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Reporting data on pesticide residues in food and feed according to Regulation (EC) No 396/2005 (2017 data collection)

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Abstract

According to Regulation (EC) No 396/2005 on maximum residue levels of pesticides in or on food and feed, Member States have to monitor pesticide residue levels in food samples and submit the monitoring results to EFSA and the European Commission. The Standard Sample Description (SSD, version 1) is the data model used for reporting the data on analytical measurements of chemical substances occurring in food, feed and water to EFSA. This document is a consolidated version of the past 3 years' guidance defining the appropriate SSD codes to describe the samples and the analytical results and it gives directions for the reporting of the pesticide residues monitoring data starting with the data generated in 2017 onwards. These provisions take into account the experience of both the previous reporting seasons and the new legislation applicable in 2017.

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Summary

Regulation (EC) No 396/2005 on maximum residue levels (MRLs) of pesticides in or on food and feed of plant and animal origin requires that Member States carry out official controls on pesticide residues in food. The results of the analysis have to be submitted to European Food Safety Authority (EFSA) and the European Commission. According to Article 32 of this regulation, EFSA is responsible for drawing up a Report on Pesticide Residues on the basis of the monitoring results provided by the reporting countries.

In 2009, the Standard Sample Description (SSD) for food and feed was developed which is a standardised data model for reporting of data on analytical measurements of chemical substances occurring in food, feed and water. The SSD contains the data elements describing characteristics of samples and analytical results, controlled terminologies and validation rules to ensure compatibility of data from different data providers.

In the past years, the guidance document describing the SSD data elements and the data coding was progressively and thoroughly revised on a yearly basis; the present document is a consolidated version of the past 3 years' guidance defining the appropriate SSD codes to describe the samples and the analytical results and it give directions for the reporting of the pesticide residues monitoring data starting with the data generated in 2017 onwards., The current document not only replaces the previous Guidance (EFSA, 2017) but also the ones published in 2016 and 2015 (EFSA, 2015a, 2016).

In particular, the new provisions, which are applicable starting from the 2017 monitoring data coding, concern the following data elements:

- Sampling date (sampM), (sampD): the reporting of the two SSD data elements 'sampM' and 'sampD' becomes mandatory along with the (already) mandatory reporting of the sampling year.
- Free text data elements 'paramText', 'prodCom' and 'anMethText': these data elements are no longer reportable starting with the 2017 data collection.
- Product codes (prodCode): new food codes ('prodCodes' in MATRIX catalogue) for the reporting of specific food (e.g. food tested in the frame of Regulation (EC) No 669/2009 on import controls) have been introduced (e.g. chilli pepper and pitahaya). These new codes can be used to report monitoring results generated in the frame of any piece of legislation, not only under Regulation (EC) No 669/2009.
- The percentage of fat in the sample (fatPerc): it is no more mandatory to report the numerical value of the percentage of the fat content in the sample when the results are reported on 'fat basis' in the data element expression of the result (exprRes).
- Limit of Quantification (LOQ) of the result (resLOQ): according to the requirements in the document SANCO/12574/2014 rev.5¹ the reporting of the resLOQ in line with the full legal residue definition (RD) for multicomponent definitions become applicable; this document provides some explanation on this matter.
- The result legal limit (resLegalLimit): the reporting of the legal limit becomes mandatory in case the MRL has changed during the year of the monitoring.
- Language of the reported free text data elements (lang): the reporting of this information is no more mandatory.

The above changes were necessary for one or more of the following reasons:

- New parameter codes are included in the PARAM catalogue to reflect the changes in the legal RDs laid down in the European Union (EU) pesticide MRL legislation and applicable in the reference monitoring year; some of the existing codes in the catalogue are no more reportable, as obsolete.
- New parameter codes are included in the PARAM catalogue for the single components of the multicomponent legal RDs that are made up of more than one component.
- New parameter codes are included in the PARAM catalogue because new pesticides are analysed in the national laboratories and appropriate codes were not available in the previous version of the catalogue.
- Typos in the textual description of the PARAM codes have been identified and corrected.
- Amendments of the existing PARAM codes, which were previously set for the same substance in the framework of different food data collection domains (e.g. overlapping substances in the pesticide residue and veterinary medicines areas).

¹ Document available at: http://ec.europa.eu/food/plant/docs/plant_pesticides_mrl_guidelines_wrkdoc_11945.pdf

In Sections 3, 4 and 5 of the present document, all the single SSD data elements are described and an indication is provided whether they have to be mandatorily or voluntarily reported. In addition, these sections give reference to the applicable SSD catalogues (where existing) and its restriction in use them, if and where applicable. Section 6 provides for additional guidance related to the pesticide monitoring coding for specific food/feed samples and/or substances, which are not fully covered by Regulation (EC) No 396/2005 on pesticide residues MRL (i.e. baby food, fish, feed, veterinary medicines residues, synergists and safeners).

In Sections 7 and 8 of this document, EFSA provides an updated list of codes to describe the samples covered by the 2017 and 2018 European co-ordinated control programmes (EUCP) ('prodCode', 'prodTreat', 'progLegalRef', 'progSampStrategy' and 'progType'); in Section 9, the appropriate coding of the samples tested in the context of the reinforced import controls under Regulation (EC) No 669/2009 and applicable for the 2017 control activities ('prodCode', 'prodTreat', 'progLegalRef', 'progSampStrategy' and 'progType') is provided. The updated rules for data validation are listed in a separate (Excel) document; they can be retrieved in the EFSA Document Management System² (DMS) or directly in the Data Collection Framework (DCF) data loading platform.³

Finally, in Annex A – the template for the preparation of the National Summary Report is provided.

² <https://dms.efsa.europa.eu/otcs/cs.exe/link/19038181>

³ <https://dcf.efsa.europa.eu/dcf-war/dc>

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1. Introduction

1.1. Background

According to Regulation (EC) No 396/2005⁴ on maximum residue levels (MRL) of pesticides in or on food and feed of plant and animal origin, Member States have to carry out official controls on pesticide residues in food. The results of the analysis have to be submitted to EFSA and the European Commission. According to Article 32 of this Regulation, European Food Safety Authority (EFSA) has to prepare for each calendar year a report on pesticide residues on the basis of the results provided by the reporting countries. The annual report shall provide the following information:

- An analysis of the results of the controls on pesticide residues provided by European Union (EU) Member States and European Economic Area (EEA) countries;
- A statement of the possible reasons why the MRL were exceeded, together with any appropriate observations regarding risk management options;
- An analysis of chronic and acute risks to the health of consumers from pesticide residues;
- An assessment of consumer exposure to pesticide residues based on the information provided under first bullet point and any other relevant available information, including reports submitted under Directive 96/23/EC⁵;
- Recommendations should be elaborated regarding pesticides to be covered in future programmes.

Since 2009, the Standard Sample Description (SSD) is the harmonised data model used for the reporting of chemical occurrence data (including pesticide residue monitoring data) to EFSA. The SSD contains in total 76 data elements describing characteristics of samples and analytical results, controlled terminologies and validation rules.

For the pesticide monitoring data collection, of the 76 SSD data elements, 24 elements are to be reported on a mandatory basis (for three additional elements, the data reporting is mandatory only under certain conditions). For the mandatory data elements, it is essential that reporting countries use a consistent approach for coding. Thus, clear guidance needs to be provided to the national competent authorities responsible for the data submission; only if these coding conventions are respected, EFSA can perform the analysis of the data from different data sources as required in Article 32 of Regulation (EC) No 396/2005.

On a yearly basis, the EFSA Network on Pesticide Monitoring provides feedback on the experience with the use of the SSD data model. Based on this, on the observations made by EFSA during the data analysis of the previous year and on the basis of the new legislation relevant for control of pesticide residues in food,^{6,7} EFSA identified a number of issues where the guidance document prepared for the previous reporting of pesticide monitoring data (EFSA, 2017) should be amended. This document was revised in 2017 and is aimed at the coding and reporting the 2017 pesticide monitoring data. It should be noted that the changes introduced by this guidance are reflected in the EFSA supporting tool named 'MatrixTool'; this latter tool is meant to provide the data providers with additional assistance in the selection of the appropriate combination of the codes for the following SSD data elements: prodCode, paramCode and paramType. The MatrixTool is provided separately.

Finally, on a yearly basis EFSA – in collaboration with the Network's members – reviews the SSD catalogues in view on the next pesticide monitoring data collection. The catalogue updates described in this document reflect the new legal requirements, e.g. the changes in the legal RDs under Regulation (EC) No 396/2005; comments and suggestions for improvement provided by the Network were also assessed and/or addressed in this document.

⁴ Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC. OJ L 70, 16.3.2005, p. 1–16.

⁵ Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products and repealing Directives 85/358/EEC and 86/469/EEC and Decisions 89/187/EEC and 91/664/EEC. OJ L 125/10, 23.5.96, p. 1–23.

⁶ Commission Implementing Regulation (EU) 2016/662 of 1 April 2016 concerning a coordinated multiannual control programme of the Union for 2017, 2018 and 2019 to ensure compliance with maximum residue levels of pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin; OJ L 115, 29.4.2016, p. 2–15.

⁷ Regulation (EC) No 669/2009 of 24 July 2009 implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin and amending Decision 2006/504/EC. OJ L 194, 25.7.2009, p. 11.

In the past years, EFSA frequently received requests from stakeholders asking for access to pesticide monitoring data submitted in the framework of the pesticide data collection as per Regulation (EC) No 396/2005. In its capacity of a European Union agency, EFSA is subject to Regulation (EC) No 1049/2001 on public access to documents. The data providers have to be aware that data sets submitted to EFSA may result in their full or partial disclosure, including any personal and/or commercially sensitive information, if provided.⁸

EFSA launched a Member State consultation on the final draft version of this guidance document on 2/2/2017. Comments and feedbacks were submitted by six Member States (BE, DE, IT, LU and SE); these comments have been taken into account in the final version of the document, as appropriate. The document was agreed by written procedures 28 March 2018 by the EFSA Network on Pesticide Monitoring.

1.2. Terms of Reference

EFSA shall update the guidance document prepared for the past data collections (EFSA, 2015a, 2016, 2017) describing the use of the SSD for coding the results of official controls performed in the course of 2017 by Member States and in accordance with the provisions of Article 29 and 30 of Regulation (EC) No 396/2005.

The current update shall in particular provide instructions for reporting information in the SSD controlled terminology that changed compared the previous guidance documents. The new legislation having an impact on the provisions on control of pesticide residues in food shall also be taken into account in this revised version of the guidance. In addition, the document shall provide unambiguous guidance for data elements where difficulties with inconsistent coding were identified in the past or where the information provided by the reporting countries did not allow EFSA to perform the analysis as required in Article 32 of Regulation (EC) No 396/2005; in these cases, specific examples on the correct food samples coding should be provided.

To facilitate the work for the reporting countries concerning the 2017 data collection, the guidance document shall also provide the valid SSD codes for the reporting of the samples and results taken in the frame of the 2018 EU Co-ordinated control programme (EUCP).

2. Data model for reporting the monitoring pesticide residue data

The SSD defines in total 76 data elements which are characterised by an element code, an element name and an element label. For each element, a specific format is defined, such as text fields with a permitted number of characters (e.g. xs.string (20) for text field with 20 characters) or numerical fields (e.g. xs.decimal 4,0 for a numerical field with four digits and no digits after the comma or xs.double). The following data elements of the SSD are numerical and typically reported with decimal figures: resLOD, resLOQ, resVal, resValRec, resValUncertSD, resValUncert, moistPerc, fatPerc and resLegalLimit. Considering that, in XML language, the comma (',') cannot be used as a decimal separator, the results for the mentioned data elements have to be formatted with a dot ('.') as decimal separator.

In Table 1, the 76 data elements of the SSD data model are listed, including the element names, codes and labels. For a number of data elements, controlled terminology has been developed, i.e. a list of terms that can be used for reporting the values of the data element. These lists of controlled terminology are also referred to as 'catalogues' or 'dictionaries' or 'pick lists'. In the last column of Table 1, the relevance of the data elements for coding of pesticide residue data is reported (mandatory, optional or not reportable data elements):

- **Mandatory data elements:** elements that are needed to report essential information⁹; if they are not reported, an automatic error message will be returned to the data provider and the related incomplete record will not pass the data validation step.
- **Optional data elements:** elements that can be returned at the discretion of the data provider on voluntarily basis.
- **Not reportable data elements:** the data element with this status shall no longer be reported; they all refer to element used in the past to report free text information. In case, details on the food item tested considered relevant by the data provider (e.g. information describing the nature of the product analysed) that cannot be reported with the data elements prodCode and

⁸ For the pesticide residue data, you may consult the Decision of the European Court of Justice, which is available at: <http://curia.europa.eu/jcms/upload/docs/application/pdf/2016-11/cp160128en.pdf>

⁹ A number of data elements become mandatory if a certain code is selected for another data element (mandatory only under certain conditions). Details are provided in the appropriate Sections of the present Guidance.

prodTreat should be reported in the data element resComm, which is still reportable with free text. The not-reportable data element shall be left blank for all the records coded and to be transmitted to EFSA. In case, any text or value will be inputted in this data element, an error message will be returned to the data provider.

In total, 24 data elements are mandatory for pesticide residue data; the majority of the remaining data elements are optional, meaning that they can be used to describe certain features of the samples or of the results, but this information is currently not or partially used for the data analysis performed by EFSA. Overall, only four SSD elements are 'not reportable' in the frame of the pesticide monitoring data collections.

For 15 mandatory data elements, the controlled terminology also named 'catalogues' have to be used for coding. In addition, catalogues are available for a number of optional data elements. It is noted that as a general rule when an entry from a catalogue is selected, only the code is required. Any further descriptions reported in additional columns of the catalogue are not required. Finally, in general for each data element, only one element value can be reported with the exception of the data element Action Taken (see Section 5.25) where multiple element values can be selected from the catalogue ACTION. The Excel file which contains the updated controlled terminologies (catalogues) and the corresponding codes relevant for the reference period 2017 is published separately.

The individual data elements listed in Table 1 can be clustered in:

- 1) Information describing the sample and the sampling procedure: data element code starts with the letter S (Section 3 of this document);
- 2) Information on the laboratory that generated the analytical result: data element code starts with the letter L and O (Section 4 of this document);
- 3) Information describing the analytical method/analytical results: data element code starts with the letter R (Section 5 of this document) and
- 4) The result evaluation: data element code starts with the letter R (Section 5 of this document).

Finally, the list of the sample-related SSD data variables most frequently reported are the following ones^{10,11}: **labSampCode**, labSubSampCode, **sampCountry**, **origCountry**, origArea, origFishAreaCode, origFishAreaText, procCountry, procArea, **prodCode**, **prodProdMeth**, prodPack, **prodTreat**, **sampY**, **sampM**, **sampD**, progCode, **progLegalRef**, **progSampStrategy**, **progType**, **sampMethod** and sampPoint. It is important noticing that the SSD **sample** descriptors must be consistent for all records reported for with the same 'Laboratory sample code' (labSampCode), (identical text/code for all records related to a certain labSampCode). For example, for a given **food sample** analysed and identified by a unique 'labSampCode' (sample identification number), the 'prodCode' and 'prodTreat' have to be consistently and exactly the same for each analytical results reported.

In Sections 3–5 of the present Guidance, detailed instructions and examples are provided on the selection of the correct codes for these four groups of data elements. Section 6 provides additional information and examples for cases that are not fully covered by Regulation (EC) No 396/2005, such as the reporting of the analytical results for baby food, feed, fish and results for veterinary medicinal products, safeners and synergists.

In order to make the document a useful reference for the daily work of data managers or experts working in the official control laboratories in national competent authorities responsible for the reporting of results to EFSA, the document contains cross references and hyperlinks to related data elements which should facilitate to find relevant information in the document.

EFSA developed a number of data validation rules for checking the compliance of the data coding with the rules described in this guidance document; the validation rules are meant to ensure that a high level of data quality is achieved. Where applied by EFSA, the validation rules may return error or warning messages. In case an error message will be generated by the rule, the non-valid value selected for reporting/coding a certain data element will have to be corrected by the data provider; in case the validation of the data returns a warning message, the data transmitter may confirm to EFSA

¹⁰ The SSD data elements listed in bold characters are those mandatory in the frame of the SSD data model for the pesticide monitoring data collection.

