmbH,                 |                            |                         | 1107/2009                           |       |
|             |             |       | Germany                      |                            |                         |                                     |       |
|             |             |       | GLP, Unpublished             |                            |                         |                                     |       |

| Data point       | Author(s)   | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|------------------|-------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CA 8.4.1/04      | Witte, B.   | 2015a | 4'-OH-Pyr: Effects on Reproduction and Growth of Earthworms Eisenia fetida in Artificial Soil with 5% Peat Company Report No.: NNW-0230 IBACON GmbH, Germany GLP, Unpublished    | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |
| CA<br>8.4.2.1/01 | Straube, D. | 2015c | Pyriproxyfen T.G.: Effects on Reproduction of the Collembola Folsomia candida in Artificial Soil with 5% Peat Company Report No.: NNW-0234 IBACON GmbH, Germany GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point | Author(s) | Year  | Title                | Vertebrate | Data       | Justification if | Owner |
|------------|-----------|-------|----------------------|------------|------------|------------------|-------|
|            |           |       | Company Report       | study      | protection | data             |       |
|            |           |       | No.                  | Y/N        | claimed    | protection is    |       |
|            |           |       | Source (where        |            | Y/N        | claimed          |       |
|            |           |       | different from       |            |            |                  |       |
|            |           |       | company)             |            |            |                  |       |
|            |           |       | GLP or GEP status    |            |            |                  |       |
|            |           |       | Published or not     |            |            |                  |       |
|            |           |       |                      |            |            |                  |       |
| CA         | Witte, B. | 2015b | PYPAC: Effects on    | N          | Υ          | Data             | SUM   |
| 8.4.2.1/02 |           |       | Reproduction of the  |            |            | protection is    |       |
|            |           |       | Collembola           |            |            | claimed in       |       |
|            |           |       | Folsomia candida in  |            |            | accordance       |       |
|            |           |       | Artificial Soil with |            |            | with Article     |       |
|            |           |       | 5% Peat              |            |            | 59 of            |       |
|            |           |       | Company Report       |            |            | Regulation       |       |
|            |           |       | No.: NNW-0232        |            |            | (EC) No          |       |
|            |           |       | IBACON GmbH,         |            |            | 1107/2009        |       |
|            |           |       | Germany              |            |            |                  |       |
|            |           |       | GLP, Unpublished     |            |            |                  |       |
| CA         | Witte, B. | 2015c | 4'-OH-Pyr: Effects   | N          | Υ          | Data             | SUM   |
| 8.4.2.1/03 |           |       | on Reproduction of   |            |            | protection is    |       |
|            |           |       | the Collembola       |            |            | claimed in       |       |
|            |           |       | Folsomia candida in  |            |            | accordance       |       |
|            |           |       | Artificial Soil with |            |            | with Article     |       |
|            |           |       | 5% Peat              |            |            | 59 of            |       |
|            |           |       | Company Report       |            |            | Regulation       |       |
|            |           |       | No.: NNW-0229        |            |            | (EC) No          |       |
|            |           |       | IBACON GmbH,         |            |            | 1107/2009        |       |
|            |           |       | Germany              |            |            |                  |       |
|            |           |       | GLP, Unpublished     |            |            |                  |       |

| Data point       | Author(s)  Straube, D. | Year<br>2015d | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|------------------|------------------------|---------------|---|----------------------------|--------------------------------------|--|-------|
| 8.4.2.1/04       | Straube, D.            | 20130         | Effects on Reproduction of the Predatory Mite Hypoaspis aculeifer in Artificial Soil with 5% Peat Company Report No.: NNW-0236 IBACON GmbH, Germany GLP, Unpublished                                      | IN                         |                                      | protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009      | SUM   |
| CA<br>8.4.2.1/05 | Witte, B.              | 2015d         | PYPAC: Effects on<br>Reproduction of the<br>Predatory Mite<br>Hypoaspis aculeifer<br>in Artificial Soil with<br>5% Peat<br>Company Report<br>No.: NNW-0228<br>IBACON GmbH,<br>Germany<br>GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point       | Author(s)       | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|------------------|-----------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CA<br>8.4.2.1/06 | Witte, B.       | 2015e | 4'-OH-Pyr: Effects on Reproduction of the Predatory Mite Hypoaspis aculeifer in Artificial Soil with 5% Peat Company Report No.: NNW-0231 IBACON GmbH, Germany GLP, Unpublished | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |
| CA 8.5/03        | Baumgartner, D. | 2005  | Pyriproxyfen: Determination of effects on soil microflora activity Company Report No.: NNW-0178 Springborn Laboratories (Europe) AG, Switzerland GLP, Unpublished               | N                          | N                                    | NA   | SUM   |

