**Template #50-3: Toxicity to bees *(Version [1.6]-[July 2023])***

The following table gives a detailed description of the type of information prompted for by the data entry fields.

| **Line no.** | **Field name** | **Field type**  **Display type** | **Picklist**  **Freetext template** | **Help text** | **Remarks**  **Guidance**  **Cross-reference** |
| --- | --- | --- | --- | --- | --- |
|  | **Administrative data** | **Header 1** |  |  |  |
|  |  | Confidentiality  Display: Basic |  |  |  |
|  | Endpoint | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - toxicity to bees: acute oral - toxicity to bees: acute contact - toxicity to bees: chronic oral - bee larval toxicity - acute - bee larval toxicity - chronic - toxicity to bees: residues on foliage, nectar and pollen - toxicity to bees: cage and tunnel tests - toxicity to bees: field tests - toxicity to bees: sublethal effects (reproduction, homing flight activity) - toxicity to bees, other | From the picklist select the relevant endpoint addressed by this study summary. In some cases there is only one endpoint title, which may be entered automatically depending on the software application.  If multiple study types are covered by the same data entry form, the specific study type should be selected. If none matches, select the more generic endpoint description '<Generic endpoint>, other' (e.g. Skin irritation / corrosion, other) and give an explanation in the adjacent text field. The generic endpoint title reflects the title of the corresponding OECD Harmonised Template (OHT).  Please note: For (Q)SAR studies, if an 'in silico' option does not exist, the generic endpoint title should be selected, normally with no need to fill in the adjacent text field, as '(Q)SAR' needs to be indicated in field 'Type of information' and the model should be described in field 'Justification of non-standard information' or 'Attached justification'. A specific endpoint title may be used, if addressed by the (Q)SAR information, i.e. the model behind has been validated by experimental data addressing this endpoint.  Note: For the purpose of OHTs, an 'endpoint' is defined in the rather broad sense as an observable or measurable inherent property of a chemical substance which may be specified by the relevant regulatory framework as 'information requirement' (e.g. Boiling point, Sub-chronic toxicity: oral, Fish early-life stage toxicity). In a narrower sense, the term '(eco)toxicity endpoint' refers to an outcome or effect observed in a study. | **Guidance for data migration:** The relevant target phrase is selected as triggered by the value of source field 'Test duration type'. As a fallback the generic phrase 'Toxicity to terrestrial arthropods' is selected. Note: The generic phrase is only used for migration, but otherwise deactivated in the picklist. For new entries a generic phrase is provided which consists of the OHT title followed by 'other', i.e. <OHT title>, other. |
|  | Type of information | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - experimental study - experimental study planned - experimental study planned (based on read-across) - (Q)SAR - calculation (if not (Q)SAR) - read-across based on grouping of substances (category approach) - read-across from supporting substance (structural analogue or surrogate) - read-across from similar mixture/product - mixture rules calculation - weight of evidence justification/conclusion - not specified - other: | Select the appropriate type of information, e.g. ' experimental study', ' experimental study planned' or, if alternatives to testing apply, '(Q)SAR', 'read-across ...'. In the case of calculated data, the value 'calculation (if not (Q)SAR)' should only be chosen if the study report does not clearly indicate whether it is based on '(Q)SAR'.  If the information is taken from a handbook or review article, select the relevant item, e.g. ‘experimental study’, if this is provided in the information source. Otherwise select ‘not specified’. Please note: In field ‘Reference type’ the option ‘review article or handbook’ should be selected. In general, the option 'not specified' should be selected if the submitter lacks the knowledge of the type of information. The option 'other:' can be used if another than a pre-defined item applies.  In the case of read-across, follow the instructions related to the relevant legislation, for instance as to whether the (robust) study summary should be entered in a separate data set defined for the read-across (source) substance and referenced in the target substance dataset.  If 'experimental study planned' or 'experimental study planned (based on read-across)' is indicated (in some legislations also defined as 'testing proposal' or 'undertaking of intended submission'), the submitter should include as much information as possible on the planned study in order to support the evaluation of the proposal. Typically, this would include at least the test guideline, information on the test material, the species and the route of administration in the corresponding distinct fields, as appropriate.  Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on whether specific fields should be completed and/or further details should be attached in field 'Attached background material'. |  |
|  | Adequacy of study | List (picklist)  Display: Basic | **Picklist values:** - key study - supporting study - weight of evidence - disregarded due to major methodological deficiencies - other information | Indicate the adequacy of a (robust) study summary in terms of usefulness for hazard/risk assessment purposes depending on the relevant legislation.  Note: This field is only applicable (or active) if neither 'waiving of standard information' nor 'experimental study planned' has been selected in field 'Type of information'.  Explanation:   - key study: In general, a key study is the study that has been identified as most suitable to describe an endpoint from the perspective of quality, completeness and representativity of data.   - supporting study: Any other adequate study that is considered supportive for the key study or key studies.   - weight of evidence: A record that contributes to a weight of evidence justification for the non-submission of a particular (adequate) study. The weight of evidence justification is normally endpoint-related, i.e. based on all available records included in the weight of evidence evaluation. A short reasoning for why a given record is used in this respect can be provided in field 'Detailed justification / remarks'.   - disregarded due to major methodological deficiencies: study that demonstrates a higher concern than the key study/ies, but is not used as key study because of flaws in the methodology or documentation. This phrase should be selected for justifying why a potentially critical result has not been used for the hazard assessment. The lines of argumentation should be provided in field 'Rationale for reliability incl. deficiencies', accompanied by the appropriate reliability score.  - other information: any other non-relevant information which does not need to be flagged specifically as 'disregarded due to major methodological deficiencies'.  Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field. | **Guidance for field condition:** Condition: Field active only if 'Type of information' is not 'experimental study planned' and not ‘experimental study planned (based on read-across)’ and field 'Data waiving' is not populated (except for migrated data) |
|  | Robust study summary | Check box  Display: Basic |  | Set this flag if relevant for the respective regulatory programme or if otherwise useful as filter for printing or exporting records flagged as 'Robust Study Summary' or in combination with 'Adequacy of study'.   Explanation: The term 'Robust Study Summary' is actually used only to describe the technical content of a very detailed summary of an experimental study or of any other relevant information. It is a priori no synonym with the term 'Key study', although a key study should usually be submitted in the form of Robust Study Summary. However, a Robust Summary may also be useful for other adequate studies that are considered supportive of the key study or even for inadequate studies if they can be used for a weight-of-evidence analysis. Also for studies that are flawed, but indicate critical results, Robust Study Summaries highlighting the weaknesses of the studies need to be elaborated.   Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field. |  |
|  | Used for classification | Check box  Display: Basic |  | Set this flag if relevant for the respective regulatory programme or if otherwise useful as filter for printing or exporting records flagged as 'Used for classification'.  Explanation: In some use cases it may be necessary to indicate those records that are used for the classification of that substance, e.g. according to UN GHS. If not relevant, disregard this field.   Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field. |  |
|  | Used for SDS | Check box  Display: Basic |  | Set this flag if relevant for the respective regulatory programme or if otherwise useful as filter for printing or exporting records flagged as 'SDS information'.   Explanation: 'SDS' stands for Safety Data Sheet. In some use cases it may be necessary to indicate those records that are used for the compilation of SDS information. If not relevant, disregard this field.   Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field. |  |
|  | Study period: start date | Date  Display: Basic |  | If applicable indicate the period during which the study was conducted, i.e. start and end date.   Note: independent of the study period, the in-life period (i.e. the phase of a study following treatment in which the test system is alive/growing) may have to be specified for some toxicology endpoints. |  |
|  | End date | Date  Display: Basic |  |  |  |
|  | Remark | Text (255 char.)  Display: Basic |  |  |  |