¹¹ The sample descriptors must be constant (the same) for all records with the same 'Laboratory sample code' (labSampCode). The descriptor data elements are: lang, sampCountry, sampArea, origCountry, origArea, origFishAreaCode, origFishAreaText, procCountry, procArea, EFSAProdCode, prodCode, prodProdMeth, prodPack, prodTreat, prodBrandName, prodManuf, prodIngred, prodY, prodM, prodD, expiryY, expiryM, expiryD, sampY, sampM, sampD, progCode, progSampStrategy, progType, sampleNum, lotSize, lotSizeUnit and sampPoint.

the value that generated a warning is correct (in this case, the data will be accepted in the EFSA data depository); optionally, the data provider will correct the mistake and resubmit the corrected data. The description of the business rules applicable to the pesticide residue data collection are reported in a separate (Excel) document).

It should be noted that EFSA has developed a new version of the SSD (Standard Sample Description_ver. 2.0 or 'SSD2'). While the first version of SSD was developed for reporting occurrence data of chemicals in food, SSD2 was intended to integrate also the reporting of other food domains such as to monitoring of zoonoses, zoonotic agents and antimicrobial resistance and results on environmental samples. However, for pesticides, the original version of the SSD data model is still used by many countries. The reporting of the pesticide monitoring results in SSD2 is possible starting from the 2017 data in 2018. A separate Guidance document should be consulted for the data coding in SSD2 format.

This guidance document will replace some provisions of the EFSA Guidance Document 'Standard sample description for food and feed' (EFSA, 2010) in order to solve problems for data reporting and/or data analysis as this guidance document is no longer updated. The current document is complementary to the Guidance on the data exchange (EFSA, 2014) which is dealing with technical details regarding the data submission.

Finally, considering that the data submitted in the framework of the pesticide monitoring will be transferred to the EFSA scientific data warehouse (DWH), the rules on data sharing should be born in mind (EFSA, 2015b).

Table 1: Overview of the SSD data elements for the reporting of the pesticide residue monitoring data to EFSA and the related SSD catalogues, where existing

Element code	Element name	Element label	Data type	Controlled terminology	Relevance/status for pesticide residue data ^(a)
S.01	labSampCode	Laboratory sample code	xs:string (20)		Mandatory
S.02	labSubSampCode	Laboratory subsample code	xs:decimal (4,0)		Optional
S.03	lang	Language	xs:string (2)	LANG	Optional
S.04	sampCountry	Country of sampling	xs:string (2)	COUNTRY	Mandatory
S.05	sampArea	Area of sampling	xs:string (5)	NUTS	Optional
S.06	origCountry	Country of origin of the product	xs:string (2)	COUNTRY	Mandatory
S.07	origArea	Area of origin of the product	xs:string (5)	NUTS	Optional
S.08	origFishAreaCode	Area of origin for fisheries or aquaculture activities code	xs:string (10)	FAREA	Optional
S.09	origFishAreaText	Area of origin for fisheries or aquaculture activities text	xs:string (250)		Optional
S.10	procCountry	Country of processing	xs:string (2)	COUNTRY	Optional
S.11	procArea	Area of processing	xs:string (5)	NUTS	Optional
S.12	EFSAProdCode	EFSA Product Code	xs:string (250)	FOODEX	Optional
S.13	prodCode	Product code	xs:string (20)	MATRIX	Mandatory
S.14	prodText	Product full text description	xs:string (250)		Mandatory (only under certain conditions)
S.15	prodProdMeth	Method of production	xs:string (5)	PRODMD	Mandatory
S.16	prodPack	Packaging	xs:string (5)	PRODPAC	Optional
S.17	prodTreat	Product treatment	xs:string (5)	PRODTR	Mandatory
S.18	prodBrandName	Brand name	xs:string (250)		Optional
S.19	prodManuf	Manufacturer	xs:string (250)		Optional
S.20	prodIngred	Ingredients	xs:string (250)		Optional

Element code	Element name	Element label	Data type	Controlled terminology	Relevance/status for pesticide residue data ^(a)
S.21	prodCom	Product comment	xs:string (250)		Data element disabled for the pesticide residues data collection Not to be used
S.22	prodY	Year of production	xs:decimal (4,0)		Optional
S.23	prodM	Month of production	xs:decimal (2,0)		Optional
S.24	prodD	Day of production	xs:decimal (2,0)		Optional
S.25	expiryY	Year of expiry	xs:decimal (4,0)		Optional
S.26	expiryM	Month of expiry	xs:decimal (2,0)		Optional
S.27	expiryD	Day of expiry	xs:decimal (2,0)		Optional
S.28	sampY	Year of sampling	xs:decimal (4, 0)		Mandatory
S.29	sampM	Month of sampling	xs:decimal (2, 0)		Mandatory
S.30	sampD	Day of sampling	xs:decimal (2, 0)		Mandatory
S.31	progCode	Sampling programme code	xs:string (20)		Optional
S.32	progLegalRef	Programme legal reference	xs:string (100)		Mandatory
S.33	progSampStrategy	Sampling strategy	xs:string (5)	SAMPSTR	Mandatory
S.34	progType	Type of sampling program	xs:string (5)	SRCTYP	Mandatory
S.35	sampMethod	Sampling method	xs:string (5)	SAMPMD	Mandatory
S.36	sampleNum	Number of samples	xs:integer		Optional
S.37	lotSize	Lot size	xs:double		Optional
S.38	lotSizeUnit	Lot size unit	xs:string (5)	UNIT	Optional
S.39	sampPoint	Sampling point	xs:string (10)	SMPNT	Mandatory
L.1	labCode	Laboratory	xs:string (100)		Mandatory
L.2	labAccred	Laboratory accreditation	xs:string (5)	LABACC	Mandatory
L.3	labCountry	Laboratory country	xs:string (2)	COUNTRY	Optional
O.1	localOrg	Local organisation	xs:string (100)		Optional
O.2	localOrgCountry	Local organisation country	xs:string (2)	COUNTRY	Optional
R.01	resultCode	Result code	xs:string (40)		Mandatory
R.02	analysisY	Year of analysis	xs:decimal (4, 0)		Mandatory
R.03	analysisM	Month of analysis	xs:decimal (2, 0)		Optional
R.04	analysisD	Day of analysis	xs:decimal (2, 0)		Optional
R.05	EFSAParamCode	EFSA Parameter Code	Xs:string (250)	To be defined	Optional
R.06	paramCode	Parameter code	xs:string (20)	PARAM	Mandatory

Element code	Element name	Element label	Data type	Controlled terminology	Relevance/status for pesticide residue data ^(a)
R.07	paramText	Parameter text	xs:string (250)		Data element disabled for the pesticide residues data collection Not to be used
R.08	paramType	Type of parameter	xs:string (5)	PARTYP	Mandatory
R.09	anMethRefCode	Analytical method reference code	xs:string (500)		Optional
R.10	anMethCode	Analytical method code	xs:string (5)	ANLYMD	Optional
R.11	anMethText	Analytical method text	xs:string (250)		Data element disabled for the pesticide residues data collection Not to be used
R.12	accredProc	Accreditation procedure for the analytical method	xs:string (5)	MDSTAT	Optional
R.13	resUnit	Result unit	xs:string (5)	UNIT	Mandatory
R.14	resLOD	Result LOD	xs:double		Optional
R.15	resLOQ	Result LOQ	xs:double		Mandatory
R.16	CCalpha	CC alpha	xs:double		Optional
R.17	CCbeta	CC beta	xs:double		Optional
R.18	resVal	Result value	xs:double		Mandatory (only under certain conditions)
R.19	resValRec	Result value recovery	xs:double		Mandatory (only under certain conditions)
R.20	resValRecCorr	Result value corrected for recovery	xs:string (1)	YESNO	Optional
R.21	resValUncertSD	Result value uncertainty Standard deviation	xs:double		Optional
R.22	resValUncert	Result value uncertainty	xs:double		Optional
R.23	moistPerc	Percentage of moisture in the original sample	xs:double		Optional
R.24	fatPerc	Percentage of fat in the original sample	xs:double		Optional
R.25	exprRes	Expression of result	xs:string (5)	EXRES	Optional
R.26	resQualValue	Result qualitative value	xs:string (3)	POSNEG	Optional
R.27	resType	Type of result	xs:string (3)	VALTYP	Mandatory
R.28	resLegalLimit	Legal Limit for the result	xs:double		Mandatory (only under certain conditions)
R.29	resLegalLimitType	Type of legal limit	xs:string (5)	LMTTYP	Optional
R.30	resEvaluation	Evaluation of the result	xs:string (5)	RESEVAL	Mandatory
R.31	actTakenCode	Action Taken	xs:string (5)	ACTION	Optional
R.32	resComm	Comment of the result	xs:string (250)		Optional

(a): Terms reported in bold characters refers to changes introduced and applicable starting with 2017 pesticide monitoring data collection.

3. Sample information

3.1. Laboratory sample code ('labSampCode', SSD data element S.01)

This data element is mandatory. The laboratory sample must be identified by a unique sample identification number not longer than 20 characters. Where multiple analytical results are reported for

a sample (e.g. results for different pesticide residues analysed in the same sample using multiresidue methods and/or several single residue methods), the same laboratory sample code has to be used for the different records.

3.2. Laboratory subsample code ('labSubSampCode', SSD data element S.02)

This data element is not mandatory for the pesticide residue data collection. The information reported in this data element, if any, is currently not considered by EFSA in its data analysis.

3.3. Language ('lang', SSD data element S.03)

This is an optional data element; in case this element is reported, the catalogue LANG has to be used. With this data element, the data transmitter defines which language was used for coding-free text fields (i.e. resComm). As a general rule, the free text information should be reported in English (language code: 'en') to facilitate the data interpretation and management at EFSA level.

3.4. Country of sampling ('sampCountry', SSD data element S.04)

The country of sampling is the country where in accordance with Article 27 of Regulation (EC) No 396/2005, the official sample was taken. For coding, the catalogue COUNTRY has to be used. According to the business rules listed at the end of this document, only the codes for the reporting countries (28 EU Member States, Iceland and Norway) are accepted. The codes for the French Overseas Territories (FOT) are not valid for this data element. In case samples are taken by FOT, these have to be reported as sampled in France.

3.5. Area of sampling ('sampArea', SSD data element S.05)

The area of sampling provides more detailed geographical information on locations according to the definitions described in the Section 3.4. If reported, this information has to be coded according to the nomenclature of territorial units for statistics, which reported in the NUTS codes' catalogue. This coding system only covered regions within countries in Europe. For the pesticide monitoring data collection, this data element is not mandatory.

3.6. Country of origin of the product ('origCountry', SSD data element S.06)

This data element specifies the origin of the food product analysed. The catalogue COUNTRY has to be used for the coding. All codes of this catalogue except EU, XD and XE are valid for this data element. If it is not possible to identify the country of origin, the most appropriate code listed above should be used (AA, XC or XX):

- AA – Unspecified country that is part of the EEA,
- XC – Unspecified third country (non-EEA country) and
- XX – Unknown, nothing is known about the country

In the past, EFSA noted that, in some cases, data providers used the code for the country where the product was packed instead of the code for the country where the food product was produced (e.g. rice with country of origin Iceland). This should be avoided; reporting countries are encouraged to identify the origin of the product, in particular for unprocessed (raw) food products and for cases where the MRL was exceeded. Additional information on the country of processing can be reported in the relevant data element 'country of food processing' ('procCountry', SSD data element S.10, see Section 3.10).

Please note that for certain data analysis to be presented in the EU Report on Pesticide Residues EFSA will recode the country of origin reported by the data provider.¹²

¹² French Guinea (GF), Guadeloupe (GP), Martinique (MQ), French Polynesia (PF), Saint Pierre and Miquelon (PM), Réunion (RE), French Southern Territories (TF), Wallis and Futuna Island (WF), Mayotte (YT) are considered as part of France (FR), Hongkong (HK) is recoded to China (CN); samples of fish and fish products from Faroe Islands (FO) are recoded to Denmark (DK); Bonaire, Sint Eustatius and Saba (BQ) is recoded to the Netherlands (NL).

3.7. Area of origin of the food product and for the fisheries or aquaculture activities ('origArea', SSD data element S.07)

This SSD data element is not mandatory for the pesticide monitoring data collection.

The area of origin provides more detailed geographical information on locations of the food item tested in accordance to the definitions described in the Section 3.7. If reported, this information has to be coded according to the nomenclature of territorial units for statistics, which reported in the NUTS codes' catalogue. This coding system only covers regions within countries in Europe.

3.8. Area for the fisheries or aquaculture activities ('origFishAreaCode', SSD data element S.08)

For the pesticide monitoring data collection, this data element is not mandatory.

Fishing areas are coded using the FAO fishing area coding system, prefixed with the letter 'M', which are listed in the FAREA catalogue. Additional codes have been added in case details on the part of the ocean are unknown or if the fishing area is unknown.

3.9. Details on the area for the fisheries or aquaculture activities ('origFishAreaText', SSD data element S.09)

For the pesticide monitoring data collection, this data element is not mandatory.

Fishing areas are coded using the FAO fishing area coding system, prefixed with the letter 'M', which are listed in the FAREA catalogue. In case, if it wishes to provide more detailed information on the areas for fisheries/aquaculture activities (e.g. ICES codes, name of river or lake or place of catch), it can be done as a free text in this data element.

3.10. Country of food processing ('procCountry', SSD data element S.10)

For the pesticide monitoring data collection, this data element is not mandatory. The processing country is the location where the processed commodity was manufactured. This element should be used for processed commodities only; please see also the data element Country of origin of the product ('origCountry', SSD data element S.06). If reported, information on country where the food tested was processed shall be coded according to the COUNTRY catalogue.

3.11. Area of food processing ('procArea', SSD data element S.11)

For the pesticide monitoring data collection, this data element is not mandatory. The processing area is the location where the processed commodity was manufactured. This element should be used for processed commodities only. If reported, information on the geographical area where the food tested was processed shall be coded according to the NUTS catalogue.

3.12. EFSA product code ('EFSAprodCode', SSD data element S.12)

This data optional element shall not be considered for the pesticide monitoring data reporting, as the only valid codes for reporting the food item description are those ones in the MATRIX catalogue of the data element prodCode (please refer to Section 3.13).

Related data elements: 3.13 Product code ('prodCode', SSD data element S.13), 3.17 Product treatment ('prodTreat', SSD data element S.17).

3.13. Product code ('prodCode', SSD data element S.13)

This data element together with the data element 'prodTreat' is essential to describe unambiguously the food product analysed to which the result of the pesticide residue analysis refers to. The food classification defined in Annex I of Regulation (EC) No 396/2005 (and its amendments) is the basis of the MATRIX catalogue that has to be used for the coding of prodCode. The data transmitter should be aware that the food classification of Annex I implements a food hierarchy of up to four hierarchy levels; for example, for tomatoes:

- Hierarchy level 1: Vegetables, MATRIX code P0200000A
 - Hierarchy level 2: Fruiting vegetables, MATRIX code P0230000A

- Hierarchy level 3: Solanacea, MATRIX code P0231000A
- Hierarchy level 4: Tomatoes, MATRIX code P0231010A

In many cases, the food products at the lowest hierarchy level represent a representative lead crop with other related varieties or other products classified under the same code (e.g. Physallis and goji berry are classified under the same code as tomatoes). For describing the food product analysed, normally the code reflecting the lowest level of the hierarchy should be used (e.g. select the code for tomatoes instead of the code for Solanacea). For reporting results on Physallis, also, the code for tomatoes has to be selected.

The MATRIX catalogue implements the food classification introduced by Commission Regulation (EU) No 752/2014¹³ (Part A of Annex I of this Regulation). If a food product is not listed in the MATRIX catalogue, EFSA recommends consulting Part B of Annex I to Regulation (EU) No 752/2014 (i.e. column 'Examples of related varieties or other products to which the same MRL applies') to identify the correct MATRIX code to be selected.