| Data point  | Author(s)     | Year | Title                  | Vertebrate | Data       | Justification if | Owner |
|-------------|---------------|------|------------------------|------------|------------|------------------|-------|
|             |               |      | Company Report         | study      | protection | data             |       |
|             |               |      | No.                    | Y/N        | claimed    | protection is    |       |
|             |               |      | Source (where          |            | Y/N        | claimed          |       |
|             |               |      | different from         |            |            |                  |       |
|             |               |      | company)               |            |            |                  |       |
|             |               |      | GLP or GEP status      |            |            |                  |       |
|             |               |      | Published or not       |            |            |                  |       |
|             |               |      |                        |            |            |                  |       |
| CA 8.6.1/01 | Mito, N.      | 2001 | Evaluation of          | N          | N          | NA               | SUM   |
|             |               |      | herbicidal activity of |            |            |                  |       |
|             |               |      | pyriproxyfen           |            |            |                  |       |
|             |               |      | Company Report         |            |            |                  |       |
|             |               |      | No.: NNG-0071          |            |            |                  |       |
|             |               |      | Agricultural           |            |            |                  |       |
|             |               |      | Chemicals              |            |            |                  |       |
|             |               |      | Research               |            |            |                  |       |
|             |               |      | Laboratory, Japan      |            |            |                  |       |
|             |               |      | Not GLP,               |            |            |                  |       |
|             |               |      | Unpublished            |            |            |                  |       |
| CA 8.6.2/01 | Sindermann,   | 2014 | Pyriproxyfen EC        | N          | N          | NA               | SUM   |
|             | A.B.          |      | Formulation: A         |            |            |                  |       |
|             | Swerida, R.M. |      | Toxicity Test to       |            |            |                  |       |
|             | Porch, J.R.   |      | Determine the          |            |            |                  |       |
|             | Bodle, E.S.   |      | Effects of the Test    |            |            |                  |       |
|             | Martin K.H.   |      | Substance on           |            |            |                  |       |
|             |               |      | Seedling               |            |            |                  |       |
|             |               |      | Emergence of Ten       |            |            |                  |       |
|             |               |      | Species of Plants      |            |            |                  |       |
|             |               |      | Company Report         |            |            |                  |       |
|             |               |      | No.: NNW-0222          |            |            |                  |       |
|             |               |      | Wildlife               |            |            |                  |       |
|             |               |      | International, USA     |            |            |                  |       |
|             |               |      | GLP, Unpublished       |            |            |                  |       |