|  | Reliability | List (picklist)  Display: Basic | **Picklist values:** - 1 (reliable without restriction) - 2 (reliable with restrictions) - 3 (not reliable) - 4 (not assignable) - other: | Enter an appropriate reliability score, according to Klimisch et al. (1997):  1 = reliable without restrictions: “studies or data [...] generated according to generally valid and/or internationally accepted testing guidelines (preferably performed according to GLP) or in which the test parameters documented are based on a specific (national) testing guideline [...] or in which all parameters described are closely related/comparable to a guideline method.”  2 = reliable with restrictions: “studies or data [...] (mostly not performed according to GLP), in which the test parameters documented do not totally comply with the specific testing guideline, but are sufficient to accept the data or in which investigations are described which cannot be subsumed under a testing guideline, but which are nevertheless well documented and scientifically acceptable.”  3 = not reliable: “studies or data [...] in which there were interferences between the measuring system and the test substance or in which organisms/test systems were used which are not relevant in relation to the exposure (e.g. non-physiological pathways of application) or which were carried out or generated according to a method which is not acceptable, the documentation of which is not sufficient for assessment and which is not convincing for an expert judgment.”  4 = not assignable: “studies or data [...] which do not give sufficient experimental details and which are only listed in short abstracts or secondary literature (books, reviews, etc.).”  The 'other:' option may be selected if a different scoring system is used. Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field.  Note: This field is only applicable (or active) if neither 'waiving of standard information' nor 'experimental study planned' has been selected in field 'Type of information'.  Note: The term reliability defines the inherent quality of a test report or publication relating to preferably standardised methodology and the way the method and results are described. More detailed criteria can be selected in field 'Justification'. |  |
|  | Rationale for reliability incl. deficiencies | List sup. (picklist with remarks - 32,000 char.)  Display: Basic | **Picklist values:** - guideline study - [Reliability 1] - comparable to guideline study - [Reliability 1] - test procedure in accordance with national standard methods - [Reliability 1] - test procedure in accordance with generally accepted scientific standards and described in sufficient detail - [Reliability 1] - guideline study without detailed documentation - [Reliability 2] - guideline study with acceptable restrictions - [Reliability 2] - comparable to guideline study with acceptable restrictions - [Reliability 2] - test procedure in accordance with national standard methods with acceptable restrictions - [Reliability 2] - study well documented, meets generally accepted scientific principles, acceptable for assessment - [Reliability 2] - accepted calculation method - [Reliability 2] - data from handbook or collection of data - [Reliability 2] - significant methodological deficiencies - [Reliability 3] - unsuitable test system - [Reliability 3] - abstract - [Reliability 4] - secondary literature - [Reliability 4] - documentation insufficient for assessment - [Reliability 4] - results derived from a valid (Q)SAR model and falling into its applicability domain, with adequate and reliable documentation / justification - [Reliability 1 or 2] - results derived from a valid (Q)SAR model and falling into its applicability domain, with limited documentation / justification - [Reliability 2, 3 or 4] - results derived from a valid (Q)SAR model, but not (completely) falling into its applicability domain, with adequate and reliable documentation / justification - [Reliability 2 or 3] - results derived from a (Q)SAR model, with limited documentation / justification, but validity of model and reliability of prediction considered adequate based on a generally acknowledged source - [Reliability 2 or 3] - results derived from a valid (Q)SAR model, but not (completely) falling into its applicability domain, and documentation / justification is limited - [Reliability 3 or 4] - results derived from a (Q)SAR model, with limited documentation / justification - [Reliability 4] - other: | Select an appropriate standard justification from the picklist, e.g. 'Comparable to guideline study with acceptable restrictions'. Additional explanations (e.g. deficiencies observed) can be entered in the related supplementary text field. Particularly if reliability scores 2 or 3 are assigned, indicate the concrete arguments for defending a study or relevant deficiencies.  For QSAR results (i.e. 'Type of information' is '(Q)SAR') some pre-defined phrases are provided for indicating if the prediction results are considered reliable based on the scientifically validity of the (Q)SAR model used, its applicability to the query substance, and the adequacy of reporting. Please note: If (Q)SAR results are flagged as key study in field 'Adequacy of study', the relevance of the model used for the regulatory endpoint should be documented in the field where the (Q)SAR model is described, i.e. 'Justification for type of information', 'Attached justification' or 'Cross-reference'. | **Guidance for field condition:** Condition: Field active only if 'Type of information' is not 'experimental study planned' and not ‘experimental study planned (based on read-across)’. Condition 1: If 'Type of information' is not '(Q)SAR': - guideline study - [Reliability 1] - comparable to guideline study - [Reliability 1] - test procedure in accordance with national standard methods - [Reliability 1] - test procedure in accordance with generally accepted scientific standards and described in sufficient detail - [Reliability 1] - guideline study without detailed documentation - [Reliability 2] - guideline study with acceptable restrictions - [Reliability 2] - comparable to guideline study with acceptable restrictions - [Reliability 2] - test procedure in accordance with national standard methods with acceptable restrictions - [Reliability 2] - study well documented, meets generally accepted scientific principles, acceptable for assessment - [Reliability 2] - accepted calculation method - [Reliability 2] - data from handbook or collection of data - [Reliability 2] - significant methodological deficiencies - [Reliability 3] - unsuitable test system - [Reliability 3] - abstract - [Reliability 4] - secondary literature - [Reliability 4] - documentation insufficient for assessment - [Reliability 4] Condition 2: If 'Type of information' = '(Q)SAR': - results derived from a valid (Q)SAR model and falling into its applicability domain, with adequate and reliable documentation / justification - [Reliability 1 or 2] - results derived from a valid (Q)SAR model and falling into its applicability domain, with limited documentation / justification - [Reliability 2, 3 or 4] - results derived from a valid (Q)SAR model, but not (completely) falling into its applicability domain, with adequate and reliable documentation / justification - [Reliability 2 or 3] - results derived from a (Q)SAR model, with limited documentation / justification, but validity of model and reliability of prediction considered adequate based on a generally acknowledged source - [Reliability 2 or 3] - results derived from a valid (Q)SAR model, but not (completely) falling into its applicability domain, and documentation / justification is limited - [Reliability 3 or 4] - results derived from a (Q)SAR model, with limited documentation / justification - [Reliability 4] - other: |
|  | Data waiving | List (picklist)  Display: Basic | **Picklist values:** - study technically not feasible - study scientifically not necessary / other information available - exposure considerations - study waived due to provisions of other regulation - other justification | If appropriate, indicate here that the study has been waived, i.e. not performed. Select the basis from the picklist (e.g. 'study technically not feasible' or 'other justification'). Include a more detailed justification in the field 'Justification for data waiving' and, as needed, in field 'Justification for type of information', 'Attached justification' and/or 'Cross-reference'. Please note: the option 'study scientifically not necessary / other information available' covers cases where it can be justified that performance of a specific study prescribed by the relevant legislation is scientifically not necessary because reliable information is provided in other part(s) of the submission document.  The option 'study waived due to provisions of other regulation' can be used for indicating that another, overlapping regulation allows or requires the waiving of a specific information requirement. This should then be detailed in the justification fields.  If waiving is based on several lines of argumentation (e.g. ‘exposure considerations’ and ‘study scientifically not necessary / other information available’), create separate records for each.  Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use data waivers. | **Guidance for field condition:** Condition: Deactivate this field if any of the following fields is populated: 'Type of information', 'Adequacy of study', 'Reliability', 'Rationale for reliability'. |
|  | Justification for data waiving | List multi. (multi-select list with remarks - 32,000 char.)  Display: Basic | **Picklist values:** - a short-term study does not need to be conducted because an appropriate long-term toxicity study on terrestrial organisms is available or proposed - [study scientifically not necessary / other information available] - the study does not need to be conducted because direct and indirect exposure of the soil compartment is unlikely - [exposure considerations] - other: | In addition to the more generic justification selected in the preceding field 'Data waiving', it is highly recommended to provide a detailed justification. To this end you can either select one or multiple specific standard phrase(s) if it/they give an appropriate rationale of the description given in the preceding field 'Data waiving' or 'other:' and enter free text. Additional specific explanations should be provided if the pre-defined phrase(s) do no sufficiently describe the justification.  More details can be provided using the following fields:  - Text field adjacent to this field 'Justification for data waiving' (available after selecting any picklist item in this field);  - Field 'Justification for type of information';  - Field 'Attached justification';  - Cross-reference (for referencing / linking to a justification or information referred to in the justification which is stored in another record, e.g. a record describing physico-chemical properties information used to support a data waiver)  Please note: The pre-defined phrases are not necessarily exhaustive and may not always apply. Consult the guidance documents and waiving options in the relevant regulatory frameworks. If no suitable phrase is available from the picklist, enter a free text justification using the 'other:' option. | **Guidance for field condition:** Condition: Deactivate this field if any of the following fields is populated: 'Type of information', 'Adequacy of study', 'Reliability', 'Rationale for reliability'. |