Starting with the 2017 pesticide-monitoring data collection the MATRIX catalogue has been extended in order to take into account some specific technical and legislative aspects related to a few food items; these new codes are reported in Table 3. It is strongly recommended to make use of these new MATRIX codes, when applicable.

In order to describe composite food samples, the 'prodCode' reflecting the main component should be selected (e.g. the prodCode for barley should be used for reporting results for beer). In these cases, a detailed description of the product analysed can be provided – if considered necessary – in the data element prodText (see Example 1).

Once the new food coding system FoodEx2 will be fully implemented, composite food samples and specific food items not specifically listed in Regulation No 752/2014 will be uniquely reportable by FoodEx2 codes.

Example 1: Which prodCode should be used to report results on pomelo?

Data element	Element value (catalogue)	Code description	Note
prodCode	P0110010A (MATRIX)	Grapefruits	According to Part B of Regulation 752/2014, pomelos belong to the same MRL main group of grapefruits, to which corresponds the code P0110010A of the MATRIX catalogue
prodTreat	T999A (PRDTR)	Unprocessed	
prodText	Pomelo		

3.13.1. Codes for food for infants and young children

For food products for infants and young children covered by Directive 2006/125/EC¹⁴ and Directive 2006/141/EC¹⁵, a number of codes are available in the MATRIX catalogue that can be used to describe the sample tested. An additional generic code available in the MATRIX catalogue. A detailed description of all available codes used for this group of food products is provided in Table 2.

¹³ Commission Regulation (EU) No 752/2014 of 24 June 2014 replacing Annex I to Regulation (EC) No 396/005 of the European Parliament and of the Council. OJ L 208, 15.7.2014, p. 1–71.

¹⁴ Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based foods and baby foods for infants and young children, OJ L 339, 6.12.2006, p. 16–35.

¹⁵ Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae and amending Directive 1999/21/EC, OJ L 401, 30.12.2006, p. 1–33.

Table 2: SSD codes relevant reporting of results for any type of 'baby food'

MATRIX code	MATRIX code description	Comment
PX100000A	Food for infants and young children	This code is considered as the generic code and it should only be used if none of the other codes below listed in this table is appropriate to describe the sample
PX100001A	Baby foods other than processed cereal-based foods	Definition of this code as provided in Directive 2006/125/EC: Baby foods other than processed cereal-based foods (e.g. ready to eat food marketed in jars, containing fruit, vegetables, meat or fish and other ingredients) This code <u>does not apply</u> to milks intended for young children (aged between 1 and 3 years) ^(a) or to food specifically marketed for infants and young children For some food products offered for infants and young children (e.g. herbal teas), national competent authorities have different views on whether or not the products comply with the definition of baby food given in Directive 2006/125/EC. If according to the national competent authorities the product is compliant with the definition of Directive 2006/125/EC, this code should be used for describing the sample (see Examples 2 and 3)
PX100003A	Processed cereal-based foods for infants and young children	Definition of this code as provided in Directive 2006/125/EC: Food fulfilling the particular requirements of infants and young children in good health and intended for use by infants while they are being weaned, and by young children as a supplement to their diet and/or for their progressive adaptation to ordinary food, such as: <ul style="list-style-type: none"> • Simple cereals which are or have to be reconstituted with milk or other appropriate nutritious liquids • Cereals with an added high-protein food which are or have to be reconstituted with water or other protein free liquid • Pastas which are to be used after cooking in boiling water or other appropriate liquids • Rusks and biscuits which are to be used either directly or, after pulverisation, with the addition of water, milk or other suitable liquids.
PX100004A	Infant formulae	Definition of this code as provided in Directive 2006/141/EC: Food intended for particular nutritional use by infants during the first months of life and satisfying by themselves the nutritional requirements of such infants until the introduction of appropriate complementary feeding
PX100005A	Follow-on formulae	Definition of this code as provided in Directive 2006/141/EC: Food intended for particular nutritional use by infants when appropriate complementary feeding is introduced and constituting the principal liquid element in a progressively diversified diet of such infants

(a): For milk intended for young children the appropriate prodCode for milk (e.g. P1020010 for cattle milk) should be used.

The following examples are aimed at illustrating which codes should be used for describing samples of 'baby food'.

Example 2: How to report the results for a pesticide residue in herbal tea for infants that according to national authorities fall under Directive 2006/125/EC

Data element	Element value (catalogue)	Code description	Note
prodCode	PX100001A (MATRIX)	Baby foods other than processed cereal-based foods	Code to be used if according to the national interpretation of the definition for baby food, the product analysed falls under Directive 2006/125/EC
prodTreat	T100A (PRODTR)	Processed	By definition baby food products are processed products
progLegalRef	N028A	Samples of food products falling under Directive 2006/125/EC	

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0261-001-PPP (PARAM)	Lambda-Cyhalothrin	For baby food, the paramCode reflecting the residue definitions set out in Regulation (EC) No 396/2005 should be selected
exprRes	B007A (EXRES)	Reconstituted product	The result should be expressed for the <u>product reconstituted</u> according to the instructions of the manufacturer (i.e. the diluted product). See also Section 5.19 of this Guidance
resLegalLimit	0.01		For baby food, the default MRL of 0.01 mg/kg is applicable for lambda-cyhalothrin. This legal limit refers to the <u>product reconstituted</u> according to the instructions of the manufacturer
prodText	Herbal tea on the basis of camomile for babies (instant powder to be diluted with water)		Further information describing the product tested can be provided in this data element (free text data element)

Example 3: How to report the results for a pesticide residue in herbal tea for infants that according to national authorities does not fall under Directive 2006/125/EC

Data element	Element value (catalogue)	Code description	Note
prodCode	P0631010A (MATRIX)	Camomile	
prodTreat	T100A (PRODTR)	Processed	
progLegalRef	N027A	Sample taken under Regulation (EC) No 396/2005	
paramCode	RF-0261-001-PPP (PARAM)	Lambda-Cyhalothrin	
exprRes	B001A (EXRES)	Whole product	For products taken in the framework of Regulation (EC) No 396/2005, the result should be expressed on whole product basis (in this case the undiluted instant powder)
resLegalLimit	1		The MRL set out in Regulation (EC) No 396/2005 has to be recalculated to the processed product using an appropriate processing factor
prodText	PF 10 used to recalculate the MRL to the processed product ^(a) Herbal tea on the basis of camomile for babies (instant powder to be diluted with water)		For processed products falling under Regulation (EC) No 396/2005 the processing factor (PF), which was used for checking MRL compliance should be reported. Additional free text information on the sample tested can be reported in the prodText data element

(a): Please note that this is a hypothetical PF to illustrate the example.

Example 4: How to report the results for 'Growing up milks'

Data element	Element value (catalogue)	Code description	Note
prodCode	P1020010A (MATRIX)	Milk Cattle	Since milks intended for young children (aged between one and three years) are explicitly exempted from the 'baby food' legislation, the code derived from Annex I of Regulation (EC) No 396/2005 has to be selected
prodTreat	T150A (PRODTR)	Pasteurised	As appropriate

Data element	Element value (catalogue)	Code description	Note
progLegalRef	N027A	Sample taken under Regulation (EC) No 396/2005	Since the product is not covered by the baby food legislation, the progLegalRef code N028A (Samples of food products falling under Directives 2006/125/EC or 2006/141/EC) is <u>not</u> appropriate
resLegalLimit	0.1		MRL established under Regulation (EC) No 396/2005. It is noted that for this case, the default MRLs for baby food does not apply
prodText	Growing up milks (liquid, ready for consumption)		More detailed description of the product analysed can be provided in this data element

The 'prodCode' XXXXXXXA ('Not in list') from the MATRIX catalogue, which is referring to general descriptors of the food tested, is reportable. However, it should be used only in exceptional cases and only after having verified that the tested food product is not explicitly mentioned in the MATRIX catalogue (or in Part B of Annex I to Regulation (EC) No 396/2005); this code can be used to report composite food samples, by providing – in addition – a free text description in the data element prodText (see Section 5.26). When the SSD2 will be fully implemented, then FoodEx2 catalogue should be sufficiently extensive to cover all the food items to be reported.

3.13.2. Codes for food for specific food items tested under Regulation 669/2009 on import controls

Starting with the 2017 pesticide-monitoring data collection, specific MATRIX codes have been allocated for certain food items regulated in the framework of Regulation 669/2009 and for which specific codes are not available in the pesticide residue MRL food classification (see Table 3). The coding of these items with the new codes allows EFSA to unambiguously identify the monitoring results related to food import controls and reduce the number of validation rules. However, these new codes can also be used to report monitoring results generated in the frame of any piece of legislation (e.g. Regulation (EC) No 396/2005), and not only under Regulation (EC) No 669/2009.

Table 3: New MATRIX codes to be used to report specific food items (in particular, but not only, tested under Regulation 669/2009 on import controls) and for which a specific MRL are not set in the EU MRL legislation

Food codes (MATRIX catalogue) for food items for which specific, single MRL are not set in Regulation 396/2005	Code description	Note
P0256080-020A	Mint	To report fresh mint samples, please do not use the code for 'Basil and edible flowers' (MATRIX code P0256080A)
P0256080-009A	Basil (holy, sweet)	To report fresh basil (holy, sweet) samples, please do not use the code for 'Basil and edible flowers' (MATRIX code P0256080A)
P0256030-004A	Coriander leaves	To report coriander leaves samples, please do not use the code for 'Celery leaves (MATRIX code P0256030A)
P0231020-001A	Chili peppers	To report chili peppers samples, please do not use the code for 'Peppers (Capsicum spp.)' (MATRIX code P0231020A)
P0162040-001A	Pitahaya (dragon fruit)	To report pitahaya samples, please do not use the code for 'Prickly pears/cactus fruits' (MATRIX code P0162040A)

Related data elements: 3.17 Product treatment ('prodTreat', SSD data element S.17), 5.26 Comment on the result ('resComm', SSD data element R.32).

3.14. Product full text description ('prodText', SSD data element S.14)

This free text data element shall only be used to provide a more detailed description of the product analysed. This information can be provided for e.g. composite food (e.g. pizza).

The reporting of the 'prodText' is mandatory only under certain conditions. Thus, in general this is not a mandatory data element, but it becomes mandatory for the food items coded with the 'ProdCode' 'XXXXXXA' (i.e. food product 'Not in list') (see also Section 3.13 on the Product code).

It is recalled that the SSD sample descriptors must be consistent for all records reported for with the same 'Laboratory sample code' (labSampCode), (identical text for all records related to a certain labSampCode). For example, for a given food sample analysed and identified by a unique 'labSampCode' (sample identification number), the 'prodCode', 'prodTreat', 'prodText' and 'prodCom' have to be consistently and exactly the same for each analytical results reported. The list of the sample related SSD data variables most frequently reported are the following ones: **labSampCode**, labSubSampCode, **sampCountry**, **origCountry**, origArea, origFishAreaCode, procCountry, procArea, **prodCode**, prodText, **prodProdMeth**, prodPack, **prodTreat**, prodBrandName, prodManuf, prodCom, **sampY**, **sampM**, **sampD**, progCode, **progLegalRef**, **progSampStrategy**, **progType**, **sampMethod** and sampPoint.

If the 'prodText' and/or the 'prodCom' are reported, then they have to reported with the same free text for all single determinations belonging to the same sample.

Related data elements: 3.13 Product code (prodCode, S.13), 3.17 Product treatment ('prodTreat', SSD data element S.17), 5.26 Comment on the result ('resComm', SSD data element R.32).

3.15. Method of production ('prodProdMeth', SSD data element S.15)

This element is mandatory for the pesticide residue data collection. Only a few values are valid codes for this data element to be selected from the PRODM catalogue (see Table 4).

EFSA uses this information to perform the data analysis regarding the residue situation in organic food compared with non-organic food. Please note that the other codes (e.g. under glass/protected growing conditions) are not accepted for the pesticide residue data reporting.

Table 4: Codes for describing method of production (PRODM catalogue)

Element value	Code description
PD07A	Organic production
PD09A	Non-organic production
PD12A	Integrated Pest Management
Z0215	Production method unknown

3.16. Packing of the food product ('prodPack', SSD data element S.16)

The reporting of this data element is not mandatory and at the moment is not used by EFSA in its data analysis. The packaging element describes the container or wrapper of the product, for example paper or plastic bags, boxes, tinsplate or aluminium cans, plastic trays, plastic bottles, glass bottles or jars. Where the exact type of packaging is known, please choose one of the codes in the PRODPAC catalogue.

3.17. Product treatment ('prodTreat', SSD data element S.17)

This mandatory data element is essential to describe unambiguously the food product analysed to which the result of the pesticide residue analysis refers to. The food product described in the prodCode element needs to be specified in more detail by using a code from the catalogue PRODTR.

3.17.1. Unprocessed products (T999A)

If the food product analysed fully complies with the description in the last column of Regulation (EU) No 752/2014, a product should be reported as unprocessed (T999A). For food products that are reported as being unprocessed, the legal limits set in Regulation (EC) No 396/2005 are directly applicable without the need to apply a processing or peeling factors (example oranges, walnuts after removal of shell, table grapes after removal of stems, olives for oil production of table olives, fresh herbs, dry beans, coffee beans (green beans)). For cereal grains, the MRL are set for whole grains without processing; thus, the products that are usually moved in trade. For rice, the MRLs are set for brown rice (husked rice). If polished rice is analysed, it has to be reported as processed (see Section 3.17.2). In the below examples, more explanations are reported (Examples 5, 6 and 7).

Example 5: How to report results for dry peas (pulses)

Data element	Element value (catalogue)	Code description	Note
prodCode	P0300030A (MATRIX)	Peas (dry)	Peas (dry seeds) are classified in the MRL food group of 'pulses'. The code P0260040A applies to fresh peas and should <u>not</u> be used for peas (dry) classified in the group of pulses
prodTreat	T999A (PRODTR)	Unprocessed	The prodTreat code T131A 'Dehydration' is not appropriate in this case. If the sample analysed complies with the description of Annex I of Regulation (EC) No 396/2005, the product is considered as being 'Unprocessed'. Drying of pulses to reach standard moisture content (ca. 15–19 %) is not considered as processing

Example 6: How to report results for green peas (without pods)

Data element	Element value (catalogue)	Code description	Note
prodCode	P0260040A (MATRIX)	Peas (without pods)	Fresh peas without pods are not classified in the MRL group of 'pulses'. They are classified in the MRL food group of 'Legume vegetables' 0260000 and the sample is made up of the whole product (only fresh pea seeds)
prodTreat	T999A (PRODTR)	Unprocessed	The prodTreat code T131A 'Dehydration' <u>cannot</u> be selected in this case

Example 7: How to report results for dry camomile flowers (herbal infusion)

Data element	Element value (catalogue)	Code description	Note
prodCode	P0631010A (MATRIX)	Camomile flowers	Herbal infusions, according to Annex I of Regulation (EC) No 396/2005, are dried products
prodTreat	T999A (PRODTR)	Unprocessed	If the sample analysed complies with the description of Annex I of Regulation (EC) No 396/2005, the product is considered as being unprocessed

Food products that were subject to mechanical crushing operation without segregation or removal of parts of the crop (e.g. chopping, grinding) should be also reported as unprocessed.

Example 8: How to report results for ground/milled spices, e.g. nutmeg

Data element	Element value (catalogue)	Code description	Note
prodCode	P0810090A (MATRIX)	Nutmeg	
prodTreat	T999A (PRODTR)	Unprocessed	Samples that have been ground, crushed, milled, powdered and/or pulverised have to be considered as unprocessed samples, as long as the process does not involve a separation of a certain fraction (like milling of cereals). Thus, they have to be reported with the code T999A (Unprocessed). Typically, this applies to dry spices marketed, e.g. in glasses

3.17.2. Processed products (other codes from catalogue PRODTR)

For processed products derived from raw agricultural products as specified in Annex I of Regulation (EC) No 396/2005 that do not fall under the categories described under Section 3.17.1 Unprocessed products (T999A), the most specific code for processing has to be selected from the catalogue PRODTR (see Table 5). Typical processed products are juices, canned vegetables, olive oil, wine, wheat flour and butter. Food products falling under legislation on food for infants and young children are also always processed.