| Data point  | Author(s)     | Year | Title Company Report   | Vertebrate study | Data protection | Justification if data | Owner |
|-------------|---------------|------|------------------------|------------------|-----------------|-----------------------|-------|
|             |               |      | No.                    | Y/N              | claimed         | protection is         |       |
|             |               |      | Source (where          |                  | Y/N             | claimed               |       |
|             |               |      | different from         |                  |                 |                       |       |
|             |               |      | company)               |                  |                 |                       |       |
|             |               |      | GLP or GEP status      |                  |                 |                       |       |
|             |               |      | Published or not       |                  |                 |                       |       |
|             |               |      |                        |                  |                 |                       |       |
| CA 8.6.2/02 | Sindermann,   | 2014 | Pyriproxyfen EC        | N                | N               | NA                    | SUM   |
|             | A.B.          |      | Formulation: A         |                  |                 |                       |       |
|             | Swerida, R.M. |      | Toxicity Test to       |                  |                 |                       |       |
|             | Porch,        |      | Determine the          |                  |                 |                       |       |
|             | J.R.Krueger,  |      | Effects of the Test    |                  |                 |                       |       |
|             | H.O.          |      | Substance on           |                  |                 |                       |       |
|             | Martin K.H.   |      | Vegetative Vigor of    |                  |                 |                       |       |
|             |               |      | Ten Species of         |                  |                 |                       |       |
|             |               |      | Plants                 |                  |                 |                       |       |
|             |               |      | Company Report         |                  |                 |                       |       |
|             |               |      | No.: NNW-0223          |                  |                 |                       |       |
|             |               |      | Wildlife               |                  |                 |                       |       |
|             |               |      | International, USA     |                  |                 |                       |       |
|             |               |      | GLP, Unpublished       |                  |                 |                       |       |
| CA 8.8/01   | L'Haridon, J. | 2001 | Pyriproxyfen:          | N                | N               | NA                    | SUM   |
|             |               |      | Activated sludge,      |                  |                 |                       |       |
|             |               |      | respiration inhibition |                  |                 |                       |       |
|             |               |      | test                   |                  |                 |                       |       |
|             |               |      | Company Report         |                  |                 |                       |       |
|             |               |      | No.: NNW-0148          |                  |                 |                       |       |
|             |               |      | Centre International   |                  |                 |                       |       |
|             |               |      | de Toxicologie,        |                  |                 |                       |       |
|             |               |      | France                 |                  |                 |                       |       |
|             |               |      | GLP, Unpublished       |                  |                 |                       |       |

| Data point | Author(s)      | Year | Title                 | Vertebrate | Data       | Justification if | Owner |
|------------|----------------|------|-----------------------|------------|------------|------------------|-------|
|            |                |      | Company Report        | study      | protection | data             |       |
|            |                |      | No.                   | Y/N        | claimed    | protection is    |       |
|            |                |      | Source (where         |            | Y/N        | claimed          |       |
|            |                |      | different from        |            |            |                  |       |
|            |                |      | company)              |            |            |                  |       |
|            |                |      | GLP or GEP status     |            |            |                  |       |
|            |                |      | Published or not      |            |            |                  |       |
|            |                |      |                       |            |            |                  |       |
| CA B.9.10- | Shimokawatoko, | 2018 | Evaluation of         | N          | Υ          | Study            | SUM   |
| 06         | Υ.             |      | insecticidal activity |            |            | submitted to     |       |
|            |                |      | of PYPAC and          |            |            | meet data        |       |
|            |                |      | pyriproxyfen          |            |            | requirements     |       |
|            |                |      | Company Report        |            |            | NEW STUDY        |       |
|            |                |      | No. NNG-0089          |            |            |                  |       |
|            |                |      | Not GLP,              |            |            | Data             |       |
|            |                |      | Unpublished           |            |            | protection is    |       |
|            |                |      |                       |            |            | claimed in       |       |
|            |                |      |                       |            |            | accordance       |       |
|            |                |      |                       |            |            | with Article     |       |
|            |                |      |                       |            |            | 59 of            |       |
|            |                |      |                       |            |            | Regulation       |       |
|            |                |      |                       |            |            | (EC) No.         |       |
|            |                |      |                       |            |            | 1107/2009        |       |

| Data point       | Author(s)            | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed  | Owner |
|------------------|----------------------|------|---|----------------------------|--------------------------------------|--|-------|
| CA B.9.10-<br>07 | Shimokawatoko,<br>Y. | 2018 | Evaluation of insecticidal activity of PYPAC and pyriproxyfen on white peach scale, Pseudaulacapis pentagona (Targioni) Company Report No. NG-0090 Not GLP, Unpublished | Z                          | Y                                    | Study submitted to meet data requirements NEW STUDY  Data protection is claimed in accordance with Article 59 of Regulation (EC) No. 1107/2009 | SUM   |
| CA 3.3.1/01      | Natsuhara, K.        | 2016 | Evaluation of insecticidal activity of PYPAC and pyriproxyfen Company Report No. NNG-0083 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY      | N                          | N                                    | NA   | SUM   |