|  | Justification for type of information | Text template  Display: Basic | **Freetext template:  Option 1 Type 'Waiving of standard information'** JUSTIFICATION FOR DATA WAIVING [Specific explanation in addition to field 'Justification for data waiving'] **Option 2 Type 'Experimental study planned / Testing proposal on vertebrate animals'** TESTING PROPOSAL ON VERTEBRATE ANIMALS [Please provide information for all of the points below. The information should be specific to the endpoint for which testing is proposed. Note that for testing proposals addressing testing on vertebrate animals under the REACH Regulation this document will be published on the ECHA website along with the third party consultation on the testing proposal(s).]  NON-CONFIDENTIAL NAME OF SUBSTANCE: - Name of the substance on which testing is proposed to be carried out - Name of the substance for which the testing proposal will be used [if different from tested substance]  CONSIDERATIONS THAT THE GENERAL ADAPTATION POSSIBILITIES OF ANNEX XI OF THE REACH REGULATION ARE NOT ADEQUATE TO GENERATE THE NECESSARY INFORMATION [please address all points below]: - Available GLP studies - Available non-GLP studies - Historical human/control data - (Q)SAR - In vitro methods - Weight of evidence - Grouping and read-across - Substance-tailored exposure driven testing [if applicable] - Approaches in addition to above [if applicable] - Other reasons [if applicable]  CONSIDERATIONS THAT THE SPECIFIC ADAPTATION POSSIBILITIES OF ANNEXES VI TO X (AND COLUMN 2 THEREOF) OF THE REACH REGULATION ARE NOT ADEQUATE TO GENERATE THE NECESSARY INFORMATION: - [free text]  FURTHER INFORMATION ON TESTING PROPOSAL IN ADDITION TO INFORMATION PROVIDED IN THE MATERIALS AND METHODS SECTION: - Details on study design / methodology proposed [if relevant] **Option 3 Type 'QSAR prediction'** 1. SOFTWARE  2. MODEL (incl. version number)  3. SMILES OR OTHER IDENTIFIERS USED AS INPUT FOR THE MODEL  4. SCIENTIFIC VALIDITY OF THE (Q)SAR MODEL [[Explain how the model fulfils the OECD principles for (Q)SAR model validation. Consider attaching the QMRF and/or QPRF or providing a link] - Defined endpoint: - Unambiguous algorithm: - Defined domain of applicability: - Appropriate measures of goodness-of-fit and robustness and predictivity: - Mechanistic interpretation:  5. APPLICABILITY DOMAIN [Explain how the substance falls within the applicability domain of the model] - Descriptor domain: - Structural domain: - Mechanistic domain: - Similarity with analogues in the training set: - Other considerations (as appropriate):  6. ADEQUACY OF THE RESULT [Explain how the prediction fits the purpose of classification and labelling and/or risk assessment] **Option 4 Type 'Read-across (analogue)'** REPORTING FORMAT FOR THE ANALOGUE APPROACH [Please provide information for all of the points below. Indicate if further information is included as attachment to the same record, or elsewhere in the dataset (insert links in 'Cross-reference' table)]  1. HYPOTHESIS FOR THE ANALOGUE APPROACH [Describe why the read-across can be performed (e.g. common functional group(s), common precursor(s)/breakdown product(s) or common mechanism(s) of action]  2. SOURCE AND TARGET CHEMICAL(S) (INCLUDING INFORMATION ON PURITY AND IMPURITIES) [Provide here, if relevant, additional information to that included in the Test material section of the source and target records]  3. ANALOGUE APPROACH JUSTIFICATION [Summarise here based on available experimental data how these results verify that the read-across is justified]  4. DATA MATRIX **Option 5 Type 'Read-across (category)'** REPORTING FORMAT FOR THE CATEGORY APPROACH [Please provide information for all of the points below addressing endpoint-specific elements that were not already covered by the overall category approach justification made available at the category level. Indicate if further information is included as attachment to the same record, or elsewhere in the dataset (insert links in 'Cross-reference' table)]  1. HYPOTHESIS FOR THE CATEGORY APPROACH (ENDPOINT LEVEL) [Describe why the read-across can be performed]  2. CATEGORY APPROACH JUSTIFICATION (ENDPOINT LEVEL [Summarise here based on available experimental data how these results verify that the read-across is justified] **Option 6 Type 'Weight of Evidence justification'** JUSTIFICATION FOR WEIGHT OF EVIDENCE - Relevance (including coverage) and reliability of each source of information compared with the study normally required for the information requirement. - Weighing of the sources of information (including overall coverage) to reach an overall conclusion for the information requirement. - Assessment of the uncertainty in the conclusion compared with the study normally required for the information requirement. | This field can be used for entering free text. As appropriate, one of the freetext templates can be selected (e.g. Justification for read-across (analogue)) to use pre-defined headers and bulleted elements. Delete/add elements as appropriate.  Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on what should be taken into account when providing justifications or whether specific reporting formats should be used.  Explanations:  Option 1: Type 'Waiving of standard information':  This field should be used for entering any further lines of argumentation, if necessary, in addition to those provided in the field 'Justification for data waiving'.  Option 2: Type 'Experimental study planned / Testing proposal':  Further details can be entered here on the study design / methodology proposed in addition to details given in the distinct fields on test guideline, test material, species, route of administration and other relevant fields.  Option 3: Type 'QSAR prediction':  For describing a (Q)SAR model it is recommended to provide the QMRF as attachment instead of using the free text template.  The QSAR Model Reporting Format (QMRF) is a harmonised template for summarising and reporting key information on QSAR models, including the results of any validation studies. The information is structured according to the OECD validation principles and can be compiled using the QMRF editor application.  The JRC QSAR Model Database is intended to help to identify valid (Q)SARs (e.g. for the purpose of REACH). It provides information on the validity of QSAR models and can be browsed for published QMRFs.  Based on this freetext template details on the QSAR model used can be given, in addition to the information provided in field 'Principles of method if other than guideline'.  Please note: Any information that can be re-used for several study summaries can be entered once and then assigned to the relevant studies using either the 'Attached justification' or 'Cross-reference' feature.  Option 4: Type 'Read-across (analogue)' and Option 5: Type 'Read-across (category)'  This freetext template can be used and modified as appropriate for providing a justification for read-across, particularly if it is endpoint-specific.  Please note: Any information that can be re-used for several study summaries can be entered once and then assigned to the relevant studies using either the 'Attached justification' or 'Cross-reference' feature. |  |
|  | **Attached justification** | **Block of fields (repeatable) Start** |  | The Attached justification feature can be used in case the justification is best provided in form of attached document(s).  Copy this block of fields for attaching more than one file.  Refer to the relevant legislation-specific guidance document as to the recommended use of the Attached justification feature. |  |
|  | Attached justification | Attachment (single)  Display: Basic |  | Upload file by clicking the upload icon. |  |
|  | Reason / purpose | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - data waiving: supporting information - exposure-related information - read-across: supporting information - (Q)SAR model reporting (QMRF) - (Q)SAR prediction reporting (QPRF) - (Q)SAR model and prediction reporting (QMRF/QPRF) - (Q)SAR: supporting information - weight of evidence: supporting information - justification, other: | Indicate the reason for / purpose of the attached document. Select the relevant item from the picklist or, if none applies, select 'justification, other:' and specify. |  |
|  | **Attached justification** | **Block of fields (repeatable) End** |  |  |  |
|  | **Cross-reference** | **Block of fields (repeatable) Start** |  | The cross-reference feature can be used to refer to related information that is provided in another record of the dataset. This can be done either by entering just free text in the 'Remarks' field or by creating a link to the relevant record. The field 'Reason / purpose' allows for selecting a standard reason from the picklist and optionally to add free text explanation in the related supplementary text field.  Refer to the relevant legislation-specific guidance document as to the recommended use of cross-references. |  |
|  | Reason / purpose for cross-reference | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - adverse outcome pathway (AOP) - assessment report - data waiving: supporting information - defined approach - exposure-related information - method used in study - read-across source - (Q)SAR model reporting (QMRF) - read-across: supporting information - reference to other assay used for intermediate effect derivation - reference to other study - reference to same study - weight of evidence source - other: | Select the appropriate reason of the cross-reference, i.e.  - adverse outcome pathway (AOP) (in case the information is related to a key event that is part of an AOP). Consult the AOP wiki at: https://aopwiki.org) and provide the reference in the remarks field  - assessment report (for referring to a record that contains an assessment report as attachment)  - data waiving: supporting information (for referring to a record containing relevant endpoint information that is used to justify a data waiver)  - defined approach for combining with results from another methods (in vitro, in chimico, in silico)   - exposure-related information (for referring to a record containing exposure-related information that is used for instance to justify a data waiver)  - read-across source (for linking to another study summary used for read-across. This can be useful in cases where results are derived from one or several read-across sources and recorded in a separate (target) study summary.)  - read-across supporting information (for linking to another record which contains read-across justification that applies also for the current study summary)  - (Q)SAR model reporting (QMRF) (for referring to a record containing the relevant model description. Note: The (Q)SAR prediction should be reported specifically for each endpoint in the field 'Justification for type of information'.)  - reference to other assay used for intermediate effect derivation (for optional indication in a study summarising 'intermediate effects' if reference is made to the outcome of another assay)  - reference to same study (e.g. if different species were tested and the results recorded in different records),   - reference to other study (e.g. if another study is considered relevant in the interpretation of the test results),   - other: (to be specified). |  |