Since the residue concentration is normally not influenced by freezing, samples of frozen products are considered in the data analysis performed by EFSA as unprocessed, unless the product has been

subject to additional processing (see Example 10). The full list of 'prodTreat' codes that can be selected from the catalogue PRODTR is reported in Table 5.

Table 5: Codes to be used to describe processed/unprocessed products (PRODTR catalogue)

ProdTreat code ^(a)	Code description	Note
T100A	Processed	This is the general code to be used for coding processed products that cannot be described with other, specific codes reported in this table. If this code is selected, more details on the type of product should be reported in the data element 'prodText' Food for infants and young children as defined in the baby food legislation (Directive 2006/125/EC and Directive 2006/141/EC and their amendments) should always be coded as 'Processed' ('prodTreat' code 'T100A') See also T103A 'Juicing', T104A 'Oil production'
T101A or T102A	Peeling	Products that were analysed after peeling. In general, the pesticide-monitoring analytical results for food products with peel should be reported for the unpeeled product (e.g. bananas including the peel); only in exceptional cases, the peeled products should be analysed before checking the sample compliance against the MRL (please check the product description in Annex I of Regulation (EC) No 396/2005 first) This code should <u>not</u> be used for products like shelled nuts or for husked cereals
T103A	Juicing	For fruit or vegetables juices (e.g. orange juice and carrot juice) This code should not be used for products like almond milk, soya milk, rice milk; these products should be coded with the code T100A 'Processed' See also T100A 'Processed'
T104A	Oil production	For vegetable oils, more specific codes for different types of oil processing are available (T105A–T109A); however, to facilitate the EFSA data analysis, it is recommended to use only the code T104A This code should be used for oilseeds and nuts, but <u>not</u> for products that are used for production of essential oils (e.g. orange oil); for the latter type of products, please use T100A; more detailed information can be reported in 'prodText' See also T100A 'Processed'
T110A	Milling	The generic code for milling should be used only for milled cereal products, except for wholemeal flour, refined flour and cereal bran, for which specific codes are available (see T111A, T112A and T113A). Thus, this code may be used for products such as wheat germs and gluten If the 'prodTreat' code T110A is used, a more detailed description of the product analysed should to be provided in the field 'prodText' The code should <u>not</u> be used for minced, ground or chopped products (e.g. ground poppy seed or spices) See also T100A 'Processed', T999A 'Unprocessed'
T111A	Milling – unprocessed flour	Code to be selected for wholemeal flour only
T112A	Milling – refined flour	Code to be selected for refined (white) flour only
T113A	Milling – bran production	Code to be selected for cereal bran only
T114A	Polishing	Code to be selected for cereal polishing only; it applies to polished (white) rice, oats flakes or barley (pearl barley)
T116A	Sugar production	Extraction of sugar; it applies to sugar produced from cane or sugar beet
T120A	Canning	Code for canned fruit or vegetables, usually in brine (e.g. canned tomatoes, pineapples, beans, table olives). It should also be used for pickled products (e.g. gherkins). The products should be analysed after removing of the brine. Often a clear distinction between canning and preserving is not possible See also T121A 'Preserving'

ProdTreat code ^(a)	Code description	Note
T121A	Preserving	This code should be used for jams and marmalades (e.g. strawberry jam, orange marmalade, apple sauce and ketchup). For products in brine, the use of the code T120A 'Canning' is recommended See also T120A 'Canning'
T122A	Production of alcoholic beverages	This code should be used for beer (in combination with barley 'prodCode', which is the main ingredient) or for spirits produced from fruit, but not for wine made of grapes or other fruits (see also code T123A 'Wine production')
T123A	Wine production	General code for products related to the production of wine made of grapes or other fruits like apple wine, including must. In case must samples are reported, you can specify it in the 'prodText' data element More specific codes for white wine and red wine are available as well (see codes T124A and T125A) This unspecific code can be used to report rosé wine as well. See also T122A 'Production of alcoholic beverages'
T124A	Wine production – white wine	See also T123A 'Wine production'
T125A	Wine production – red wine	See also T123A 'Wine production'
T128A	Cooking in water	Code to be selected for food products that underwent boiling or poaching (e.g. precooked potatoes)
T129A	Cooking in oil (Frying)	For products fried in hot oil (e.g. deep-fried potatoes chips and doughnuts)
T130A	Cooking in air (Baking)	For products that were baked or roasted at a high temperature in air (e.g. bread, roasted coffee beans, baked potato chips or roasted peanuts)
T131A	Dehydration	Applies to dried products (e.g. grapes (raisins), plums, apricots, dates, dry potato flakes, fungi, dried basil leaves etc.) This code should <u>not</u> be used for dried products that correspond with the description in Annex I of Regulation 396/2005 (e.g. dry pulses, tea, herbal infusions such as dried ginger roots, cereals dried to standard moisture content), which should be reported as 'Unprocessed' See also T999A 'Unprocessed' and T132A 'Fermentation', plus Examples 5 and 6
T132A	Fermentation	Fermentation for purposes other than the production of alcoholic beverages; this code applies to, e.g. cabbage and soya sauce (see also T121A 'Production of alcoholic beverages') This code should <u>not</u> be used for fermented tea, fermented cocoa beans, for wine of grapes or other fruits and for fermented milk products. See also T100A 'Unprocessed', T123A 'Wine production' and T134A 'Churning'
T134A	Churning	General code for products obtained from milk of animal origin (only if no more specific codes exist) In case this code is selected, more details on the type of product analysed should be reported in the 'prodText' data element. This code should <u>not</u> be used for pasteurised or sterilised milk (see code T150A)
T152A	Churning – butter	Churning for the sole production of butter of animal origin. Please see also the document Sections 5.18 and 5.19 on the data elements 'fatPerc' and 'exprRes' and Example 18
T153A	Churning – cheese	Churning for the sole production of cheese of animal origin. Please see also the document sections Sections 5.18 and 5.19 on the data elements 'fatPerc' and 'exprRes' and Example 18
T154A	Churning – cream	Churning for the sole production of cream of animal origin Please see also the document Sections 5.18 and 5.19 on the data elements 'fatPerc' and 'exprRes' and Example 18

ProdTreat code ^(a)	Code description	Note
T155A	Churning – yogurt	Churning for the sole production of yogurt or kefir of animal origin. Please see also the document Sections 5.18 and 5.19 on the data elements 'exprRes' and 'fatPerc' and Example 18
T136A	Concentration	For product after removing of a part of the water or other constituents (e.g. for concentrated orange juice or condensed milk) For dry products, use the 'Dehydration' code (T131A) instead
T148A	Wet milling	Code applicable to describe starch (e.g. maize starch and rice starch)
T150A	Milk pasteurisation	This code can exclusively be used for milk of animal origin Pasteurised or sterilised milk should be coded as described here below Animal milk samples (cow, goat, sheep, etc.) that have been pasteurised, filtrated, sterilised and/or subjected to other treatments with the purpose to extend their shelf-life have to be reported with T150A In the data analysis, the results for milk samples reported with T150A 'Milk pasteurisation' will be pooled by EFSA with milk samples reported as 'Unprocessed' milk T999A See also T134A 'Churning' and T151A 'Pasteurisation'
T151A	Pasteurisation	This code can be used for all pasteurised food (e.g. pasteurised eggs), except for pasteurised milk See also code T150A 'Milk pasteurization'
T998A	Freezing	The MRL established under Regulation (EC) No 396/2005 equally applies to fresh/chilled and frozen products as long as the product was not subject to any additional processing. Thus, frozen samples coded with T998A will be considered in the data analysis performed by EFSA as 'Unprocessed' Please note that this code should not be used if the product was frozen after the sampling See also T999A 'Unprocessed'
T999A	Unprocessed	If the food product analysed fully complies with the description in the last column of Regulation (EU) No 752/2014, a product should be reported as 'Unprocessed' For food products that are reported as being unprocessed, the legal limits set in Regulation (EC) No 396/2005 are directly applicable without the need to apply a processing or peeling factors; this applies also to chilled products (e.g. chilled fresh herbs), to fermented tea or to fermented cocoa beans Fresh and chilled samples are considered as 'Unprocessed' samples. Also samples that have been ground, crushed, milled, powdered and/or pulverised have to be coded as 'Unprocessed' samples (code T999A), as long as the process does not involve a separation of a certain fraction (like milling of cereals). For example, the code T999A 'Unprocessed' samples also applies to dry spices marketed, e.g. in glasses. See also T132A 'Fermentation' and T998A 'Freezing'

(a): On the basis of the past experience on the processed food results reported to EFSA, the codes reported in the table are to be considered as the codes most appropriate for the pesticide data collection. However, in exceptional cases, different codes could be selected, as suitable.

Example 9: How to report results for frozen spinach

Data element	Element value (catalogue)	Code description	Note
prodCode	P0252010A (MATRIX)	Spinach	Spinach is classified under vegetables (fresh or frozen), leafy vegetables and fresh herbs, spinach and similar (leaves). The code for the lowest hierarchy level of the food classification has to be selected
prodTreat	T998A (PRODTR)	Freezing	If the sample did not undergo to any other treatment, the code for freezing should be used to describe the product

Pasteurised or sterilised milk should be coded as described below. However, for the data analysis, EFSA will pool the results for processed milk samples reported as T150A with the results reported for unprocessed milk (see Example 10).

Example 10: How to report results for a sample of pasteurised/sterilised milk of animal origin

Data element	Element value (catalogue)	Code description	Note
prodCode	P1020010A (MATRIX)	Milk cattle	
prodTreat	T150A (PRODTR)	Milk pasteurisation	Animal milk samples (cow, goat, sheep, etc.) that have been pasteurised, filtrated, sterilised and/or subjected to other treatments with the purpose to extend their shelf-life have to be reported with T150A. In the data analysis, the results for milk samples reported with T150A will be pooled with milk samples reported as T999A

Example 11: How to report a sample of a pasteurised food (e.g. pasteurised eggs)

Data element	Element value (catalogue)	Code description	Note
prodCode	P1030010A (MATRIX)	Eggs (chicken)	According to Annex I of Regulation 396/2005, the MRL shall be checked against the residue level measured in the whole product after the removal of the shell
prodTreat	T151A (PRODTR)	Pasteurisation	The code 'Pasteurisation' shall not be selected for pasteurised milk, for which the specific 'prodTreat' code T150A ('Milk pasteurisation') shall be chosen
prodText	'Pasteurised free-range eggs from organic farming'		In this data element, details on the nature of the product analysed can be provided (not mandatory)

Finally, please consider that through the SSD data element 'prodText' detailed information can be provided – in particular – in the below listed situations.

- For 'processed' food samples either when the unspecific 'prodTreat' code T100A 'Processed' food is reported or when the following generic 'prodTreat' codes are selected:
 - T104A 'Oil production' (please consider that this code should be used for vegetable oils, e.g. oilseeds and nuts oil). The prodText can be useful to specify what vegetable oil has been tested;
 - T110A 'Milling' that should be used only for food samples for which more specific codes are not available, like for wheat germ or gluten. Please remember also that this code should not be used for minced, ground or chopped products, e.g. ground poppy seed or spices (see code T999A 'Unprocessed' in Table 5 in the following paragraph);
 - T122 'Production of alcoholic beverages' that should be used for beer (in combination with barley, which is the main ingredient) or for spirits produced from fruit, but not for wine from grapes;
 - T123A 'Wine production', which is the general code for wine production; however, more specific codes are available and recommended for the coding of different typology of wine (e.g. white or red). However, if code T123A is selected, the 'prodText' can be used for reporting e.g. 'grape most';
 - T134A 'Churning' (code for the dairy products reporting); in case the more specific codes are not used (T152A, T153A, T154A and T155A for coding samples of butter, cheese, cream, and yogurt, respectively), please provide a detailed description of the sample tested in 'prodText', if considered relevant.

- For 'unprocessed' food samples:
 - If the 'prodCode' code P1100000A 'Fish, fish products' (e.g. 'Trout') or P1200000A 'Crops exclusively used for animal feed' (e.g. 'Wheat straw') are selected, more detailed descriptions in the 'prodText' data element can be provided.
- For 'composite food' samples:
 - The results for this type of food should be reported using the 'prodCode' for the main ingredient. In the field 'prodText', the product tested can be described in more detail (for example, 'Pizza made of wheat flour, tomatoes and cheese').

3.18. Product brand name ('prodBrandName', SSD data element S.18)

This data element, which could be used to report the brand name of the product under analysis is not mandatory nor used by EFSA for its data results analysis. In the past data collections, it was noticed that this free text SSD data element has been used to report commercially sensitive information, considering the recent cases of request for data disclosure and the potential reporting of sensitive information the reporting countries did not wish disclosing and/or were not used by EFSA in its data analysis. Thus, EFSA wishes to recall that in case these data element is filled in, then the information reported will be disclosed upon request under the PAD Regulation (see also Section 1.1).

3.19. Manufacturer ('prodManuf', SSD data element S.19)

This data element which could be used to report the manufacturer of the product under analysis is not mandatory nor used by EFSA for its data results analysis. In the past data collections, it was noticed that this free text SSD data element has been used to report commercially sensitive information, considering the recent cases of request for data disclosure and the potential reporting of sensitive information the reporting countries did not wish disclosing and/or were not used by EFSA in its data analysis. Thus, EFSA wishes to recall that in case this data element is filled in, then the information reported will be disclosed upon request under the PAD Regulation (see also Section 1.1).

3.20. Product ingredients ('prodIngred', SSD data element S.20)

The reporting of the list of ingredients of the composite food items analysed is not mandatory nor used in the pesticide monitoring data collection. Thus, this data element should not be used in the frame of the pesticide residue monitoring data collections. Once the FoodEx2 catalogue will be fully implemented, this data element will become obsolete.

3.21. Product comment ('prodCom', SSD data element S.21)

This data element, which in the past was used to provide further information on the origin of the sample or on the method of production, is not reportable starting with the 2017 pesticide monitoring data collection in 2018. Should any specific comment be provided, the only free text SSD data element that can be used for the pesticide monitoring data collections is prodText (see Section 5.26).

3.22. Year of production ('prodY', SSD data element S.22), month of production ('prodM', SSD data element S.23) and day of production ('prodD', SSD data element S.24)

The reporting of the date of the production of the food samples is not mandatory. In case the date of production is provided, it should be reported as integers (e.g. 2017 for the prodY, 3 for prodM, 19 for prodD).

3.23. Year of expiry ('expiryY', SSD data element S.25), month of expiry ('expiryM', SSD data element S.26) and day of expiry ('expiryD', SSD data element S.27)

The date of expiry refers to the 'best before' date. The reporting of the expiry date of the food sampled is not mandatory; in case the date of production is provided, it should be reported as integers (1 or 2 digits, as appropriate) (e.g. 2017 for the expiryY, 3 for expiryM, 19 for expiryD).

3.24. Sampling year ('sampY', SSD data element S.28), month and day of sampling ('sampM', SSD data element S.29) and ('sampD', SSD data element S.30)

The information on the data of sampling is crucial to check the sample compliance against the pesticide MRL applicable for the sample. Therefore, the full date (day, month and year) of sampling is a mandatory piece of information. It should be reported as integers (1, 2 or 4 digits, as appropriate) (e.g. 2017 for the sampY, 3 for sampM, 19 for sampD). Please see also Section 5.24.

3.25. Sampling programme code ('progCode', SSD data element S.31)

The data element Sampling programme code is optional; reporting countries can use this field to specify national sampling programmes or project under which the sample was taken. No SSD catalogue is needed for this data element. This data element should not be used to report the legal reference of the sampling programme or the type of sampling programme.

Related data elements: 3.26 Programme legal reference ('progLegalRef', SSD data element S.32), 3.28 Type of sampling programme ('progType', SSD data element S.34).

3.26. Programme legal reference ('progLegalRef', SSD data element S.32)

The data element Programme legal reference is mandatory for the pesticide data collection; it is used to specify the legal framework under which the sample was taken and thus defines which MRLs and which RDs are applicable to the sample (see also Section 5.22).