| Data point  | Author(s)     | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification if data protection is claimed | Owner |
|-------------|---------------|------|--|----------------------------|--------------------------------------|---|-------|
| CA 3.3.1/02 | Natsuhara, K. | 2016 | Evaluation of insecticidal activity of PYPAC and pyriproxyfen Company Report No. NNG-0084 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY | N                          | N                                    | NA  | SUM   |
| CA 3.3.1/03 | Jin, Y.       | 2016 | Evaluation of herbicidal activity of PYPAC and pyriproxyfen Company Report No. NNG-0085 Not GLP, Unpublished Study submitted to meet data requirements NEW STUDY   | N                          | N                                    | NA  | SUM   |

| Data point  | Author(s)     | Year | Title                  | Vertebrate | Data       | Justification if | Owner |
|-------------|---------------|------|------------------------|------------|------------|------------------|-------|
|             |               |      | Company Report         | study      | protection | data             |       |
|             |               |      | No.                    | Y/N        | claimed    | protection is    |       |
|             |               |      | Source (where          |            | Y/N        | claimed          |       |
|             |               |      | different from         |            |            |                  |       |
|             |               |      | company)               |            |            |                  |       |
|             |               |      | GLP or GEP status      |            |            |                  |       |
|             |               |      | Published or not       |            |            |                  |       |
|             |               |      |                        |            |            |                  |       |
| CA 3.3.1/04 | Kurahashi, M. | 2016 | Evaluation of          | N          | N          | NA               | SUM   |
|             |               |      | fungicidal activity of |            |            |                  |       |
|             |               |      | PYPAC and              |            |            |                  |       |
|             |               |      | pyriproxyfen           |            |            |                  |       |
|             |               |      | Company Report         |            |            |                  |       |
|             |               |      | No. NNG-0086           |            |            |                  |       |
|             |               |      | Not GLP,               |            |            |                  |       |
|             |               |      | Unpublished            |            |            |                  |       |
|             |               |      | Study submitted        |            |            |                  |       |
|             |               |      | to meet data           |            |            |                  |       |
|             |               |      | requirements           |            |            |                  |       |
|             |               |      | NEW STUDY              |            |            |                  |       |
|             |               |      |                        |            |            |                  |       |

## References for pyriproxyfen 100 g/L EC

|  | Data point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |  |
|--|------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|--|
|--|------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|--|

| Data point   | Author(s)                         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not                            | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------|-----------------------------------|------|--|----------------------------|--------------------------------------|--|-------|
| CP 10.2.1/01 |                                   | 1992 | Static Acute Toxicity of S- 71639 10EC to Rainbow Trout (Oncorhynchus mykiss)  | Y                          | N                                    | NA   | SUM   |
| CP 10.2.1/02 | Blakemore,<br>G.C<br>Stratton, J. | 1992 | Acute Toxicity of S-71639 10EC to Daphnia magna Company Report No.: NNW-21-0096 ABC Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point       | Author(s)  | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------------|--|------|---|----------------------------|--------------------------------------|--|-------|
| CP 10.2.1/03     | Blasberg,<br>J.W.<br>Hicks, S.L.<br>Stratton, J. | 1992 | Acute Toxicity of S-71639 10EC to Selenastrum capricornutum Printz Company Report No.: NNW-21-0077 ABC Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA   | SUM   |
| CP<br>10.2.3/01a | van<br>Wijngaarden,<br>R.P.A.                    | 2004 | Pyriproxyfen 10EC: plankton- dominated microcosm experiment Company Report No.: NNW-0171 Alterra, The Netherlands GLP, Unpublished              | N                          | N                                    | NA   | SUM   |