|  | Related information | Link to endpoint (single)  Display: Basic |  | As appropriate, select the record containing the related information, thus creating a link. | **Cross-reference:** AllSummariesAndRecords |
|  | Remarks | Text (32,768 char.)  Display: Basic |  | This field can be used for including any remarks. |  |
|  | **Cross-reference** | **Block of fields (repeatable) End** |  |  |  |
|  | **Data source** | **Header 1** |  |  |  |
|  | Reference | Link to lit. reference (multiple)  Display: Basic |  | Indicate the bibliographic reference of the study report or publication the study summary is based on. Provide general information such as Title, Author, Year, Bibliographic source, Testing Facility, Report Number, Study number, Report date etc., as requested in the core template for literature search (https://www.oecd.org/ehs/templates/Generic%20elements%20for%20all%20OHTs.zip).   Always enter the primary reference in the first block of fields or sort it to the first position, if there are more than one reference to be cited. Copy this block of fields for specifying any other references related to this record (e.g. report of a preliminary study or other documentation). If results of a study report have been published, indicate the full citation of that publication(s) in addition to the reference of the original study. |  |
|  | Data access | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - data submitter is data owner - data submitter has Letter of Access - data no longer protected - data published - data submitter has permission to refer - not applicable - other: | Select appropriate indication for data access. Enter 'Not applicable' if the summary consists of information that is commonly accessible such as guidance on safe use.  Select 'data submitter has permission to refer' if the information requirement can be covered based on a permission to refer to old data as issued by the relevant regulatory agency. In addition, provide, in the adjacent free-text field, the statement according to instructions you received from the relevant regulatory authority together with the permission to refer. |  |
|  | Data protection claimed | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes - yes, but willing to share - yes, but not willing to share | Indicate as appropriate. Note: 'yes' should be selected only if 'Data submitter is data owner' or 'Data submitter has Letter of Access'. Options 'yes, but willing to share' or 'yes, but not willing to share' may be relevant for specific regulatory programmes where the submitter is requested to indicate whether he is willing to share studies conducted (e.g. with vertebrates).  In the supplementary remarks field, include an explanation as appropriate, i.e. justification for denial of sharing the corresponding study or refer to a document attached that provides justification (e.g. 'for justification see attached document X') |  |
|  | **Materials and methods** | **Header 1** |  |  |  |
|  | **Test guideline** | **Block of fields (repeatable) Start** |  | Indicate according to which test guideline the study was conducted. If no test guideline was explicitly followed, but the methodology used is equivalent or similar to a specific guideline, you can indicate so in the 'Qualifier' subfield preceding the field 'Guideline'.  Copy this block of fields for specifying more than one guideline (e.g. US EPA in addition to OECD guideline). |  |
|  | Qualifier | List (picklist)  Display: Basic | **Picklist values:** - according to guideline - equivalent or similar to guideline - no guideline followed - no guideline available - no guideline required | Select appropriate qualifier, i.e.  - 'according to guideline' (if a given test guideline was followed);  - 'equivalent or similar to guideline' (if no test guideline was explicitly followed, but the methodology is equivalent or similar to a specific guideline);  - 'no guideline followed' (if none of above qualifiers apply. If so, fill in field 'Principles of method if other than guideline');  - 'no guideline available' (if so, fill in field 'Principles of method if other than guideline').  - 'no guideline required' (if so, fill in field 'Principles of method if other than guideline'). |  |
|  | Guideline | List (picklist)  Display: Basic | **Picklist values:** - OECD Guideline 213 (Honeybees, Acute Oral Toxicity Test) - OECD Guideline 214 (Honeybees, Acute Contact Toxicity Test) - OECD Guideline 237 (Honey bee (Apis mellifera) Larval Toxicity Test, Single Exposure) - OECD Guideline 245 (Honey Bee (Apis mellifera L.), Chronic Oral Toxicity Test (10-Day Feeding) - OECD Guideline 246 (Bumblebee, Acute Contact Toxicity Test) - OECD Guideline 247 (Bumblebee, Acute Oral Toxicity Test) - OECD Guidance Document No 75 (Guidance Document on the Honey Bee (Apis mellifera L.) Brood test Under Semi-field Conditions) - OECD Guidance Document No 239 (Guidance Document on Honey Bee Larval Toxicity Test following Repeated Exposure) - OECD Guidance Document No 332 (Guidance document on honey bee (Apis mellifera L.) Homing flight test, using single oral exposure to sublethal doses of test chemical) - EPA OPP 141-1 (Honey Bee Acute Contact Toxicity) - EPA OPP 141-2 (Honey Bee Toxicity of Residues on Foliage) - EPA OPP 141-5 (Field Testing for Pollinators) - EPA OPPTS 850.3020 (Honey Bee Acute Contact Toxicity) - EPA OPPTS 850.3030 (Honey Bee Toxicity of Residues on Foliage) - EPA OPPTS 850.3040 (Field Testing for Pollinators) - EPA OPPTS 885.4380 (Microbial Pesticide, Honey Bee Testing, Tier I) - EPPO PP 1/170 (4) (Side-effects on honeybees) - EU Method C.16 (Honeybees - Acute Oral Toxicity Test) - EU Method C.17 (Honeybees - Acute Contact Toxicity Test) - Method for honeybee brood feeding tests with insect growth-regulating insecticides by Oomen et al. (1992); The Oomen bee brood feeding test – revision of the method to current needs and developments by Luckmann J, Schmitzer S (2019) - A method for a solitary bee (Osmia sp.) first tier acute contact and oral laboratory test: an update by Roessink et al. (2017); Progress on the Osmia acute oral test: findings of the ICCPR non-Apis subgroup solitary bee laboratory testing by Roessink et al. (2019) - Summary of an ICPPR Non-Apis workshop – Subgroup higher tier (bumble bees and solitary bees) with recommendations for a semi-field experimental design by Knäbe et al. (2017); Higher tier bumble bees and solitary bees recommendations for a semi-field experimental design by Knäbe et al. (2019) - Results of 2-Year Ring Testing of a Semifield Study Design to Investigate Potential Impacts of Plant Protection Products on the Solitary Bees Osmia Bicornis and Osmia Cornuta and a Proposal for a Suitable Test Design by Franke et al. (2021) - other: | Select the applicable test guideline, e.g. 'OECD Guideline xxx'. If the test guideline used is not listed, choose 'other:' and specify the test guideline in the related text field. Information on the version and date of the guideline used and/or any other specifics can be entered in the next field 'Version / remarks'.  If no test guideline can be specified, this should be indicated in the preceding field 'Qualifier'. The method used should then be shortly described in the field 'Principles of method if other than guideline', while details can be given in other distinct fields.  Please note: Test guidelines used for the validation of (Q)SAR models should be reported in the description of the relevant model in field 'Justification for type of information' or 'Attached justification'. | **Guidance for field condition:** Condition: Field active only if 'Qualifier' is not 'no guideline ...' |
|  | Version / remarks | Text (2,000 char.)  Display: Basic |  | In this text field, you can enter any remarks as applicable, particularly:  - To include any other title of the test guideline draft used, a subtitle, another version or update number and the year of update (For instance, different titles and/or numbers may exist for a given EU test guideline);  - To indicate if the study was performed prior to the adoption of the test guideline specified;  - To indicate if the methodology used was based on an extension of the test guideline specified;  - To indicate what protocol was followed for methods that allow the optional determination of more than one parameter if this cannot be indicated in a distinct field of the Materials and methods section. | **Guidance for field condition:** Condition: Field active only if 'Qualifier' is not 'no guideline ...' |
|  | Deviations | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes - no - not applicable - not specified | In case a test guideline or other standardised method was used, indicate if there are any deviations. Briefly state relevant deviations in the supplementary remarks field (e.g. 'other test system used', 'different exposure duration'); details should be described in the respective fields of the section MATERIALS AND METHODS. | **Guidance for field condition:** Condition: Field active only if 'Qualifier' is not 'no guideline ...' |
|  | **Test guideline** | **Block of fields (repeatable) End** |  |  |  |
|  | Principles of method if other than guideline | Text template  Display: Basic | **Freetext template:  Option 1 Method of non-guideline study** - Principle of test: - Short description of test conditions: - Parameters analysed / observed: **Option 2 (Q)SAR** - Software tool(s) used including version: - Model(s) used: - Model description: see field 'Justification for non-standard information', 'Attached justification' and/or 'Cross-reference' - Justification of QSAR prediction: see field 'Justification for type of information', 'Attached justification' and/or 'Cross-reference' | If no guideline was followed, include a description of the principles of the test protocol or estimated method used in the study. As appropriate use either of the pre-defined freetext template options for 'Method of non-guideline study' or '(Q)SAR'. Delete / add elements and edit text set in square brackets [...] as appropriate.  For a non-guideline experimental study a high-level freetext template can be used for summarising the principle of test, test conditions and parameters analysed / observed.   If the freetext template for (Q)SAR is selected, indicate the QSAR model(s) or platform including version and the software tool(s) used. Detailed justification of the model and prediction should be provided in field(s) 'Justification for type of information', 'Attached justification' and/or 'Cross-reference' as appropriate.  Details should be entered in appropriate distinct fields of section MATERIALS AND METHODS if available. Also provide a justification for using this method if appropriate. |  |