Related data elements: 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18).

Legal limit for the result ('resLegalLimit', SSD data element R.28).

An unambiguous coding is essential in view of the storage of the data in the EFSA DWH, the central repository for all EFSA data collections. Although currently no catalogue is available for this data element, EFSA suggests to use the catalogue developed for SSD2, using the codes as defined in Table 6.

Table 6: Codes to be used to describe the programme legal reference

Element value	Code description	Note
N027A	Sample taken under Regulation (EC) No 396/2005	Code to be used for samples of food products defined in Annex I of Regulation (EC) No 396/2005 (processed and unprocessed products) taken in the framework of the EU-coordinated programme and the national control programmes defined in Article 29 and 30 of this regulation. Also samples taken in the framework of Regulation (EC) No 669/2009 should be coded with N027A
N028A	Samples of food products falling under Directives 2006/125/EC and 2006/141/EC	Directives establishing MRL specific for baby food. It is noted that certain products are marketed as food for infants and young children (e.g. juices). However, as these products would not fall under the baby food legislation, they should be reported under N027A (see also Section 6.1)
N247A	Samples taken under Directive 96/23/EC	Legislative framework for the control of vet drug residues in samples of animal origin (see also Section 6.3)
N018A	Regulation (EC) No 882/2004 ^(a)	Samples not falling under any of the three types of legislation mentioned above (e.g. for reporting results concerning residues of safeners and synergists) (see also Section 6.4)

(a): Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules. OJ L 165, 30.4.2004, p. 1–141.

It should be highlighted that samples taken in the framework of Regulation (EC) No 669/2009⁷ on the increased level of official controls on imports of certain food of non-animal origin should be also reported using the code for Regulation (EC) No 396/2005, since the residue legal limits specified in this legislation are equally applicable to the samples subject to import controls (see Section 3.28 on Type of sampling programme ('progType', SSD data element S.34)).

Related data elements: 3.25 Sampling programme code ('progCode', SSD data element S.31) and 3.28 Type of sampling programme ('progType', SSD data element S.34).

3.27. Sampling strategy ('progSampStrategy', SSD data element S.33)

The data element sampling strategy is a mandatory element for pesticide residue monitoring; the valid options for coding have to be selected from the catalogue SAMPSTR (see Table 7).

Table 7: Codes to be used to describe sampling strategy (SAMPSTR catalogue)

Element value	Code description	Note
ST10A	Objective sampling	For samples that were taken as a surveillance samples (random sampling). For example for the EU-coordinated monitoring programmes samples (for which also the code ST20A could be selected, see Table 9), but also for samples taken under national control programmes where samples were selected without specific targeting towards products or producers that were likely to be non-compliant
ST20A	Selective sampling	For samples taken under the national control programmes, which are targeted towards products from a country where higher MRL non-compliance rate was identified in the past for certain food products
ST30A	Suspect sampling	For risk based sampling, e.g. to enforce provisions of Regulation (EC) No 669/2009 on the increased level of official controls on imported food/feed, for samples taken after RASFF notifications and when the sample is taken from the same consignment that previously was identified as non-compliant or follow-up enforcement samples. The code ST30A should specifically selected when the sampling is targeted towards a given producer, where there is a sufficient suspicion or clear evidence that a sample is not compliant with the legislation

Example 12: How to report a suspect sample, notified under RASFF

Data element	Element value (catalogue)	Code description	Note
prodCode	P0256080-009A (MATRIX)	Basil (holy, sweet)	Please refer to Table 3 for more detail on this MATRIX code
progSampStrategy	ST30A (SAMPSTR)	Suspect sampling	A sample of basil checked for the presence of a specific pesticide residue in the framework of an import control (regulation 669/2009), as a consequence of a RASFF notification or a suspect product taken at wholesaler/retailer level

Related data element: 3.26 Programme legal reference ('progLegalRef', SSD data element S.32).

3.28. Type of sampling programme ('progType', SSD data element S.34)

This data element is mandatory; it is used to discriminate between samples taken in the framework of the EU-coordinated programme as defined in Article 29 of Regulation (EC) No 396/2005 and other sampling programmes. For coding, the catalogue SRCTYP has to be used, taking into account the conventions described in Table 8.

Table 8: Codes to be used to describe the type of sampling programme (SRCTYP catalogues)

Element value	Code description	Note
K005A	Official (National) programme	For coding of samples taken under national control programmes as defined in Article 30 of Regulation (EC) No 396/2005
K009A	Official (EU) programme	Samples taken in the framework of the EU-coordinated programme (EUCP) as defined in Article 29 of Regulation (EC) No 396/2005. For 2017, the EUCP was defined in Regulation (EU) No 480/2013 ^(a) (see also Section 7) If the samples were analysed for more pesticides than described in the monitoring regulation, the sample should be coded with K018A (see below)
K018A	Official (National and EU) programme	This code should be used for samples taken in the framework of Regulation (EU) 480/2013 (EU-coordinated control programme) which were analysed for a wider range of pesticides than requested in the EUCP or for other analytes, such as safeners, synergists, residues of veterinary medicinal products (dual use substances)
K019A	Pesticide EU increased control programme on imported food	This code is used to describe samples that were taken under Regulation (EC) No 669/2009

(a): Commission Implementing Regulation (EU) No 480/2013 of 24 May 2013 amending Implementing Regulation (EU) No 788/2012 as regards the period of analysis of certain pesticides performed on a voluntary basis Text with EEA relevance. OJ L 139, 25.5.2013, p. 4–4.

In Table 9, the valid combinations of codes for the following data elements are reported: Type of sampling programme ('progType', SSD data element S.34)/Programme legal reference ('progLegalRef', SSD data element S.32)/Sampling strategy ('progSampStrategy', SSD data element S.33). Please see also Tables 6–8.

Table 9: Combinations of codes to be used to describe the type of sampling programmes/programme legal reference/sampling strategy (SRCTYP/SAMPSTR catalogues)

		Programme legal reference					
		N027A (Regulation 396/2005)			N028A (Directives 125/2006/EC and 141/2006/EC)	N247A (Directive 96/23/EC)	N018A (Regulation 882/2004)
		EU-coordinated programme	National programmes	Increased import food control	Baby food	Vet medicines	e.g. synergists and safeners
Type of sampling programme	K005A (national programmes)	–	ST10A ST20A ST30A	–	ST10A ST20A ST30A	ST10A ST20A ST30A	ST10A ST20A ST30A
	K009A (EU-coordinated programme)	ST10A ST20A	–	–	ST10A ST20A	–	–
	K018A (EU and national programmes)	ST10A ST20A	ST10A ST20A	–	ST10A ST20A	ST10A ST20A	ST10A ST20A
	K019A (increased control Reg 669/2009)	–	–	ST30A	–	–	–

Related data elements: 3.26 Programme legal reference ('progLegalRef', SSD data element S.32), 3.27 Sampling strategy ('progSampStrategy', SSD data element S.33).

3.29. Sampling method ('sampMethod', SSD data element S.35)

The data element sampling method is mandatory; the catalogue SAMPMD provides the valid codes for this field. Official sampling methods are defined for different food or feed domains. For samples reported to EFSA under the pesticide data collection, the cases summarised in Table 10 are relevant.

Table 10: Codes to be used to describe the type of sampling method (SAMPMD catalogue)

Element value	Code description	Note
NO09A	According to Directive 2002/63/EC ^(a)	For samples taken in the framework of Regulation (EC) No 396/2005
NO14A	According to Regulation 152/2009/EC ^(b)	For the official control of feed
NO10A	According to Commission Decision 97/747/EC ^(c)	For monitoring of certain substances and residues thereof in certain animal products in the framework of Directive 96/23/EC ^(d)
NO01A	Individual/single	To be used for products not covered by above-mentioned sampling methodologies (e.g. for honey) or e.g. for single samples (e.g. one animal or one fruit) which are not representative for a lot/batch
NO08A	Unknown	This code should be used if no information on the sampling method is available

(a): Commission Directive 2002/63/EC of 11 July 2002 establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC. OJ L 187/30, 16.7.2002, p. 1–14.

(b): Commission Regulation (EC) No 152/2009 of 27 January 2009 laying down the methods of sampling and analysis for the official control of feed, OJ L54, p. 1–130.

(c): The Commission Decision mentioned in the SSD catalogue has been updated since the decision has been amended by Commission Decision 98/179/EC (Commission Decision of 23 February 1998 laying down detailed rules on official sampling for the monitoring of certain substances and residues thereof in live animals and animal products, OJ L 65, p. 31–98.

(d): Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products and repealing Directives 85/358/EEC and 86/469/EEC and Decisions 89/187/EEC and 91/664/EEC OJ L 125, 23.5.1996, p. 10–32.

Related data element: 3.26 Programme legal reference ('progLegalRef', SSD data element S.32).

3.30. Number of samples ('sampNum', SSD data element S.36)

This data element is not mandatory (no SSD catalogue is available), as can be populated with a number. In the frame of the pesticide monitoring data collection, this data element does not need to be considered. However, if used, it will be accepted.

The SSD data structure supports individual sample transmissions where each sample provides a single analytical result. Combined samples, where multiple samples may be analysed together to provide a single result, are also allowed. The number of individual samples that was pooled should be reported in this data element. The default value for this field is '1'.

3.31. Lot size ('lotSize', SSD data element S.37) and Lot size unit ('lotSizeUnit', SSD data element S.38)

These two data elements are not mandatory. They are meant for providing the size and unit of the lot from which the sample was taken. For the lot size unit, the catalogue UNIT should be considered for selection the appropriate code.

3.32. Sampling point ('sampPoint', SSD data element S.39)

This element is mandatory and defines the point of the food chain where the sample was taken.

The controlled terminology lists the activities of establishments at different points in the food chain. The list of activities of the sampling points proposed is subdivided into three hierarchy levels, the first of which is intended to identify the main steps in the production/consumption of food.

Table 11: Codes to be used to describe the type of sampling point (SMPNT catalogue)

Element value	Code description	Note
Codes starting with E1	Primary production	Primary production includes both growing crops, rearing of animals and fishery activities
Codes starting with E3	Manufacturing	
Codes starting with E5	Distribution: wholesale and retail sale	
Codes starting with E6	Packaging	

4. Laboratory information

4.1. Laboratory ('labCode', SSD data element L.01)

This field is mandatory for the pesticide monitoring. A unique code to identify each laboratory providing laboratory results should be reported here (i.e. the national laboratory code). This code should be reported consistently for all transmissions of data. This code should also be used when providing information on participation in proficiency tests in the National Summary Report (see Annex A).

4.2. Laboratory accreditation ('labAccred', SSD data element L.02)

This mandatory element indicates whether the laboratories performing the analysis have been accredited as required in Article 12 of Regulation (EC) No 882/2004.

For pesticide monitoring, only two codes from the LABACC catalogue may be used (see Table 12).

Table 12: Codes to be used to describe the laboratory accreditation status (LABACC catalogue)

Element value	Code description	Note
L001A	Accredited	Accredited according to ISO/IEC 17025 for pesticides analysis
L003A	None	For results generated by laboratories not or not yet accredited according to ISO/IEC 17025 for pesticide residues (e.g. when the laboratory is awaiting, the final audit forms the accreditation body)

4.3. Laboratory country ('labCountry', SSD data element L.03)

The reporting on the name of the country where the laboratory is placed is not mandatory. If this information is reported, the catalogue COUNTRY has to be used. According to the business rules, all COUNTRY codes except EU, XD and XE are accepted.

5. Analytical results

5.1. Result code ('resultCode', SSD data element R.01)

This element contains the unique identification number of an analytical result (i.e. the single analytical determination) in the transmitted file. This element is mandatory; it will be used by EFSA during the data validation process as reference for error messages and/or to identify records to be deleted or replaced.

5.2. Year of analysis ('analysisY', SSD data element R.02), Month of analysis ('analysisM', SSD data element R.03) and Day of analysis ('analysisD', SSD data element R.04)

Three data elements are available for coding the year, the month and the day of the food sample analysis. For pesticide monitoring, only the year of the analysis is mandatory. The date (day, month and year) of sampling shall be reported as integers (1, 2 or 4 digits, as appropriate) (e.g. 2017 for the year, 3 for March, 19 for the day).

5.3. Parameter code ('paramCode', SSD data element R.06)

This mandatory data element is used to describe the substance(s) analysed for which the measured result is reported. The PARAM catalogue has been developed for coding this variable; it contains not only the codes for the legal RDs as defined in Regulation (EC) No 396/2005, but also the codes for other type of residues than pesticides (from veterinary medicinal products, food and feed additives, flavourings, nutrients or contaminants etc.), or codes for substances that are a part of the legal RD for pesticides' residues.

It is important to recall that the following three PARAM codes are not selectable for any data collection: RF-XXXX-XXX-XXX='Not in list', RF-XXXX-XXX-X01='Unknown' and RF-XXXX-XXX-X02='Unspecified'.

5.3.1. The MatrixTool

EFSA has developed a supporting tool (i.e. the MatrixTool), which encompasses all the valid, plausible triple combinations of paramCodes/prodCodes/paramTypes specific for the pesticide residues monitoring data collection. The tool addresses the food product covered by Annex I of Regulation (EC) No 396/2005 and baby food. The paramCodes included in the MatrixTool are only those selectable for the pesticide monitoring data collection and are reviewed on yearly basis according on the basis of the changes in the EU legislative requirements for MRL enforcement.

It is strongly recommended that – before data transmission – the data provider consults this tool and check if the coding of its national monitoring results fit with plausible triple combinations above mentioned. If in the PARAM catalogue and/or in the MatrixTool a paramCode for an analysed substance is not listed, then the data provider is invited to inform EFSA on the need to allocate a new PARAM code for the given substance; then, the data provider is asked to indicate the name of the parameter analysed (in English) that is missing on the PARAM catalogue/MatrixTool, along with the ISO common name¹⁶ and/or IUPAC name, the Chemical Abstracts Service (CAS) number and a reference to a source showing the requested parameter is a pesticide or part of a legal RD for pesticides under Regulation 396/2005¹⁷.

The PARAM catalogue is regularly updated with new PARAM codes, as needed. Please note that the major publication of the PARAM catalogue is only performed once per year.¹⁸ In case of last minute, urgent requests for a new PARAM code EFSA could create it; however, this new code will not visible in the published updated PARAM catalogue until the next major release of the PARAM catalogue will be issued.

The paramCodes listed in the MatrixTool are used by EFSA during the data validation step; in case a PARAM code is not included in the tool – but selected by the data provider – the automated validation procedure will return an error message to the data provider.

For feed and fish, no legal RDs are established under Regulation (EC) No 396/2005. For these products, any PARAM code and any selectable paramType (P005A/P004A/P002A) included in the MatrixTool would be selectable.

The MatrixTool is not included in this guidance document, but provided separately as an Excel file.

Related data elements: 3.13 Product code ('prodCode', SSD data element S.13), 5.5 Type of parameter ('paramType', SSD data element R.08), 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18) 5.22 Legal limit for the result ('resLegalLimit', SSD data element R.28).

5.4. Parameter text ('paramText', SSD data element R.07)

The parameter text is no longer reportable SSD data element. It should be left blank for all the records to be transmitted to EFSA. In case any text or value will be inputted in this data element, an error message will be returned to the data provider.

Related data element: 5.3 Parameter code ('paramCode', SSD data element R.06).

¹⁶ A comprehensive list of ISO common names for pesticides can be found under the following link: <http://www.alanwood.net/pesticides/index.html>.

¹⁷ The ISO common name and the CAS number shall not be provided in case of multicomponent residue definitions.

¹⁸ The annual revision of the SSD catalogues (including the PARAM catalogue) can be consulted and downloaded in the EFSA catalogues browser, which is available here: <https://github.com/openefsa/catalogue-browser/wiki> data providers are encouraged to use this new tool to consult the catalogues. For the pesticide residues data collections, on the Main User Interface of the Browser, please select the Pesticide Residues Hierarchy, which will display the only SSD codes selectable for the pesticide residues data collection. Explanations on the use of the Catalogue Browser are provided at the above reported link.