| Data point | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------|--------------|------|---|----------------------------|--------------------------------------|--|-------|
| СР         | Deneer, J.   | 2016 | Calculation of  | N                          | Υ                                    | Data   | SUM   |
| 10.2.3/01b | Roessink, I. |      | minimal   |                            |                                      | protection is  |       |
|            | Rico, A.     |      | detectable  |                            |                                      | claimed in   |       |
|            |              |      | difference  |                            |                                      | accordance   |       |
|            |              |      | (MDD) values  |                            |                                      | with Article   |       |
|            |              |      | of a microcosm  |                            |                                      | 59 of  |       |
|            |              |      | experiment  |                            |                                      | Regulation   |       |
|            |              |      | performed with  |                            |                                      | (EC) No  |       |
|            |              |      | Pyriproxyfen  |                            |                                      | 1107/2009  |       |
|            |              |      | 10EC  |                            |                                      |  |       |
|            |              |      | Company   |                            |                                      |  |       |
|            |              |      | Report No.:   |                            |                                      |  |       |
|            |              |      | NNW-0244  |                            |                                      |  |       |
|            |              |      | Alterra, The  |                            |                                      |  |       |
|            |              |      | Netherlands   |                            |                                      |  |       |
|            |              |      | Not GLP,  |                            |                                      |  |       |
|            |              |      | Unpublished   |                            |                                      |  |       |

| Data point       | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                     | Owner |
|------------------|--------------|------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>10.2.3/01c | Roessink, I. | 2016 | Re-analysis of biological data of a microcosm experiment performed with Pyriproxyfen 10EC. II: Effect class table based on MDD information Company Report No.: NNW-0245 | N                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |
|                  |              |      | Alterra, The Netherlands Not GLP, Unpublished   |                            |                                      |  |       |

| Data point   | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------|-----------|------|--|----------------------------|--------------------------------------|--|-------|
| CP 10.2.3/02 | Lewis, G. | 2016 | Position paper on Regulatory Acceptable Concentration (RAC) of pyriproxyfen for aquatic risk assessment Company Report No.: NNW-0246 JSC International Ltd., UK Not GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point          | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------------|--------------|------|--|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.1.1.1/01 | Hoberg, J.R. | 2002 | Pyriproxyfen 10% EC - Acute contact and oral toxicity tests with honey bees (Apis mellifera) Company Report No.: NNW-0153 Spingborn Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point          | Author(s)    | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|---------------------|--------------|------|--|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.1.1.2/01 | Hoberg, J.R. | 2002 | Pyriproxyfen 10% EC - Acute contact and oral toxicity tests with honey bees (Apis mellifera) Company Report No.: NNW-0153 Spingborn Laboratories, Inc., USA GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point        | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.1.6/02 | Barth, M. | 2003 | Effects of pyriproxyfen 10% EC on the honeybee Apis mellifera L. under field conditions with additional assessments on colony and brood development Company Report No.: NNW-0167 BioChem agrar GmbH, Germany GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point        | Author(s)  | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed                                     | Owner |
|-------------------|------------|------|--|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.1.6/03 | Bakker, F. | 2011 | A field study to determine the effects of Pyriproxyfen 10% EC on the honeybee Apis mellifera L. with additional assessments on colony and brood development (+ additional analysis + statistical analysis appendix) Company Report No.: NNW-0208 MITOX Consultants, The Netherlands GLP, Unpublished | Z                          | Y                                    | Data protection is claimed in accordance with Article 59 of Regulation (EC) No 1107/2009 | SUM   |