|  | GLP compliance | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes (incl. QA statement) - yes - no - not specified | Indicate whether the study was conducted following Good Laboratory Practice or not. In case 'yes’ is selected, a Quality Assurance (QA) statement must be provided with the report. You can give an explanation in the supplementary remarks field, e.g. for explaining why GLP was not complied with or for specifying which (national) GLP was followed. |  |
|  | **Test material** | **Header 2** |  |  |  |
|  | Test material information | Link to entity (single)  Display: Basic |  | Select the appropriate Test Material Information (TMI) record. If not available in the repository, create a new one. You may also copy (clone) an existing TMI record, edit it and store it as new TMI.  To change the link to an existing TMI, click the Delete button, then the Link button and proceed as described above.  Depending on the purpose of the reporting or data submission, the information that must be provided may change. As a minimum, the chemical name, identifier and/or CAS number and molecular weight must be provided. | **Cross-reference:** TEST\_MATERIAL\_INFORMATION |
|  | Additional test material information | Link to entity (multiple)  Display: Basic |  | Select additional Test material information record if relevant. For example, in longer terms studies more than one batch of test material can be needed or there may be differences between the labelled and unlabelled test materials. | **Cross-reference:** TEST\_MATERIAL\_INFORMATION |
|  | Specific details on test material used for the study | Text template  Display: Basic | **Freetext template:** SOURCE OF TEST MATERIAL - Source (i.e. manufacturer or supplier) and lot/batch number of test material: - Purity, including information on contaminants, isomers, etc.:  RADIOLABELLING INFORMATION (if applicable) - Radiochemical purity: - Specific activity: - Locations of the label: - Expiration date of radiochemical substance:  STABILITY AND STORAGE CONDITIONS OF TEST MATERIAL - Storage condition of test material: - Stability and homogeneity of the test material in the vehicle/solvent under test conditions (e.g. in the exposure medium) and during storage: - Stability in the medium, i.e. sensitivity of the test material to hydrolysis and/or photolysis: - Solubility and stability of the test material in the solvent/vehicle and the exposure medium: - Reactivity of the test material with the incubation material used (e.g. plastic ware):  TREATMENT OF TEST MATERIAL PRIOR TO TESTING - Treatment of test material prior to testing (e.g. warming, grinding): - Preliminary purification step (if any): - Final concentration of a dissolved solid, stock liquid or gel: - Final preparation of a solid (e.g. stock crystals ground to fine powder using a mortar and pestle):  FORM AS APPLIED IN THE TEST (if different from that of starting material) - Specify the relevant form characteristics if different from those in the starting material, such as state of aggregation, shape of particles or particle size distribution:  INFORMATION ON NANOMATERIALS - Chemical Composition: - Density: - Particle size & distribution: - Specific surface area: - Isoelectric point: - Dissolution (rate):  TYPE OF BIOCIDE/PESTICIDE FORMULATION (if applicable) - Description of the formulation, e.g. formulated product for foliar application; formulated product soil application; solution in organic solvent for soil application; formulated product seed treatment; solution in organic solvent seed treatment:  OTHER SPECIFICS - Other relevant information needed for characterising the tested material, e.g. if radiolabelled, adjustment of pH, osmolality and precipitate in the culture medium to which the test chemical is added: | Use this field for reporting specific details on the test material as used for the study if they differ from the starting material specified under 'Test material information'. This can include information on the pre-defined items, but not all or additional ones may be relevant.  Use freetext template and delete/add elements as appropriate. Enter any details that could be relevant for evaluating this study summary or that are requested by the respective regulatory programme. Consult the programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) thereof.  If applicable, relevant available information on the following items should be given:  SOURCE OF TEST MATERIAL  - Source and lot/batch No. of test material  - Expiration date of the lot/batch  - Purity test date: provide if available  RADIOLABELLING INFORMATION  - Radiochemical purity  - Specific activity  - Locations of the label  - Expiration date of radiochemical substance  STABILITY AND STORAGE CONDITIONS OF TEST MATERIAL  - Storage condition of test material  - Stability under test conditions  - Solubility and stability of the test substance in the solvent/vehicle  - Reactivity of the test substance with the solvent/vehicle or the cell culture medium  TREATMENT OF TEST MATERIAL PRIOR TO TESTING  - Treatment of test material prior to testing (e.g. warming, grinding)  - Preliminary purification step  - Final dilution of a soluble solid, stock liquid, or gel (e.g., neat liquid, stock diluted liquid, or dissolved solid) to final concentration and the solvent(s) used  - Final preparation of a solid (e.g. stock crystals ground to fine powder using a mortar and pestle)  FORM AS APPLIED IN THE TEST (if different from that of starting material)  Specify the relevant form characteristics if different from those in the starting material, such as state of aggregation, shape of particles or particle size distribution.  FORMULATED PRODUCT (for biocides/pesticides)  Description of the formulation, e.g. formulated product for foliar application; formulated product soil application; solution in organic solvent for soil application: formulated product seed treatment; solution in organic solvent seed treatment.  OTHER SPECIFICS  Provide any other relevant information needed for characterising the tested material. |  |
|  | Specific details on test material used for the study (confidential) | Text template  Display: Basic (Confidential) | **Freetext template:** SOURCE OF TEST MATERIAL - Source (i.e. manufacturer or supplier) and lot/batch number of test material: - Purity, including information on contaminants, isomers, etc.:  RADIOLABELLING INFORMATION (if applicable) - Radiochemical purity: - Specific activity: - Locations of the label: - Expiration date of radiochemical substance:  STABILITY AND STORAGE CONDITIONS OF TEST MATERIAL - Storage condition of test material: - Stability and homogeneity of the test material in the vehicle/solvent under test conditions (e.g. in the exposure medium) and during storage: - Stability in the medium, i.e. sensitivity of the test material to hydrolysis and/or photolysis: - Solubility and stability of the test material in the solvent/vehicle and the exposure medium: - Reactivity of the test material with the incubation material used (e.g. plastic ware):  TREATMENT OF TEST MATERIAL PRIOR TO TESTING - Treatment of test material prior to testing (e.g. warming, grinding): - Preliminary purification step (if any): - Final concentration of a dissolved solid, stock liquid or gel: - Final preparation of a solid (e.g. stock crystals ground to fine powder using a mortar and pestle):  FORM AS APPLIED IN THE TEST (if different from that of starting material) - Specify the relevant form characteristics if different from those in the starting material, such as state of aggregation, shape of particles or particle size distribution:  INFORMATION ON NANOMATERIALS - Chemical Composition: - Density: - Particle size & distribution: - Specific surface area: - Isoelectric point: - Dissolution (rate):  TYPE OF BIOCIDE/PESTICIDE FORMULATION (if applicable) - Description of the formulation, e.g. formulated product for foliar application; formulated product soil application; solution in organic solvent for soil application; formulated product seed treatment; solution in organic solvent seed treatment:  OTHER SPECIFICS - Other relevant information needed for characterising the tested material, e.g. if radiolabelled, adjustment of pH, osmolality and precipitate in the culture medium to which the test chemical is added: | Use this field for reporting specific details on the test material as used for the study if they differ from the starting material specified under 'Test material information'. This can include information on the pre-defined items, but not all or additional ones may be relevant.  Use freetext template and delete/add elements as appropriate. Enter any details that could be relevant for evaluating this study summary or that are requested by the respective regulatory programme. Consult the programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) thereof.  If applicable, relevant available information on the following items should be given:  SOURCE OF TEST MATERIAL  - Source and lot/batch No. of test material  - Expiration date of the lot/batch  - Purity test date: provide if available  RADIOLABELLING INFORMATION  - Radiochemical purity  - Specific activity  - Locations of the label  - Expiration date of radiochemical substance  STABILITY AND STORAGE CONDITIONS OF TEST MATERIAL  - Storage condition of test material  - Stability under test conditions  - Solubility and stability of the test substance in the solvent/vehicle  - Reactivity of the test substance with the solvent/vehicle or the cell culture medium  TREATMENT OF TEST MATERIAL PRIOR TO TESTING  - Treatment of test material prior to testing (e.g. warming, grinding)  - Preliminary purification step  - Final dilution of a soluble solid, stock liquid, or gel (e.g., neat liquid, stock diluted liquid, or dissolved solid) to final concentration and the solvent(s) used  - Final preparation of a solid (e.g. stock crystals ground to fine powder using a mortar and pestle)  FORM AS APPLIED IN THE TEST (if different from that of starting material)  Specify the relevant form characteristics if different from those in the starting material, such as state of aggregation, shape of particles or particle size distribution.  FORMULATED PRODUCT (for biocides/pesticides)  Description of the formulation, e.g. formulated product for foliar application; formulated product soil application; solution in organic solvent for soil application: formulated product seed treatment; solution in organic solvent seed treatment.  OTHER SPECIFICS  Provide any other relevant information needed for characterising the tested material. |  |
|  | **Sampling and analysis** | **Header 2** |  |  |  |
|  | Analytical monitoring | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes - no - not specified - not required | Indicate whether test substance was monitored in the test solutions or suspensions.  For robust study summaries or as requested by the regulatory programme, provide further details on sampling and analytical methods in the corresponding freetext fields. |  |