5.5. Type of parameter ('paramType', SSD data element R.08)

An official, agreed classification of the type of pesticide enforcement RDs is not available. However, these RDs can be broadly classified in:

- 'Simple': RDs that contain only the parent compound or one single component/compound;
- 'Multicomponent': RDs that comprise more than one component/compound, for example the parent compound and one or more metabolites.

Official control laboratories are not always in the position to analyse the full multicomponent legal RDs, as required by Regulation (EC) No 396/2005, including e.g. all metabolites or degradation products that are part of definition, e.g. because the analytical standards for metabolites are not commercially available. For the correct interpretation of the analytical results submitted to EFSA, in the framework pesticide data collection, it is essential to know exactly whether a sample was actually analysed for all components of the legal RD or not; thus, the mandatory data element paramType was introduced to this scope and a specific catalogue is available for the correct coding (PRTYP catalogue).

Table 13 explains the codes from the PRTYP catalogue that can be used to describe the different paramType options.

Table 13: Codes to be used to describe type of parameter (PRTYP catalogue)

Element value	Description	Note
P005A	Full legal residue definition analysed for	This code has to be selected when the analytical measurement fully complies with the legal residue definition, for both simple residue definitions or for multicomponent residue definitions, <u>where the sample was analysed for all components</u>
P004A	Sum based on subset	This code has to be selected only when the analytical measurement refers to a Multicomponent legal residue definition AND where <u>not all components have been analysed for</u> P004A is not appropriate for reporting the results concerning simple residue definitions
P002A	Part of a sum	This code has to be selected for the reporting of a single component included in a multicomponent residue definition Results coded with P002A will normally not be included in the data analysis presented in the EU Report on pesticide residues as regards the MRL compliance (see data analysis presented in Sections 2 and 3 of the 2013 report (EFSA, 2015c)). However, for specific data analysis (e.g. for refined consumer's intake calculations), the results labelled with P002A might be used by EFSA. For the EU-coordinated control programme results for multicomponent residue definition, the data providers shall report the analysis results for the analytes that are part of the residue definition separately (with the code P002A), as far as they are measured individually. Finally, for the single component of multicomponent residue definitions (reported with P002A), the result should be expressed in mg/kg for the analyte (without expressing it as defined in the RD)

In the MatrixTool, the valid paramType codes for the different combinations of prodCodes/paramCodes can be found (see Section 5.3.1). Examples for the use of the different codes are outlined below.

Since the results coded with P002A will not be used for the data analysis on MRL compliance, it is important to report the results for incompletely analysed RDs with the P004A code. If necessary, the result needs to be recalculated using molecular weight correction factors (Example 15) to comply with the component specified in the RD ('expressed as').

In addition to the result reported with P005A or P004A, the results for the individual components of a complex RD can be reported using the P002A code (see Example 15).

Example 13: How to report a result for a simple residue definition

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0012-001-PPP (PARAM)	Acephate	Simple residue definition: i.e. the legal definition for enforcement contains only one component
paramType	P005A (PRTYP)	Full legal residue definition analysed	Please note that only P005A is available in the MatrixTool for coding of results for the paramCode for Acephate

Example 14: How to code a result for a Multicomponent legal residue definition, where the sample was analysed for all components covered by the definition

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0139-001-PPP (PARAM)	Dimethoate (sum of dimethoate and omethoate, expressed as dimethoate)	Multicomponent residue definition, i.e. it contains more than one component
paramType	P005A (PRTYP)	Full legal residue definition analysed	If the sample was analysed for both dimethoate and omethoate (recalculated to dimethoate), the code P005A shall be used. For cases where the sample was analysed only for dimethoate or only for omethoate, please see next examples

Example 15: How to code a result for a Multicomponent legal residue definition, where the sample was analysed only for a part of the full definition

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0139-001-PPP (PARAM)	Dimethoate (sum of dimethoate and omethoate, expressed as dimethoate)	Multicomponent residue definition, i.e. it contains more than one component (two components in this example)
paramType	P004A (PRTYP)	Sum based on subset	If the sample was analysed only for dimethoate or omethoate, the result has to be labelled with P004A. If only omethoate was analysed, the result has to be recalculated to dimethoate (as the residue definition specifies 'expressed as dimethoate')

In addition to the result reported in Examples 14 or 15, the results of dimethoate or omethoate alone can be reported as described in Example 16.

Example 16: How to report details on the substances/parts of a multicomponent residue definition, which were actually analysed

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0139-002-PPP (PARAM)	Omethoate	The code for omethoate can be found in the MatrixTool
paramType	P002A (PRTYP)	Part of a sum	P002A has to be selected to report the result for the individual component of the Multicomponent legal definition analysed. The result should be expressed as omethoate and not as indicated in the full definition as dimethoate

Related data elements: 5.3 Parameter code ('paramCode', SSD data element R.06), 5.12 Result LOQ ('resLOQ', SSD data element R.15).

5.6. Analytical method reference code ('anMethRefCode', SSD data element R.09)

This data element is not mandatory. A coding catalogue for this SSD data element is not available. This SSD element is used to provide the analytical method identifier, when validated methods are applied and if an official reference code exists.

5.7. Analytical method code ('anMethCode', SSD data element R.10)

This data element is not mandatory. In case the analytical technique/method used is reported, the correct code has to be selected from the ANLYMD catalogue.

5.8. Analytical method text ('anMethText', SSD data element R.11)

The analytical method text is a not reportable SSD data element. It should be left blank for all the records coded and to be transmitted to EFSA. In case any text or value will be inputted in this data element, an error message will be returned to the data provider.

Related data element: 5.7 Analytical method code ('anMethCode', SSD data element R.10).

5.9. Accreditation procedure for the analytical method ('accredProc', SSD data element R.12)

This data element is not mandatory and is meant to describe the status of validation/accreditation for a combination of food product/parameter (pesticide) analysed. The available codes can be found in the catalogue MDSTAT and their use is summarised in Table 14.

Table 14: Codes to be used to describe the accreditation procedure for the analytical method (MDSTAT catalogue)

Element value	Description	Comment
V001A	Accredited according to ISO/IEC17025	The result was generated with a method fully validated according to the EU guidance document on analytical quality control (European Commission, 2017) and accredited under ISO 17025 for pesticide residue analysis for the pesticide/matrix combinations. Thus, it can be used for methods that were specifically accredited not only for the pesticide/matrix combination (fix scope) but also for results generated by laboratories with flexible scope accreditation
V005A	Internally validated	Method fully validated according to the EU guidance document (European Commission, 2017), but not or not yet accredited under ISO 17025 for pesticide residue analysis (e.g. laboratory is waiting for the final accreditation body visit or certificate, for cases where method is fully validated according to EC document (European Commission, 2017), but accreditation body asks for more stringent requirements than ISO 17025 or for analytical results concerning commodity/pesticide combinations fully validated according to SANCO document but out of the accredited fix scope)
V999A	Not validated	The result was generated with a method that was not validated and is not accredited (e.g. validation was not successful according to SANCO document or for commodity/pesticide combinations that have only been partly validated according to EC document (European Commission, 2017))

5.10. Result unit ('resUnit', SSD data element R.13)

This mandatory data element defines the unit for the following data elements: Result LOQ ('resLOQ', SSD data element R.15), LOD for the result ('resLOD', SSD data element R.14), Result value ('resVal', SSD data element R.18), Result value uncertainty standard deviation ('resValUncertSD', SSD data element R.21) and Result value uncertainty ('resValUncer', SSD data element R.22).

For the pesticide data collection, the only code accepted from the UNIT catalogue is G061A (milligramme/kilogramme), for both solid and liquid samples.

Related data elements: 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18), 5.16 Result value uncertainty standard deviation ('resValUncertSD', SSD data element R.21).

5.11. LOD for the result ('resLOD', SSD data element R.14)

The 'resLOD' (the numerical value of the Limit of Detection) is not a mandatory element for the pesticide monitoring data collection. If the limit of detection (LOD) values are available at national level, it is recommended to report them. Please note that, if reported, the resLOD has to be reported always in addition to the 'resLOQ' value. The information would allow performing additional data analysis (see also Section 5.21 on 'resType').

In general terms, the LOD is the lowest concentration that can be determined to be statistically different from a 'blank' analytical result. The LOD shall always be expressed in mg/kg.

Related data elements: 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.21 Type of result ('resType', SSD data element R.27).

5.12. Result LOQ ('resLOQ', SSD data element R.15)

This data element is mandatory. The data provider has to report the limit of quantification (LOQ) of the analytical method used to analyse the sample described with the combination of the data elements prodCode/prodTreat for the parameter described in the paramCode. The numerical LOQ (expressed always as mg/kg) has to be provided for each analytical determination. The same is applicable for screening methods (please see also Section 5.21 on the Type of result ('resType', SSD data element R.27)).

The LOQ is the lowest validated residue concentration or mass of the analyte that has been validated with acceptable accuracy by applying the complete analytical method, which can be quantified and reported by routine monitoring with validated methods (see Regulation also (EC) No 396/2005). The LOQ is often referred to as the Reporting Level.¹⁹

In the past (EFSA, 2015c), EFSA recommended to harmonise the approach on how to report results for Multicomponent RDs (RDs which contain more than one compound/component). On 1 December 2015, Member States took note of a working document on the summing up of LOQs in case of *complex* (i.e. Multicomponent) RDs (SANCO/12574/2014 rev.5²⁰); according to this document, the provisions described are applicable starting from the pesticide-monitoring data generated in 2017 and transmitted to EFSA in 2018.

According to the above SANCO document, the data provider has to report a LOQ for each of the compounds analysed for to enforce the legal RD. In the document 'EFSA_RD_classification document' (version 02) from December 2017,²¹ the classification of all the legal RDs has been finalised. The legal RD have been classified into two different types: 'Simple' and 'Multicomponent' (see Section 5.5 on the Type of parameter ('paramType', SSD data element R.08)).

In line with the SANCO document above mentioned, please find here below reported the provisions for the reporting of the 'resLOQ' according to the RD type:

- For 'Multicomponent' RD, the individual LOQ for each component of that RD (which is a mandatory data element) and a summed LOQ, which is calculated by the reporting country, should be reported. If not calculated by the data provider (i.e. not reported to EFSA), the summed resLOQ can be filled with the default value equal to '99999'. In case of Multicomponent RD, for the analysed residue, the data provider has to select the appropriate paramType code (P005A or P004A) depending if the RD has been fully enforced or not (see also Section 5.5. on the paramType selection). The valid paramType codes reportable for a given RD (i.e. for a give paramCode) are also defined in the MatrixTool (see also Section 5.3.1 on The MatrixTool).
- For 'Simple' RD, the data provider should report a single resLOQ and the code for the RD in combination with paramType=P005A.

¹⁹ The reporting level has been defined in the Appendix of the 'Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed' (European Commission, 2017) as the lowest level at which residues will be reported as absolute numbers. It is equal to or higher than the LOQ. For EU monitoring purposes where samples for surveys are analysed over a 12-month period, the same reporting limit should be achievable throughout the whole year.

²⁰ https://ec.europa.eu/food/sites/food/files/plant/docs/pesticides_mrl_guidelines_wrkdoc_12574.pdf

²¹ <https://dms.efsa.europa.eu/otcs/cs.exe/link/19217850>

- However, in some cases considered as Simple RD and depending on the analytical method applied (e.g. Single Residue Method or Multi Residue Methods), a laboratory might have enforced the RD including the parent compound and another components in its analytical scope.²² In these cases, individual component resLOQ could be reported (either the calculated sum of the single LOQs or using the default value of '99999'); in these cases, the data provider will need to report the paramType with the two possible codes: P004A or P005A in accordance with its interpretation of the RD (Multicomponent vs. Simple RD) and/or whether the RD has been followed completely or not.

The classification of the legal residues definition applicable in 2017 has been finalised in December 2017, after two rounds of consultation of the national experts. This classification is provided separately, in Excel document. After the first year of implementation of the SANCO working document SANCO/12574/2014, the current classification of the RDs into Simple versus Multicomponent will be revised for future data collections and after a national experts' consultation, if and where appropriate. For the 2017 data collection, no business rules will be applied on the summed LOQ.

Example 17: How to report the resLOQ value for a multicomponent residue definition

Data element	Element value (catalogue)	Code description	Note
paramCode	RF-0020-001-PPP (PARAM)	Aldicarb (sum of Aldicarb, its sulfoxide and its sulfone, expressed as Aldicarb)	Multicomponent residue definition (more than one component/compound included in the legal RD) Aldicarb LOQ = 0.007 mg/kg Aldicarb-sulfone LOQ = 0.007 mg/kg Aldicarb-sulfoxide LOQ = 0.007 mg/kg
resLOQ	0.021		To be in line with the procedure for setting MRLs, the individual LOQs for the components of the residue definition should be summed up Overall LOQ for the legal residue definition = $0.007 + 0.86 \times 0.007 + 0.92 \times 0.007 = 0.019$

Related data elements: 5.5 Type of parameter ('paramType', SSD data element R.08), 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.21 Type of result ('resType', SSD data element R.27).

5.13. Result value ('resVal', SSD data element R.18)

The data element resVal is a mandatory field if the pesticide analysed (paramCode) was found in concentrations at or exceeding the LOQ (i.e. resType is VAL; please refer also to see Section 5.21 Type of result ('resType', SSD data element R.27)). It should be left blank for determinations lower than the resLOQ (resType is LOQ).

The measured residue concentration of the paramCode for the product analysed and described in prodCode, prodTreat has to be expressed in mg/kg. Normally, the result of a pesticide analysis should not be corrected for the recovery (for more details, see Sections 5.15 and 5.14).

For processed products in general, the results should be reported for the sample analysed, i.e. the processed product, without any recalculation of the result to the unprocessed product. The same applies to the two data elements resLOQ and resLOD.

It should be highlighted that duplicate results (i.e. results of replicate analysis of the same sample) are not accepted. If the same sample was analysed (same test portion) by means of different analytical methods, the result derived with the most accurate or reliable analysis has to be reported. Where samples were analysed with equally accurate techniques, the mean value should be reported. The mean result shall also be reported where different subsamples were analysed.

If a sample was analysed with screening methods, the data element resVal should be left blank because for screening methods only negative results would be accepted (results below the LOQ, see also Section 5.21 Type of result ('resType', SSD data element R.27)).

²² As an example: amitraz, whose RD is 'Amitraz including the metabolites containing the 2,4 -dimethylaniline moiety, expressed as amitraz', is mainly enforced by national laboratories using a Multiple Residue Method; these methods analysing separately amitraz, DMF and DMPF, but not other components/metabolites. However, EFSA understands that the proper way to enforce the RD set for Amitraz is to use a Single Residue Method, degrading and quantifying all components (amitraz and all metabolites) to 2,4 -dimethylaniline, and then express it as amitraz. If a Single Residue method is applied, then the RD would be considered as Simple; if a Multiple Residue Method is used, then the RD should be considered as Simple.

Related data elements: 3.1 Laboratory sample code ('labSampCode', SSD data element S.01), 5.10 Result unit ('resUnit', SSD data element R.13), 5.14 Result value recovery ('resValRec', SSD data element R.19), 5.15 Result value corrected for recovery ('resValRecCorr', SSD data element R.20), 5.21 Type of result ('resType', SSD data element R.27).

5.14. Result value recovery ('resValRec', SSD data element R.19)

The data element is mandatory if the residue result reported in the field resVal was adjusted for recovery ('Y' in the field resValRecCorr); in this case the recovery obtained in the method validation (expressed as percentage of the recovery, e.g. for 65 for 65 % recovery) used to recalculate the result has to be reported.

Related data elements: 5.13 Result value ('resVal', SSD data element R.18), 5.15 Result value corrected for recovery ('resValRecCorr', SSD data element R.20).