| Data point  | Author(s)  | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------|------------|-------|---|----------------------------|--------------------------------------|--|-------|
| СР          | Nienstedt, | 2001a | Pyriproxyfen  | N                          | N                                    | NA   | SUM   |
| 10.3.2.1/01 | K.M.       |       | 10% EC: Dose  |                            |                                      |  |       |
|             |            |       | response  |                            |                                      |  |       |
|             |            |       | toxicity test with  |                            |                                      |  |       |
|             |            |       | the parasitic   |                            |                                      |  |       |
|             |            |       | wasp, <i>Aphidiu</i> s  |                            |                                      |  |       |
|             |            |       | rhopalosiphi  |                            |                                      |  |       |
|             |            |       | (Hymenoptera:   |                            |                                      |  |       |
|             |            |       | Braconidae)   |                            |                                      |  |       |
|             |            |       | Company   |                            |                                      |  |       |
|             |            |       | Report No.:   |                            |                                      |  |       |
|             |            |       | NNW-0147  |                            |                                      |  |       |
|             |            |       | Springborn  |                            |                                      |  |       |
|             |            |       | Laboratories  |                            |                                      |  |       |
|             |            |       | (Europe) AG,  |                            |                                      |  |       |
|             |            |       | Switzerland   |                            |                                      |  |       |
|             |            |       | GLP,  |                            |                                      |  |       |
|             |            |       | Unpublished   |                            |                                      |  |       |

| Data point        | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|--------------------|-------|--|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.2.1/02 | Nienstedt,<br>K.M. | 2001b | Pyriproxyfen 10% EC: Dose response toxicity test with the predacious mite, Typhlodromus pyri Scheuten (Acari: Phytoseiidae) Company Report No.: NNW-0146 Springborn Laboratories (Europe) AG, Switzerland GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point        | Author(s)         | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|-------------------|------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.2.1/03 | Kollmann,<br>S.I. | 2003 | Pyriproxyfen 10% EC: Dose   | N                          | N                                    | NA   | SUM   |
| 10.3.2.1/03       | 5.1.              |      | response  |                            |                                      |  |       |
|                   |                   |      | toxicity test with  |                            |                                      |  |       |
|                   |                   |      | the predatory   |                            |                                      |  |       |
|                   |                   |      | bug, <i>Orius</i>   |                            |                                      |  |       |
|                   |                   |      | laevigatus  |                            |                                      |  |       |
|                   |                   |      | (Heteroptera:   |                            |                                      |  |       |
|                   |                   |      | Anthocoridae)   |                            |                                      |  |       |
|                   |                   |      | Company   |                            |                                      |  |       |
|                   |                   |      | Report No.:   |                            |                                      |  |       |
|                   |                   |      | NNW-0158  |                            |                                      |  |       |
|                   |                   |      | Springborn  |                            |                                      |  |       |
|                   |                   |      | Laboratories  |                            |                                      |  |       |
|                   |                   |      | (Europe) AG,<br>Switzerland   |                            |                                      |  |       |
|                   |                   |      | GLP,  |                            |                                      |  |       |
|                   |                   |      | Unpublished   |                            |                                      |  |       |

| Data point        | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|--------------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.2.2/01 | Nienstedt,<br>K.M. | 2003a | Pyriproxyfen 10% EC: Aged residue toxicity test on grapevines held under semi-field conditions exposing Typhlodromus pyri Scheuten (Acari: Phytoseiidae) under laboratory conditions Company Report No.: NNW-0165 Springborn Laboratories (Europe) AG, Switzerland GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point        | Author(s)          | Year  | Title Company Report No. Source (where different from company) GLP or GEP status Published or not | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|--------------------|-------|---|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.2.2/02 | Nienstedt,<br>K.M. | 2003b | Pyriproxyfen<br>10% EC: Aged  | N                          | N                                    | NA   | SUM   |
|                   |                    |       | residue toxicity  |                            |                                      |  |       |
|                   |                    |       | test on   |                            |                                      |  |       |
|                   |                    |       | grapevines  |                            |                                      |  |       |
|                   |                    |       | held under  |                            |                                      |  |       |
|                   |                    |       | semi-field  |                            |                                      |  |       |
|                   |                    |       | conditions  |                            |                                      |  |       |
|                   |                    |       | exposing  |                            |                                      |  |       |
|                   |                    |       | Chrysoperla   |                            |                                      |  |       |
|                   |                    |       | carnea Steph.   |                            |                                      |  |       |
|                   |                    |       | (Neuroptera:  |                            |                                      |  |       |
|                   |                    |       | Chrysopidae)  |                            |                                      |  |       |
|                   |                    |       | under   |                            |                                      |  |       |
|                   |                    |       | laboratory  |                            |                                      |  |       |
|                   |                    |       | conditions  |                            |                                      |  |       |
|                   |                    |       | Company   |                            |                                      |  |       |
|                   |                    |       | Report No.:   |                            |                                      |  |       |
|                   |                    |       | NNW-0166<br>Springborn  |                            |                                      |  |       |
|                   |                    |       | Laboratories  |                            |                                      |  |       |
|                   |                    |       | (Europe) AG,  |                            |                                      |  |       |
|                   |                    |       | Switzerland   |                            |                                      |  |       |
|                   |                    |       | GLP,  |                            |                                      |  |       |
|                   |                    |       | Unpublished   |                            |                                      |  |       |