|  | Details on sampling | Text template  Display: Detailed | **Freetext template:** - Concentrations:   - Sampling method:   - Sample storage conditions before analysis: | If the amount of test material exposed to the organisms was monitored, enter details on sampling. Use freetext template as appropriate and delete/add elements as appropriate.  Note: Indicate which concentrations were measured if not all. As applicable, provide information for soil, stock and/or spray solution. |  |
|  | Details on analytical methods | Text template  Display: Detailed | **Freetext template:** DETAILS ON PRETREATMENT  - Centrifugation:   - Filtration:   - Digestion (acid used, method: e.g. micro-oven):   - Extraction (solvent used, method: e.g. liquid-liquid, SPE; solid/liquid by soxhlet or ASE):   - Clean up method:e.g. chemical used for chemistry method (Cu, Hg, ...) or phase and solvent used for SPE method:   - Derivatisation method if used:   - Concentration (method):     IDENTIFICATION AND QUANTIFICATION OF TEST SUBSTANCE/PRODUCT  - Separation method (e.g. HPLC, GC):   - Conditions (column, mobile phase, etc.):   - Detection method (e.g. ECD, UV, MS, ICP-AES, ICP-MS):   - Detection limits (LOD, LOQ) (indicate method of determination/calculation):   - Reproducibility in % (indicate method of evaluation; should be given for stated concentration levels):   - Linearity range:   - Internal or external calibration:   - Extraction recovery (indicate if results are corrected or not for recoveries):   - Method of confirmation of identity of measured compound: | If the amount of test material exposed to the organisms was monitored, enter any details on the analytical methods used. Use freetext template and delete/add elements as appropriate. |  |
|  | **Test substrate** | **Header 2** |  |  |  |
|  | Application method | List (picklist)  Display: Basic | **Picklist values:** - contact - oral - spray - seed treatment - granular application - incorporation into the soil - other: - not specified | Select the method of application as appropriate. If not available from the picklist, select 'other:' and specify. |  |
|  | Application rate | Numeric range (decimal with picklist)  Display: Basic | **Lower numeric field [xx]:** - > - >= - ca. **Upper numeric field [xx]:** - < - <= - ca. **Picklist values:** - mg/ha - g/ha - kg/ha - L/100 kg - L/ha - L/kg - L/m² - L/m³ - L/ton seed - kg seeds/ha - kg seeds/m² - number of seeds/ha - number of seeds/m² - mg/100 seeds - kg/100 seeds - g/ton seed - other: | In case the application is done under field/semi-field conditions, indicate the application rate. |  |
|  | Vehicle | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes - no - not specified | Indicate whether vehicle was used to emulsify or mix the experimental test material to enhance its solubility. If yes, specify in field 'Details on preparation and application of test substrate'. |  |
|  | Details on preparation and application of test substrate | Text template  Display: Detailed | **Freetext template:  Option 1 Contact study** - Method of test material application: [single topical dose/whole body exposure to impregnated dust/other]  - Body part:   - Volume of test solution applied:   - Controls:   - Chemical name of vehicle (organic solvent, emulsifier or dispersant):   - Concentration of vehicle in test medium (stock solution and final test solution):   - Evaporation of vehicle before use: **Option 2 Oral study** - Details of food/water source (e.g. diet composition): - Method of feeding during study: - Controls: - Chemical name of vehicle (organic solvent, emulsifier or dispersant): - Concentration of vehicle in test medium (stock solution and final test solution): - Evaporation of vehicle before use: **Option 3 Spray application** - Spray deposition (if applicable): - Information on the spraying equipment used (e.g. type of sprayer, nozzle, spray pressure): - Calibration of the spraying equipment: - Crop: - Controls: - Chemical name of vehicle (organic solvent, emulsifier or dispersant): - Concentration of vehicle in test medium (stock solution and final test solution): - Evaporation of vehicle before use: - Volume of the test solution applied - Duration of the exposure period: - Duration of the monitoring phase: | Depending on the type of study, select appropriate freetext template (e.g. Honeybees: contact study) and delete/add elements as appropriate. Enter any details that could be relevant for evaluating this study summary or that are requested by the respective regulatory programme. Consult the programme-specific guidance (e.g. OECD HPVC, Pesticides NAFTA or EU REACH) thereof. |  |
|  | **Test organisms** | **Header 2** |  |  |  |
|  | Test organisms (species) | List (picklist)  Display: Basic | **Picklist values:** - Apis mellifera - [Hymenoptera (honeybees)] - Bombus impatiens - [Hymenoptera (bumblebee)] - Bombus sp. - [Hymenoptera (bumblebee)] - Bombus terrestris - [Hymenoptera (bumblebee)] - Osmia bicornis - [Hymenoptera (Red mason bee)] - Osmia cornuta - [Hymenoptera (European orchard bee)] - Osmia sp. - [Hymenoptera (solitary mason bee)] - Megachile rotundata - [Hymenoptera (solitary leaf-cutting bee)] - Nomia melanderi - [Hymenoptera (solitary bee)] - other: | Select species from picklist. If not available, select 'other' and enter name of organism (species). |  |
|  | Animal group | List (picklist)  Display: Basic | **Picklist values:** - Hymenoptera - other: | Indicate the animal group. Helpful for searching purposes. |  |
|  | Details on test organisms | Text template  Display: Detailed | **Freetext template:** TEST ORGANISM - Common name: - Sub-species - Source: - Supplier: - Taxonomic confirmation: [yes / no] - By whom? - Age at test initiation (mean and range, SD): - Colony age (days/weeks): - Information on colonies used for collection of test bees (including health certificate, any adult disease, any pre-treatment): - Stage at test initiation: - Weight at test initiation (mean and range, SD): - Date of collection: - Collection method: - Cultural background: - Disease free: [yes / no] - Kept according to standard practices: [yes / no] - Health condition of the hive: - Anaesthetics used: [yes / no] - Kept free from exposure to pesticides: [yes / no] - Timepoint (in hours) when the test organisms were placed on the experimental units after application of the test substance (for volatile substances): - Role in pollination:   ACCLIMATION   - Acclimation period:   - Acclimation conditions (same as test or not):   - Feeding including food and water sources:   - Health during acclimation (any mortality observed):   RATIONALE FOR SELECTION OF SPECIES (if other than requested by test guideline): | Enter any details that could be relevant for evaluating this study summary. Use freetext template and delete/add elements as appropriate. As an option you may include an excerpt from the study report. |  |
|  | **Study design** | **Header 2** |  |  |  |
|  | Study type | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - laboratory study - semi-field study - field study - other: | Indicate the study type, i.e. laboratory study, semi-field study (mimicking a near-natural environment with ambient climatic conditions) or field study (using natural populations). |  |
|  | Limit test | List (picklist)  Display: Basic | **Picklist values:** - yes - no | Indicate if the experiment was a limit test. |  |
|  | Total exposure duration | Numeric (decimal including unit)  Display: Basic | **Unit [xx]:** - min - h - d - wk - mo | Enter numeric value. |  |
|  | Remarks | Text (255 char.)  Display: Basic |  | Enter any remarks related to the total exposure duration. |  |
|  | Post exposure observation period | Text (2,000 char.)  Display: Detailed |  | Indicate the post-observation period (with unit) if appropriate. |  |
|  | **Test conditions** | **Header 2** |  |  |  |
|  | Test temperature | Text (2,000 char.)  Display: Detailed |  | Indicate test temperature values measured in the treatment and control vessels during test. Include range, mean, standard deviation and unit. As appropriate state the location and type of measurement (e.g. continuous monitoring). As applicable indicate the life-stage in parentheses if different temperatures were used e.g. in case of predator and parasite studies. Example: 20+/-1°C (adults), 25+/-1.5°C (larval exposure), 18+/-1°C (pupal development), 25+/-1°C (fecundity).  Alternatively refer to table (e.g. 'see table no. 2') if the test conditions are presented in tabular form in the rich text editor field. |  |
|  | Humidity | Text (2,000 char.)  Display: Detailed |  | Indicate the relative humidity of the experimental room during the test measured in the treatment and control vessels. Include range, mean, standard deviation and unit. As applicable indicate the life-stage in parentheses if different humidities were used e.g. in case of predator and parasite studies.  Alternatively refer to table (e.g. 'see table no. 2') if the test conditions are presented in tabular form in the rich text editor field. |  |
|  | Photoperiod and lighting | Text (2,000 char.)  Display: Detailed |  | Indicate the photoperiod and lighting intensity and sources in the experimental room during the test measured in the treatment and control vessels. Include range, mean, standard deviation and unit. As applicable, indicate the life-stage in parentheses if different lighting conditions were used e.g. in case of predator and parasite studies.  Alternatively refer to table (e.g. 'see table no. 2') if the test conditions are presented in tabular form in the rich text editor field. |  |
|  | Number of replicates | Text (2,000 char.)  Display: Basic |  | Indicate the number of organisms per treatment container/unit, the number of replicates per treatment group and the number of replicates per control group. |  |
|  | Test system/structure | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - tunnel - tent - cages - well plate/microplate - other: | Indicate the type of structure in which the bees were kept during the exposure phase. |  |
|  | Date of the test (beginning) | Date  Display: Basic |  | Enter the date of the beginning of the test. | **Guidance for field condition:** Add dynamic content rule, keeping this field hidden unless the value “toxicity to bees: field tests” is selected in the field “Endpoint”. |
|  | Date of the test (end) | Date  Display: Basic |  | Enter the date of the end of the test. | **Guidance for field condition:** Add dynamic content rule, keeping this field hidden unless the value “toxicity to bees: field tests” is selected in the field “Endpoint”. |
|  | Place of the test | Text (2,000 char.)  Display: Basic |  | Enter the place of the test as applicable (e.g. ZIP code, city and country). | **Guidance for field condition:** Add dynamic content rule, keeping this field hidden unless the value “toxicity to bees: field tests” is selected in the field “Endpoint”. |