5.15. Result value corrected for recovery ('resValRecCorr', SSD data element R.20)

This data element is not mandatory. It is used to indicate whether a result reported in the data element resVal was corrected for the analytical recovery or not. According to the quality control guidance document (European Commission, 2017), normally residue data should not be adjusted for recovery, if the mean recovery obtained in the method validation for the matrix is in the range of 70–120%. In these cases, the field should be blank or filled with 'N', meaning that no correction for recovery was applied. However, if the recovery was not within the acceptable range and the analytical result was corrected for the analytical recovery, the field should be labelled with 'Y' and the field resValRec has to be completed.

Related data elements: 5.13 Result value ('resVal', SSD data element R.18), 5.14 Result value recovery ('resValRec', SSD data element R.19).

5.16. Result value uncertainty standard deviation ('resValUncertSD', SSD data element R.21) and Result value uncertainty ('resValUncer', SSD data element R.22)

These data elements are not mandatory for the pesticide data collection. The data elements were created to report the standard deviation for the uncertainty measure and the expanded uncertainty value (usually 95% confidence interval) associated with the measurement (expressed in mg/kg). For pesticide residues, the result reported in the data element Result value ('resVal', SSD data element R.18) should not be corrected for the measurement uncertainty; thus, the data elements should be left blank. Normally, a 50% default measurement uncertainty is applied at national level for compliance check.

Related data elements: 5.13 Result value ('resVal', SSD data element R.18), 5.24 Evaluation of the result ('resEvaluation', SSD data element R.30).

5.17. Percentage of moisture in the original sample ('moistPerc', SSD data element R.23)

Although this data element is not mandatory, it should be completed for processed products described with the product treatment code T131A (Dehydration) or T136A (Concentration) (see Section 3.17.2).

The moisture of the sample should be expressed as percentage of water in the sample (w/w, e.g. 8% moisture for dehydrated chilli or 22% moisture for orange juice concentrate). This information should be used to recalculate the legal limits for processed products (see also Section 5.22). The result of the pesticide analysis should be reported for the product as analysed (e.g. residue concentration measured in the dehydrated raisins) without adjustment for the dehydration.

Related data elements: 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18).

Legal limit for the result ('resLegalLimit', SSD data element R.28).

5.18. Percentage of fat in the original sample ('fatPerc', SSD data element R.24)

This data element is not mandatory and is not relevant for unprocessed commodities of plant origin. For processed plant products, unprocessed and processed products of animal origin, this data element may be relevant since the residue concentration in the samples analysed may be influenced by the fat content of the product (e.g. accumulation of fat soluble pesticides in the fraction with higher fat content compared with the unprocessed product).

The information on the fat content is of high importance for milk and milk-derived products, in particular for pesticide RDs marked as fat soluble (indicated by the suffix 'F' in the MRL legislation and in the EFSA MatrixTool) because the MRL values set in Regulation (EC) No 396/2005 apply to milk with a default fat content of 4%. For raw milk of other species than cows, the MRL value shall be adjusted proportionally according to the fat content of the raw milk of that species. Also, for processed milk products (e.g. cheese and butter), an adjustment of the MRL is necessary, taking into account the fat content of the product. Thus, for checking MRL compliance for fat soluble residues, the fat content of the sample analysed has to be known (see also Section 5.24). For cheese and other milk products, the fat content should be expressed as percentage of the whole product (see also Example 18) and not the fat content in the dry matter; please note that the fat content reported on the labels of cheese is often expressed on dry matter basis.

If no fat content is reported for milk and milk products reported with 'exprRes' the code B001A ('Whole weight basis'), EFSA will assume the sample analysed contained 4% fat (see Section 5.19 on the Expression of result ('exprResCode', SSD data element R.25).

Thus, the data providers should carefully consider the following directions:

- If results on milk samples (P1020000A, P1020010A, P1020020, P1020030A, P1020040 or P1020990A) are reported in combination with 'exprRes' B001A ('Whole weight basis') and if the 'fatPerc' is not reported, EFSA will assume a fat content equal to 4%.
- If results on egg samples (P1030000A, P1030010A, P1030020A, P1030030A, P1030040A or P1030990A) are reported in combination with 'exprRes' B001A ('Whole weight basis') and if the 'fatPerc' is not reported, EFSA will assume a fat content equal to 10%.
- If the results for fat soluble pesticides in milk/egg samples are reported on whole weight basis (code B001A), then the 'fatPerc' can be reported for milk (including processed milk products) or eggs (including processed eggs) in cases where the fat content is different than the default fat content of milk (i.e. 4%) or eggs (i.e. 10%).

Related data elements: 5.19 Expression of result ('exprResCode', SSD data element R.25), 5.24 Evaluation of the result ('resEvaluation', SSD data element R.30).

5.19. Expression of result ('exprResCode', SSD data element R.25)

For this mandatory data element, only three codes can be selected from the EXRES catalogue: B001A ('Whole weight'), B003A ('Fat weight') and B007A ('Reconstituted product'). The selection of the code B003A can only be used to report fat soluble pesticides (indicated by the suffix 'F' in the MRL legislation and in the EFSA MatrixTool) in combination with a few prodCodes (MATRIX catalogue) for certain animal products and only under certain conditions (please refer to Table 15 and Example 18).

Table 15: Codes to be used to describe how the result of the analytical determination is expressed (EXRES catalogue)

Element value	Code description	Note
B001A	Whole weight	This code can be used for all products (unprocessed and processed) and for which the provisions of Regulation (EC) No 396/2005 apply. If the code B001A is used, the results should be expressed for the product analysed and described with the data elements 'prodCode' and 'prodTreat'

Element value	Code description	Note
B003A	Fat weight	<p>The code B003A can only be used for <u>fat soluble pesticides</u> in combination with the following prodCodes (MATRIX catalogue):</p> <ul style="list-style-type: none"> • P102000A or a subcode: milk and products obtained from milk of animal origin, e.g. butter, cheese and yogurt. • P103000A or a subcode: eggs and processed products derived from eggs. <p>Results reported in combination with the code B003A have to be expressed on the basis of the fat content of the product analysed. For more guidance, please see Example 18. If the code B003A is selected, then the numerical value of the fat percentage in the original sample can be reported (non mandatory) in the data element 'fatPerc'</p>
B007A	Reconstituted product	<p>This code can only be used for the reporting of results for food products for infants and young children (that are covered by Directive 2006/125/EC and Article 10(4) of Directive 2006/141/EC and their amendments) that are consumed only after dilution/reconstitution. In this case, the analytical result should be expressed for the product reconstituted according to the instructions of the manufacturer reported on the label (see Article 7(4) of Directive 2006/125/EC and Article 10(4) of Directive 2006/141/EC)</p>

Example 18: How to report the results for processed milk products (e.g. butter) for a fat soluble pesticide with an MRL above the Limit of Quantification (LOQ)

Data element	Element value (catalogue)	Code description	Note
prodCode	P1020010A (MATRIX)	Milk (cattle)	
prodTreat	T152A (PRODTR)	Churning – butter	Code to be used exclusively for butter samples of animal origin
paramCode	RF-0237-001-PPP (PARAM)	Hexachlorobenzene	It is noted that the legal residue definition for hexachlorobenzene is labelled with the suffix (F) in the MRL legislation (i.e. this pesticide is lipophilic); the results can be reported on fat basis (code B003A for data element 'exprRes') or on whole weight basis (code B001A). In this example, the result is reported on fat basis
resLOQ	0.01		Numerical value for the LOQ of the analytical method used to analyse the sample and expressed in mg/kg fat. If for 'exprRes' the code B003A is used, the 'resLOQ' also refers to the LOQ for fat (not recalculated to milk)
resLOD	0.005		Not mandatory information, but it is recommended to report it if available. Similar to the resLOQ, resLOD should refer to the LOD for fat (not recalculated to milk)
resVal	0.3		The residue concentration measured in the sample (expressed on fat basis, i.e. as mg/kg fat)
resType	VAL		Residue numerically quantified above the resLOQ
resLegalLimit	0.25		The hexachlorobenzene MRL for milk is 0.01 mg/kg. If the result is reported on fat basis (B003A in the 'exprRes' data element), the MRL has to be recalculated to milk fat using a factor of 25 (MRL set for milk with default fat content of 4%). Then, in the data element 'resLegalLimit', the recalculated limit of $0.01 \times 25 = 0.25$ should be reported

Data element	Element value (catalogue)	Code description	Note
fatPerc	80		If for the data element 'exprRes' the code B003A is used, the sample as analysed is considered made up of 100% fat (isolated fat from the original sample) The data element 'fatPerc' refers to fat percentage in the original sample taken, and not the analysed fat portion of the sample. Thus, in this example, the 'fatPerc' could be e.g. 80%. The 'fatPerc' shall be reported with a figure greater than zero, but below or equal to 100 Please note that for results reported with the 'exprRes' code B003A, the numerical value of the fat percentage in the original sample can be reported on voluntarily basis. See also Section 5.18
exprRes	B003A (EXRES)	Fat weight	The code B003A can be used only for processed/unprocessed milk products and for processed/unprocessed eggs for pesticides that are labelled as fat soluble in the EU pesticide MRL legislation
resEval	J031A (RESEVAL)	Compliant due to measurement uncertainty	The residue level measured in the fat portion of the sample (0.30 mg/kg fat) is greater than the MRL for milk recalculated to milk fat (0.25 mg/kg fat), but below the MRL taking into account the analytical method uncertainty of 50%
prodText	Butter		Free text data element (voluntarily) to be used to describe in detail the nature of the product analysed

The above example (Example 18) would also apply for the reporting of the results of fat soluble pesticides analysed in the unprocessed (raw) milk and processed/unprocessed egg samples, with the only difference being the appropriate selection of the codes for the SSD data elements prodCode, and prodTreat, as appropriate.

The code B001A shall be used for milk and eggs not only for pesticides that are not fat soluble (see Example 19) but also for fat soluble substances.

Example 19: How to report the results for processed milk products (e.g. cheese)

Data element	Element value (catalogue)	Code description	Note
prodCode	P1020010A (MATRIX)	Milk (cattle)	
prodTreat	T153A (PRODTR)	Churning – cheese	To be used for cheese samples obtained from milk of animal origin only
paramCode	RF-0237-001-PPP (PARAM)	Hexachlorobenzene	It is noted that the legal residue definition for hexachlorobenzene is labelled with the suffix (F) in the MRL legislation; thus, the results can be reported on fat basis (code B003A for data element 'exprRes') or on whole weight basis (B001A). In this example, the result is reported on fat basis
resLOQ	0.05		Numerical value for the LOQ of the method used to analyse the sample. If for exprRes the code B003A is used, the 'resLOQ' also refers to the LOQ for milk fat (not recalculated to milk)
resVal	0.7		The residue concentration measured in the sample (expressed on fat basis, i.e. as mg/kg fat)
resLegalLimit	0.25		The hexachlorobenzene MRL for milk is 0.01 mg/kg. If the result is reported on fat basis (B003A in the 'exprRes' data element), the MRL has to be recalculated to milk fat using a factor of 25 (standard fat content for milk: 4–100% fat). Then, in the data element resLegalLimit, the recalculated limit of $0.01 \times 25 = 0.25$ should be reported

Data element	Element value (catalogue)	Code description	Note
fatPerc	48		If for the data element 'exprRes' the code B003A is used, the sample as analysed is considered made up of 100% fat (isolated fat from the original sample). However, the data element fatPerc refers to fat percentage in the <u>original sample taken</u> , and not the analysed fat portion of the sample. Thus, in this example, the fatPerc should be 48% (see also below the free text reported for the data element prodText). The fatPerc shall be reported with a figure greater than zero, but below or equal to 100. Please note that for results reported with the exprRes code B003A, the numerical value of the fat percentage in the original sample can be provided on voluntarily basis
exprRes	B003A (EXRES)	Fat weight	The code B003A can be used only for processed/unprocessed milk products and for processed/unprocessed chicken eggs for pesticides that are labelled as fat soluble
resEval	J003A (RESEVAL)	> maximum permissible quantities	The residue level measured in the fat portion of the sample (0.7 mg/kg fat) is greater than the MRL for milk recalculated to milk fat (0.25 mg/kg fat)
prodText	Sample tested: Camembert cheese with 48% fat in dry matter		Any further information that describes in detail the nature of the product analysed can be reported in this field
resComm	A factor of 25 has been applied to recalculate the milk MRL to the legal limit for the milk fat		If a PF has been applied to recalculate the MRL, this factor can be reported in this data element. Any further information, considered relevant for the interpretation of the result can be reported in this field

Example 20: How to report results for processed products (e.g. wild dried mushrooms)

Data element	Element value (catalogue)	Code description	Note
prodCode	P0280020A (MATRIX)	Wild fungi	
prodTreat	T131A (PRPTR)	Dehydration	
moistCont	9		For dehydrated products, the moisture content of the sample should be reported. Although the field is optional, it is important for dehydrated products
exprRes	B001A (EXRES)	Whole weight	The only exprRes code accepted as valid for this food sample
prodText	Sample of <i>Boletus edulis</i>		
resComm	PF 10 used for MRL compliance		This data element can be used to report the e.g. processing factor (PF) that was used for checking MRL compliance

Example 21: How to report the results for swine muscle

Data element	Element value (catalogue)	Code description	Note
prodCode	P1011010B (MATRIX)	Muscle (swine)	
prodTreat	T999A (PRPTR)	Unprocessed	
fatPerc	3 or blank		Optional information. The fat content of swine muscle does not have to be reported. Information on the fat content for muscle, liver, kidney or other animal offal (any species) will not be taken into account by EFSA for the assessment, e.g. for assessment of MRL compliance etc
exprRes	B001A (EXRES)	Whole weight	B001A is the only code to be used for expressing the result. Thus, the results have to be expressed for swine muscle, and <u>not</u> for fat contained in swine muscle or for meat (mixture of muscle and fat)

Example 22: How to report the results for swine fat

Data element	Element value (catalogue)	Code description	Note
prodCode	P1011030A (MATRIX)	Fat (swine)	For swine fat and fat of other species, the new food classification (Regulation (EC) No 212/2013) did not bring any changes. Thus, the PARAM code used in the previous years allocated for the swine fat and fat of other species is still valid
prodTreat	T999A (PRPTR)	Unprocessed	
fatPerc	85		The fat content of swine fat does not have to be reported on a mandatory basis. Any information reported in this field will not be taken into account by EFSA for the assessment, e.g. for assessment of MRL compliance
exprRes	B001A (EXRES)	Whole weight	The only exprRes code accepted as valid

Example 23: How to report the results for olive oil

Data element	Element value (catalogue)	Code description	Note
prodCode	P0402010A (MATRIX)	Olives for oil production	
prodTreat	T104A (PRPTR)	Oil production	Code recommended for oil production
fatPerc	99		Not mandatory data element. Any information reported in this field for vegetable oils will not be taken into account by EFSA for the assessment. For MRL compliance, default processing factors will be used unless specific processing factors are available for the relevant residue definition
exprRes	B001A (EXRES)	Whole weight	The only exprRes code accepted. The result should not be recalculated to the unprocessed olives
resComm	PF 2 used for MRL compliance		If specific processing factors (PF) are available, they can be reported in this field. Otherwise, default processing factors should be used for checking MRL compliance

Example 24: How to report the results for chicken eggs for a fat soluble pesticide with an MRL at the LOQ

Data element	Element value (catalogue)	Code description	Note
prodCode	P1030010A (MATRIX)	Eggs (chicken)	
prodTreat	T999A (PRODTR)	Unprocessed	
paramCode	RF-0263-001-PPP (PARAM)	Lindane (Gamma isomer of hexachlorocyclohexane (HCH))	The residue definition for lindane is labelled with the suffix '(F)' in the MRL legislation; thus, the results can be reported on fat basis (code B003A) for data element 'exprRes'
resLOQ	0.05		Numerical value for the LOQ of the method used to analyse the sample. If for the data element 'exprRes', the code B003A is used, the data element 'resLOQ' also refers to the LOQ for fat in chicken products (thus, not recalculated to whole chicken eggs)
resVal	0.07		The residue concentration measured in the fat portion isolated from the original sample (expressed as mg/kg fat)
resLegalLimit	0.083		The lindane MRL for chicken eggs with a standard fat content of 10% is 0.01 mg/kg. In this example, the legal limit should be recalculated and reported to 100% fat (B003A in 'exprRes') by multiplying the legal limit by the appropriate factor taking into account the actual fat content (see data element fatPerc; thus, in this example, the recalculation factor equals to 8.3)
fatPerc	12		The fat content in the original sample taken can be reported on voluntarily basis
exprRes	B003A (EXRES)	Fat weight	Please note that the code B003A can be used only for milk products and for chicken egg-based products for pesticides that are labelled as fat soluble
resEval	J002A (RESEVAL)	≤ maximum permissible quantities	The residue level measured in the fat portion of the sample (0.07 mg/kg fat) is lower than the MRL for chicken eggs recalculated to egg fat (0.1 mg/kg fat)
resComm	A factor of 8.3 has been applied to recalculate the chicken egg MRL to the legal limit for the egg fat		Any further information considered relevant for the interpretation of the result can be reported in this free text field

Related data elements: 3.13 Product code ('prodCode', SSD data element S.13), 3.17 Product treatment ('prodTreat', SSD data element S.17), 5.13 Result value ('resVal', SSD data element R.18), 5.18 Percentage of fat in the original sample ('fatPerc', SSD data element R.24).