| Data point        | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|-------------------|-----------|------|--|----------------------------|--------------------------------------|--|-------|
| CP<br>10.3.2.2/03 | Klug, T.  | 2009 | Pyriproxyfen 10 EC: Toxicity to the Parasitic Wasp, Aphidius rhopalosiphi De Stefani Perez (Hymenoptera, Braconidae) Using an Extended Laboratory Test with Freshly Applied and Aged Residues Company Report No.: NNW-0198 eurofins-GAB GmbH, Germany GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point   | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|
| CP 10.6.1/01 | Mito, N.  | 2001 | Evaluation of herbicidal activity of pyriproxyfen Company Report No.: NNG-0071 Agricultural Chemicals Research Laboratory, Japan Not GLP, Unpublished | N                          | N                                    | NA   | SUM   |

| Data point   | Author(s)  | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------|--|------|---|----------------------------|--------------------------------------|--|-------|
| CP 10.6.2/01 | Sindermann, A.B. Swerida, R.M. Porch, J.R. Bodle, E.S. Martin K.H. | 2014 | Pyriproxyfen EC Formulation: A Toxicity Test to Determine the Effects of the Test Substance on Seedling Emergence of Ten Species of Plants Company Report No.: NNW-0222 Wildlife International, | N                          | N                                    | NA   | SUM   |
|              |  |      | USA<br>GLP,<br>Unpublished  |                            |                                      |  |       |

| Data point   | Author(s)   | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not  | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|--------------|---|------|--|----------------------------|--------------------------------------|--|-------|
| CP 10.6.2/02 | Sindermann, A.B. Swerida, R.M. Porch, J.R.Krueger, H.O. Martin K.H. | 2014 | Pyriproxyfen EC Formulation: A Toxicity Test to Determine the Effects of the Test Substance on Vegetative Vigor of Ten Species of Plants Company | N                          | N                                    | NA   | SUM   |
|              |   |      | Report No.: NNW-0223 Wildlife International, USA GLP, Unpublished  |                            |                                      |  |       |

| Data point | Author(s) | Year | Title Company Report No. Source (where different from company) GLP or GEP status Published or not   | Vertebrate<br>study<br>Y/N | Data<br>protection<br>claimed<br>Y/N | Justification<br>if data<br>protection is<br>claimed | Owner |
|------------|-----------|------|---|----------------------------|--------------------------------------|--|-------|
| CA 8.7/01  | Umeda, K. | 2001 | Evaluation of insecticidal activity of pyriproxyfen Company Report No.: NNG-0072 Agricultural Chemicals Research Laboratory, Japan Not GLP, Unpublished | N                          | N                                    | NA   | SUM   |
| CA 8.7/02  | Oguri, Y. | 2001 | Evaluation of fungicidal activity of pyriproxyfen Company Report No.: NNG-0073 Agricultural Chemicals Research Laboratory, Japan Not GLP, Unpublished   | N                          | N                                    | NA   | SUM   |