|  | GPS coordinates | Text (255 char.)  Display: Basic |  | Provide the GPS coordinates as applicable. Use any of the following units and formats to specify the latitude and longitude:  - sexagesimal degree (degrees, minutes, and seconds): e.g. 50° 26′ 46″ N 80° 58′ 56″ W  - degrees and decimal minutes: e.g. 50° 26.767′ N 80° 58.933′ W  - decimal degrees: e.g. 50.446° N 80.982° W | **Guidance for field condition:** Add dynamic content rule, keeping this field hidden unless the value “toxicity to bees: field tests” is selected in the field “Endpoint”. |
|  | RFID tag information and performance | Text (2,000 char.)  Display: Basic |  | Provide information on the radio-frequency identification (RFID) tagging technology, such as supplier and performance of the RFID system. | **Guidance for field condition:** Add dynamic content rule, keeping this field hidden unless the value “toxicity to bees: field tests” is selected in the field “Endpoint”. |
|  | Details on test conditions | Text template  Display: Detailed | **Freetext template:** TEST SYSTEM - Test container / cage / well-plates (type, material, size, feeding device): - Details of emergence and fecundity chambers: - No. of replicates per vehicle control: - Description of droplet-applicator: - Number of bees labelled and exposed: - Different test containers used for assessments of mortality and reproductive performance: yes/no   CHEMICAL HISTORY - Pesticide use history or pharmaceutical use history at the hive/nuclei - Pesticide use history at the collection site: - Description of usual agricultural practices: - Irrigation: - Crop rotation (field studies):  OTHER TEST CONDITIONS - Photoperiod: - Light intensity:  OTHER ENVIROMENTAL CONDITIONS - Meteorological data/ other circumstances that could impact the quality or integrity of the data (i.e., rainfall events):   TEST CONCENTRATIONS  - Range finding study: - Test concentrations:   EGG CULTURE CONDITIONS:  INCUBATION CONDITIONS (if honeybee larval test) - Temperature (mean, standard deviation, minimum, maximum): - Relative humidity:   EFFECT PARAMETERS MEASURED (with observation intervals if applicable):   FOOD CONSUMPTION (if oral study) - Amount of treated diet consumed per group:  VEHICLE CONTROL PERFORMED: yes/no  HOMING FLIGHT TEST - Recording RFID system used for the homing flight: - The overall RFID reading rate calculated before the test and before each test run: - Landscape type (e.g. agricultural, sub-urban area): - Description of the landscape and the surrounding areas: - Map depicting land cover 1 km around the colonies with respect to blooming plants (e.g. crops, Robinia pseudoacacia, Castanea sativa) provided in the section “Overall remarks, attachments”: yes/no  - Number of test runs:  - Details on coloured powder used (name, provider, physical nature, chemical identification, relevant physical-chemical properties): - Number of foragers captured before colouring: - Number of coloured bees recaptured after the first release: - Number of bees labelled and released a second time per treatment after exposure phase: - Number and percentage of dead bees per treatment and test run after exposure phase and before release: - Number of bees that lost their tags per test run after exposure phase and before release: - UIDs of the bees released (dead bees or bees that lost their tags excluded) for each treatment and test run: - Start and end time (hours and minutes) of the feeding phase ad libitum: - Start and end time (hours and minutes) of the starvation phase: - Start and end time (hours and minutes) of the exposure phase: - Diet consumption checked every 30 mins in the laboratory during the exposure phase: yes/no - Time points of RFID recording: - Time (hours and minutes) of release in the field and the time point of the 24-hour recording: - RFID data for each test run: - Temperature and relative humidity conditions during the labelling and exposure phase in the laboratory: - Weather conditions during the release phase: - Climatic conditions during the 24-hour period after release (data per hour): | Enter any details that could be relevant for evaluating this study summary or that are requested by the respective regulatory programme. Consult the programme-specific guidance (e.g. OECD HPVC, Pesticides NAFTA or EU REACH) thereof. You can delete and add elements as appropriate. |  |
|  | Nominal and measured concentrations | Text (2,000 char.)  Display: Detailed |  | List nominal and, if available, measured test concentrations used in the study, or, if contact or oral study with bees, the nominal and measured doses applied. As appropriate tabulate nominal vs. measured concentrations in the rich text field 'Any other information on results incl. tables'. Upload predefined or other appropriate table(s) if any and tailor it/them to your needs. Use table numbers in the sequence in which you refer to them in the Remarks text (e.g. '... see Table 1').  Note: Specific tables may be required. Consult the programme-specific guidance (e.g. OECD HPVC, Pesticides NAFTA or EU REACH) thereof. |  |
|  | Reference substance (positive control) | List sup. (picklist with remarks)  Display: Detailed | **Picklist values:** - yes - no - not specified | Indicate if a positive control was tested, i.e. a reference substance with known toxicity. If yes, include the concentrations and the date of last reference test (if not conducted in parallel with the current substance test) in the supplementary remarks field.   The selection of the positive control should also be justified (e.g. positive control indicated by the test guideline).   Indicate the identity of the toxic reference substance(s) in the field below.   You can provide results on the positive control in the field “Any other information on results incl. tables”. |  |
|  | Identity of the reference substance (positive control) | Link to entity (multiple)  Display: Basic |  | Indicate the identity of the toxic reference considered in the study. | **Cross-reference:** REFERENCE\_SUBSTANCE |
|  | **Any other information on materials and methods incl. tables** | **Header 2** |  |  |  |
|  |  | Text (rich-text area)  Display: Basic |  | Include information on the colony assessment at different times during the experiment, e.g., pre-exposure and post-exposure. This is particularly relevant for field and semi-field studies.   In this field, you can also enter any information on materials and methods, for which no distinct field is available, or transfer free text from other databases. You can also open a rich text editor and create formatted text and tables or insert and edit any excerpt from a word processing or spreadsheet document, provided it was converted to the HTML format. You can also upload any htm or html document.  Note: One rich text editor field each is provided for the MATERIALS AND METHODS and RESULTS section. In addition the fields 'Overall remarks' and 'Executive summary' allow rich text entry. |  |
|  | **Results and discussion** | **Header 1** |  |  |  |
|  | **Effect concentrations** | **Block of fields (repeatable) Start** |  | Report the relevant effect levels (e.g. EC50, LC50 and/or other). Repeat this block of fields for entering more than one effect level if necessary. |  |
|  | Key result | Check box  Display: Basic |  | Set this flag for identifying the key information which is of potential relevance for hazard/risk assessment or classification purpose.  Consult any programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) on how to use this field. |  |
|  | Duration | Numeric (decimal including unit)  Display: Basic | **Unit [xx]:** - min - h - d - wk | Enter numeric value. |  |
|  | Dose descriptor | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - ED10 - ED50 - LD10 - LD50 - LOED - 10-d LDD50 - TRT-LDD50 - NOAEL - NOED - other: | Indicate the derived dose descriptor, i.e. the exposure level that corresponds to a quantified level of effects. |  |
|  | Effect conc. | Numeric range (decimal with picklist)  Display: Basic | **Lower numeric field [xx]:** - > - >= - ca. **Upper numeric field [xx]:** - < - <= - ca. **Picklist values:** - mg/kg bw - mg/kg diet - ppm - µg per larva - µg per larva per day - µg per larva per developmental period - µg/bee - µg/bee per day - microbial active substances - cells per larva - cells per larva per day - cells per larva per developmental period - cells/L - cells/bee - cells/bee per day - cells/kg bw - cells/kg diet - CFU per larva - CFU per larva per day - CFU per larva per developmental period - CFU/L - CFU/bee - CFU/bee per day - CFU/kg bw - CFU/kg diet - ITU per larva - ITU per larva per day - ITU per larva per developmental period - ITU/L - ITU/bee - ITU/bee per day - ITU/kg bw - ITU/kg diet - IU per larva - IU per larva per day - IU per larva per developmental period - IU/L - IU/bee - IU/bee per day - IU/kg bw - IU/kg diet - OB per larva - OB per larva per day - OB per larva per developmental period - OB/L - OB/bee - OB/bee per day - OB/kg bw - OB/kg diet - spores per larva - spores per larva per day - spores per larva per developmental period - spores/L - spores/bee - spores/bee per day - spores/kg bw - spores/kg diet - other: | Enter a single numeric value in the first numeric field if you select no qualifier or '>', '>=' or 'ca.'. Use the second numeric field if the qualifier is '<' or '<='. For a range use both numeric fields together with the appropriate qualifier(s) if applicable.  The following units should only be used in the case of microbial active substances:  - cells   - CFU (colony-forming unit)  - ITU (International Toxic Unit)  - IU (International Unit)  - OB (occlusion bodies)  - spores |  |
|  | 95% CI | Numeric range (decimal)  Display: Basic | **Lower numeric field [xx]:** - > - >= - ca. **Upper numeric field [xx]:** - < - <= - ca. | For robust study summaries or as requested by the regulatory programme, provide the 95% confidence limits if relevant.  Enter a single numeric value in the first numeric field if you select no qualifier or '>', '>=' or 'ca.'. Use the second numeric field if the qualifier is '<' or '<='. For a range use both numeric fields together with the appropriate qualifier(s) if applicable. |  |
|  | Nominal / measured | List (picklist)  Display: Basic | **Picklist values:** - nominal - meas. (initial) - meas. (geom. mean) - meas. (arithm. mean) - meas. (TWA) - meas. (not specified) - acid equivalent - estimated - not specified | Indicate whether the effect concentration is based on nominal, measured (initial / geometric mean / arithmetic mean), measured (time weighted average = TWA), measured (not specified), acid equivalent or estimated. Select 'not specified' if not known. |  |
|  | Conc. based on | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - test mat. - test mat. (total fraction) - test mat. (dissolved fraction) - act. ingr. - act. ingr. (total fraction) - act. ingr. (dissolved fraction) - element - element (total fraction) - element (dissolved fraction) - other: - not specified | Indicate whether the concentration is based on the test material (test mat.), active ingredient (act. ingr.) or element. As appropriate the measured / addressed fraction can be specified for either of these entities by selecting the relevant item, e.g. 'element (dissolved fraction)' or 'test mat. (total fraction)'. Further information can be given in the supplementary remarks field, e.g. for specifying the type of fraction if it is not clear per se from the test material specification.  Select 'not specified' if the effect concentration type is not known. |  |
|  | Slope of the curve | Text (2,000 char.)  Display: Basic |  | Indicate the slope of the concentration-response curve. This is relevant information for the further risk assessment of bees. |  |
|  | Life stage | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - egg - larva - pupa - adult - other: | Specify the life stage of the test organism related to the reported result. |  |
|  | Basis for effect | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - mortality - fecundity - fertility - winter success - emergence rate - brood development - morphology - behavioural abnormalities - infectivity - pathogenicity - homing success - foraging activity - other: - not specified | Select effect parameter such as mortality, which the effect concentration relates to. As appropriate include further details in the supplementary remarks field.  Any other types of effects can be described using the option “other:”, or described in the field “Details on results”.   For example, behavioural observations such as moribund bees, bees with cramps, etc can be considered symptoms of overall toxicity, and are not normally considered for the basis of effects.   Brood development refers mainly to effects observed in brood termination rate, which is the main objective of brood developmental studies. Further information that can also be of help for the evaluation include e.g. brood index, brood compensation rate. These should be reported using graphs under the section “Overall remarks, attachments”.  Colony conditions may give an indication of the reliability of the results. Information such as number of bees, presence of queen, the amount of brood, food provisions, etc. can give information to evaluate the colony strength and this can be conducted in line with the Liebefeld assessment and to be reported under “Any other information on materials and methods incl. tables”.  Noting that reproduction is the functional capacity, the common measurable endpoints such as fecundity and fertility can be directly reported by selecting the entry in the picklist. However, other endpoints such as sperm performance, queen oviposition, hibernation success, number of sexuals, colony foundation success etc, can also be reported.   The basis for effects called ‘homing success’ covers both multiple physiological and cognitive functions that are involved in homing ability under field conditions (e.g. navigation, memory, flight muscle contraction and energetic metabolism). The measurable parameter would be homing rate %. |  |
|  | Remarks on result | List sup. (picklist with remarks - 2,000 char.)  Display: Basic | **Picklist values:** - not determinable - not determinable because of methodological limitations - not measured/tested - other: | This field can be used for:  - giving a qualitative description of results in addition to or if no numeric value(s) were derived;  - giving a pre-defined reason why no numeric value is provided, e.g. by selecting 'not determinable' and entering free text explanation in the supplementary remarks field; or  - entering any additional information on the effect level by selecting 'other:'  Note: Where a test was done, but no value could be achieved based on the method and boundaries used it is recommended to report the upper or lower value with relevant qualifier, e.g. EC50 >10 mg/L (if this was the highest concentration tested). An additional explanation should be given in this field, e.g. 'not determinable because of methodological limitations' plus free text, e.g. 'highest concentration tested'. |  |
|  | **Effect concentrations** | **Block of fields (repeatable) End** |  |  |  |
|  | Details on results | Text template  Display: Detailed | **Freetext template:** - For details on cumulative mortality see Table no. #. - In case of mortality correction, indicate how the correction was made (e.g. following Abbott’s formula):  - Morphological abnormalities:   - Behavioural abnormalities:   - Rejection of test dose:   - Rate of consumption of diet in treated and untreated groups:   - Presence of uneaten food at test termination:   - Other biological observations:  - Consumption of feeding solution at each observation time for all treatments tested: - Mortality (number and percentage of bees considered dead) at each observation time for all treatments tested: - Anti-feeding effects: | Briefly summarise relevant observations and any dose response relationship. Depending on the type of study, you can delete/add elements as appropriate.  Include the following information, for bees as non-target organisms:   Lower tier - LD50 and NOED values and potentially differentiate between the types of test (i.e. acute oral, acute contact, chronic and life stage (adult / larvae), the species)).  Higher tier –indicate the major effects, e.g. mortality, , brood development etc,. Where relevant, the residue measurements/pollen characterisation should be specified to guarantee the proper exposure.  In the mortality assessment the insects should be classed as being live, affected, moribunds, dead and/or not seen. If applicable, it should also be described how mortality was defined, with respect to e.g. number of animals escaped and number of animals that have died.   Include table(s) with raw data in the rich text field 'Any other information on results incl. tables'. Upload predefined or other appropriate table(s) if available and tailor it/them to your needs. Use table numbers in the sequence in which you refer to them in the text (e.g. '... see Table 1').  Note: Specific tables may be required. Consult the programme-specific guidance (e.g. OECD HPVC, Pesticides NAFTA or EU REACH) thereof. |  |
|  | Results with reference substance (positive control) | Text template  Display: Detailed | **Freetext template:** - Results with reference substance valid?  - Relevant effect levels:   - Other: | If reference substance(s) was/were tested, indicate whether the results with it/them are valid and provide relevant effect levels and other relevant information, for example whether the results are in line with those indicated in the test guideline.  Use freetext template and delete/add elements as appropriate. |  |
|  | Reported statistics and error estimates | Text (2,000 char.)  Display: Detailed |  | Indicate the parameters analysed, the statistical method used and the statistical test performed. If probit analysis was used, indicate the intercept. As appropriate state any relevant error estimates associated with the determination of concentration-response relationship. Include the results of the goodness-of-fit.   Further information on the results of statistical analyses can be provided in the field “Any other information on results incl. tables”. |  |
|  | **Any other information on results incl. tables** | **Header 2** |  |  |  |
|  |  | Text (rich-text area)  Display: Basic |  | In this field, you can enter any other remarks on results. You can also open a rich text editor and create formatted text and tables or insert and edit any excerpt from a word processing or spreadsheet document, provided it was converted to the HTML format.  Note: One rich text editor field each is provided for the MATERIALS AND METHODS and RESULTS section. In addition the fields 'Overall remarks' and 'Executive summary' allow rich text entry. |  |
|  | **Overall remarks, attachments** | **Header 1** |  |  |  |
|  | Overall remarks | Text (rich-text area)  Display: Basic |  | In this field, you can enter any overall remarks or transfer free text from other databases. You can also open a rich text editor and create formatted text and tables or insert and edit any excerpt from a word processing or spreadsheet document, provided it was converted to the HTML format. You can also upload any htm or html document.  Note: One rich text editor field each is provided for the MATERIALS AND METHODS and RESULTS section. In addition the fields 'Overall remarks' and 'Executive summary' allow rich text entry. |  |
|  | **Attachments** | **Block of fields (repeatable) Start** |  | Attach any background document that cannot be inserted in any rich text editor field, particularly image files (e.g. an image of a structural formula).  Copy this block of fields for attaching more than one file. |  |
|  | Type | List (picklist)  Display: Basic | **Picklist values:** - full study report - illustration (picture/graph) - other: | Specify the type of attachment inserted, for example the 'full study report'. |  |
|  | Attached (confidential) document | Attachment (single)  Display: Basic (Confidential) |  | An electronic copy of the full study report or other documents can be attached as Word, pdf or other file types. |  |
|  | Attached (sanitised) documents for publication | Attachment (single)  Display: Basic |  | An electronic copy of a public (non-confidential) version of the full study report or other relevant documents can be attached. This attachment should be sanitised if needed. |  |
|  | Remarks | Text (255 char.)  Display: Basic |  | As appropriate, include remarks, e.g. a short description of the content of the attached document if the file name is not self-explanatory. |  |
|  | **Attachments** | **Block of fields (repeatable) End** |  |  |  |
|  | **Applicant's summary and conclusion** | **Header 1** |  |  |  |
|  | Validity criteria fulfilled | List sup. (picklist with remarks)  Display: Basic | **Picklist values:** - yes - no - not specified - not applicable | State whether validity criteria in the test guideline have been fulfilled or not. Use supplementary remarks field to state the criteria and supporting information.  Clearly indicate if the criteria used are not consistent with those given by the test guideline. If so, give justification in field 'Rationale for reliability incl. deficiencies' as to why this study summary is considered reliable. |  |
|  | Conclusions | Text (32,768 char.)  Display: Basic |  | Enter any conclusions if applicable in addition to the information given in fields 'Key results' and 'Interpretation of results' (if any). |  |
|  | Executive summary | Text (rich-text area)  Display: Basic |  | If relevant for the respective regulatory programme, briefly summarise the relevant aspects of the study including the conclusions reached. If a specific format is prescribed, copy it from the corresponding document or upload it if provided as htm or html document.  Consult the programme-specific guidance (e.g. OECD Programme, Pesticides NAFTA or EU REACH) thereof. |  |