5.20. Result qualitative value (ResQualValue, SSD data element R.26)

For the pesticide monitoring data collection, this data element is not mandatory nor used. However, if it is reported that EFSA will not rejected it. For this data element, the catalogue POSNEG should be used to select the appropriate code.

5.21. Type of result ('resType', SSD data element R.27)

This data element is mandatory. For the pesticide-monitoring reporting, four codes are selectable for the type of result (VALTYP catalogue). The description of the codes and the cases where to use them can be found in Table 16. In the future, the results reported with the 'resType' LOD will be used

by EFSA to perform more detailed data analysis (see also Section 5.13 on the reporting of the value of the analytical result).

Table 16: Type of Result codes (VALTYP catalogue) selectable for the pesticide residue data coding

VALTYP code	Code description	Note
VAL	Numerical Value	If the residue specified in the field paramCode was quantified at or above the LOQ, the data element must be completed with the code 'VAL'. Thus, the numerical value of determination reported in the data element resVal has to be equal or greater than the LOQ of the analytical method reported in the data element 'resLOQ'
LOQ	Non Quantified Value (< LOQ)	If the measured residue concentration was below the LOQ, then the element resType shall be completed with the code 'LOQ'. In this case, the data element 'resVal' should be left blank
LOD	Non Detected Value (< LOD)	If the residue is not detected, the element 'resType' shall be completed with the code 'LOD'. In this case, the data element 'resVal' should be left blank and the data element resLOD should be used to report the numerical value of the Limit of detection
BIN	Qualitative Value (Binary)	If a sample was analysed with a screening method and the result was below the LOQ, the result type has to be labelled with BIN. In this case, the data element 'resVal' should be left blank. In the field 'resLOQ', the reporting value of the screening method (expressed in mg/kg) should be reported

Related data elements: 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18).

5.22. Legal limit for the result ('resLegalLimit', SSD data element R.28)

This data element of the SSD specifies the source of the legal limit used for compliance check (i.e. the legal limit applicable at the time of sampling). Depending under which legal framework the sample was taken (see Section 3.26), the legal limits (always expressed in mg/kg) should be reported as outlined in Table 17. The reporting of this data element is mandatory for results concerning food/pesticide combinations for which the EU MRL has changed in the course of the year (only for unprocessed food samples and only if the value in the data element 'Result type' (resType) is equal to a 'Numerical value' (VAL). If the data element is left blank in this situation, an error message will be triggered.

EFSA will validate this information against the MRL database derived from the online version of the EU MRL database.

Table 17: Legal limits to be reported in data element resLegalLimit

Element value	Note
MRLs set in Regulation (EC) No 396/2005	<p>For results that are checked against the MRL of Regulation (EC) No 396/2005, the relevant MRL from this legislation has to be reported. If the field is left blank and data element progLegalRef (Section 3.26) was coded with N027A, EFSA will assume that the MRL of Regulation (EC) No 396/2005 in place at the beginning of the monitoring year was applicable</p> <p>For food products organically produced and for imported products, the MRLs established in Regulation (EC) No 396/2005 are equally applicable</p> <p>For processed products derived from food falling under the pesticide MRL legislation, the recalculated MRL, taking into account the appropriate processing factor should be reported (see Example 20)</p> <p>For composite food, the calculated MRL taking into account the composition of the product should be reported, as far as feasible (see Example 26)</p>

Element value	Note
MRLs set in Directives 2006/125/EC and 2006/141/EC	For baby food as defined in Directives 2006/125/EC and 2006/141/EC (coded with N028A in the data element progLegalRef), the baby food MRLs should be reported (i.e. the default MRL of 0.01 mg/kg or the specific MRLs set for a number of pesticides). Since the legal limits refer to the reconstituted products, no recalculation of the legal limit considering the dilution factor derived from the label describing the preparation of the food ready for consumption would be required (see also Section 5.13. on Result value ('resVal', SSD data element R.18) Result value ('resVal', SSD data element R.18), Section 5.24 on Evaluation of the result ('resEvaluation', SSD data element R.30) and Section 6.1 Baby food)
MRLs set in Directive 96/23/EC	For animal products taken in the framework of Directive 96/23/EC (i.e. samples coded with N247A in the data element progLegalRef), the legal limits of Regulation (EU) No 37/2010 ^(a) applicable at the sampling date should be reported
National limits or legal limits set in other legislative frameworks	Samples not falling under any of the legislation mentioned above, any national limits or EU legal limits set in the framework of another legal framework should be reported. The source of the legal limit can be further specified in the data element 5.23 Type of legal limit ('resLegalLimitType', SSD data element R.29)

(a): Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin. OJ L 15, 20.1.2010, p. 1–72.

Related data elements: 5.23 Type of legal limit ('resLegalLimitType', SSD data element R.29).

5.23. Type of legal limit ('resLegalLimitType', SSD data element R.29)

This data element is not mandatory. In the case of pesticide monitoring, the code W002A (MRL) from the LMTTYP catalogue would be expected to be the most frequently used code that should be selected not only for samples taken in the frame of Regulation (EC) No 396/2005 (except feed and fish) but also for baby food samples and samples taken under Directive 96/23/EC (see also Section 3.26). In case no code is selected for this data element, by default EFSA assumes that the code W002A is the applicable one.

As alternative option for this data element, the code W990A (National or local limit) can be selected to indicate that the result was compared with a national legal limit. This value would however not be acceptable for food products/parameters falling under EU legislations (e.g. Regulation (EC) No 396/2005 (see Section 5.3.1 on the MatrixTool, or other sectorial legislation specifying legal limits).

Related data elements: 3.26 Programme legal reference ('progLegalRef', SSD data element S.32), 5.3.1 The MatrixTool.

5.24. Evaluation of the result ('resEvaluation', SSD data element R.30)

This element is mandatory for the pesticide-monitoring data collection; it should provide the judgement of the reporting country concluding whether the result reported in the field resVal was considered exceeding the legal limit that is applicable to the sample. The only valid codes to be used (RESEVAL catalogue) are described in Table 18.

Table 18: Codes to be used for describing MRL compliance of a result

Element value	Description	Note
J002A	≤ maximum permissible quantities	This code has to be used if the residue concentration measured in the sample and reported in the data element resVal was numerically below or at the MRL applicable for this determination (i.e. the MRL reported in resLegalLimit)
J003A	> maximum permissible quantities	This code has to be used where the result was found clearly exceeding the legal limit (taking into account the measurement uncertainty)
J031A	Compliant due to measurement uncertainty	Results that numerically exceeded the legal limit, but for which no legal sanctions were imposed taking into account the measurement uncertainty

Element value	Description	Note
J029A	Result not evaluated	<p>To be used for results for which the reporting country did not assess the compliance/non-compliance, e.g.</p> <ul style="list-style-type: none"> for products for which no EU nor national MRLs are in place (e.g. feed, fish, composite food), or for substances for which no EU or national MRLs are in place (e.g. synergists), or for determinations that are labelled with P002A in the data element paramType, or if the analytical method was not sensitive enough to check MRL compliance (LOQ > MRL)

On data transmission, EFSA performs some data plausibility cross checks among the SSD data elements on the result evaluation ('resEvaluation'), the numerical value of both the reported quantified residue ('resVal') and the reported MRL for the given combination pesticide/food item tested ('resLegalLimit'), if this information is reported. In case the MRL is not reported by the data provider – which is almost always the case – then EFSA automatically checks the plausibility of the reported information taking into consideration the MRL applicable at the day of sampling; this check is performed considering only the 'Unprocessed' food samples and by using the online EU MRL database in case the result legal limit (which is not mandatory) is not reported.

In Figure 1, the different cases are illustrated graphically, while in Examples 25 and 26, some practical examples for processed and composite food samples can be found.

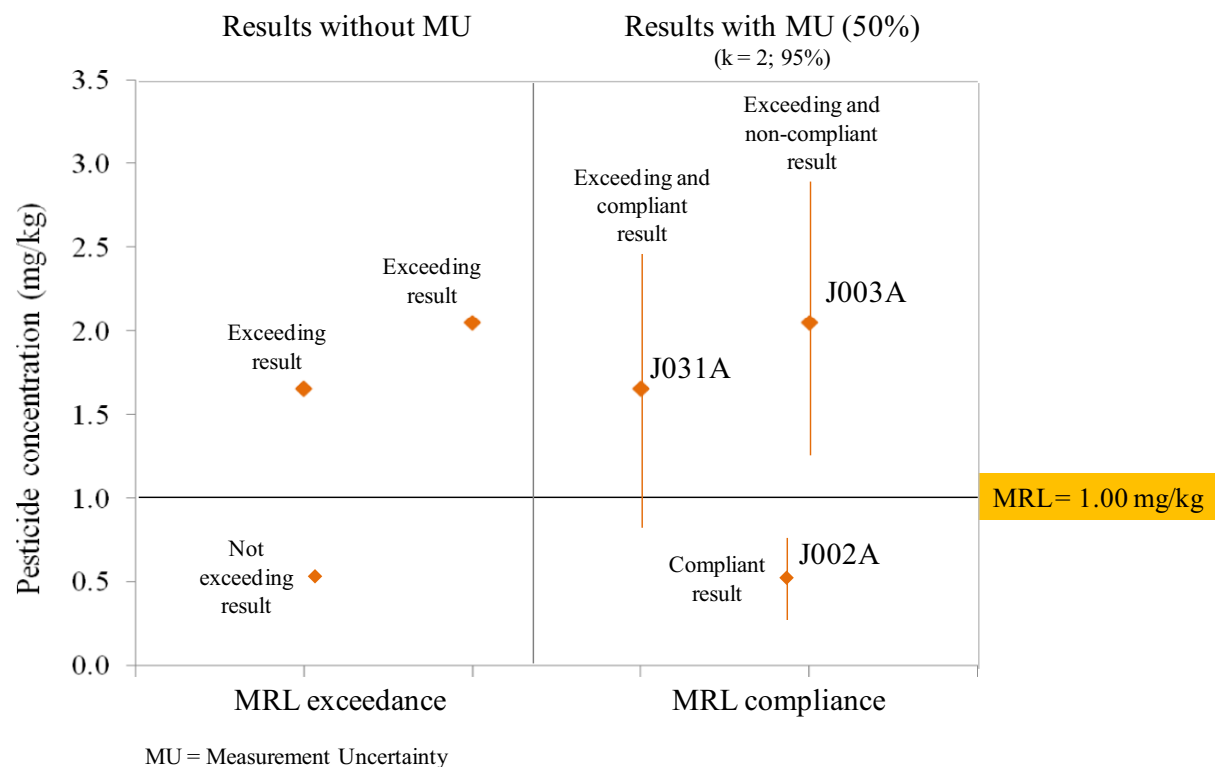


Figure 1: Graphical explanation on the different resEvaluation codes used to describe MRL compliance

Example 25: How to report the evaluation of the result for processed products (e.g. raisins)

Data element	Element value (catalogue)	Code description	Note
prodCode	P0151010A (MATRIX)	Table grapes	Grapes usually contain ca. 15% dry matter (DM) (information from public domain)
paramCode	RF-0035-001-PPP (PARAM)	Azoxystrobin	
prodTreat	T131A (PRODTR)	Dehydration	See also Section 3.17
moistPerc	20		Optional data element to report the moisture of the sample analysed; however, for dehydrated products, it is important information to calculate the MRL for processed products if no specific processing factor is available and should therefore be reported This information implies that the dry matter content (DM) of the sample is 80%
exprRes	B001A (EXRES)	Whole weight	Only code valid for the exprRes element for this food sample
resVal	5		Analytical result measured in raisins (without any recalculation)
resLegalLimit	10.67		Calculated MRL for raisins, taking into account the processing factor for the pesticide (see resComm)
resEvaluation	J002A (RESEVAL)	≤ maximum permissible quantities	The measured residue in the processed product (resVal) was below the calculated legal limit (resLegalLimit)
resComm	MRL recalculated from EU MRL for fresh table grapes (2 mg/kg): 2 mg/kg × 80%/15% = 10.67 mg/kg. Sample of Raisins		The default processing factor for dried products is calculated as the ratio of the dry matter in the processed product and dry matter of the unprocessed product (e.g. DM raisins 80%/DM grapes 15% = 5.33) MRL _{RAC} × PF = calculated MRL for processed product (2 mg/kg × 5.33 = 10.67 g/kg)

Example 26: How to report the evaluation of the result for a composite product (e.g. fruit juice mixture)

Data element	Element value (catalogue)	Code description	Note
prodCode	PXXXXXA (MATRIX)	Not in list	When a composite food sample is tested (e.g. pizza), it is advisable (but not mandatory) to provide details of the sample and/or the main ingredients in the resComm data element.
paramCode	RF-0014-001-PPP (PARAM)		Acetamiprid
prodTreat	T103A (PRODTR)	Juicing	See also Section 3.17
exprRes	B001A(EXRES)	Whole weight	Only code valid for the exprRes element.
resVal	1.2		Analytical result for the juice analysed. Taking into account the default 50% measurement uncertainty, the upper and the lower confidence interval are 1.8 and 0.6 mg/kg.
resLegalLimit	0.451		Calculated MRL for the composite food product (see prodText)
resEvaluation	J003A (RESEVAL)	> maximum permissible quantities	The measured residue in the composite food product (resVal) clearly exceeded the calculated legal limit (resLegalLimit), even if the 50% measurement uncertainty is taken into account (lower confidence interval of the resVal) (see also Figure 1)

Data element	Element value (catalogue)	Code description	Note
resComm	Sample analysed: Fruit juice containing 30% orange juice, 20% grape juice, 10% apple juice, 10% pineapple juice and 30% water MRL recalculated for the composite product from EU MRLs, taking into account the composition of the product is 0.451 mg/kg		Free text data element to report any information considered relevant by the data provider, e.g. the composite food sample description MRLs for acetamiprid for the individual components (please note, that MRL values may change over the time; please always verify the applicable ones): Orange: 0.9 mg/kg Apples: 0.8 mg/kg Grapes: 0.5 mg/kg Pineapples: $0.01 \times \text{mg/kg}$ $0.9 \text{ mg/kg (orange)} \times 0.3 + 0.5 \text{ mg/kg (grapes)} \times 0.2 + 0.8 \text{ mg/kg (apples)} \times 0.1 + 0.01 \text{ mg/kg (pineapples)} \times 0.1 = 0.27 + 0.1 + 0.08 + 0.001 = 0.451 \text{ mg/kg}$

Related data elements: 5.11 LOD for the result ('resLOD', SSD data element R.14), 5.12 Result LOQ ('resLOQ', SSD data element R.15), 5.13 Result value ('resVal', SSD data element R.18), 5.19 Expression of result ('exprResCode', SSD data element R.25).

5.25. Action taken ('actTakenCode', SSD data element R.31)

This data element is not mandatory. It should be used to describe follow-up actions taken in case of infringements of legal limits established under the MRL legislation (Regulation 396/2005) or any other administrative or risk management actions. Thus, the code in the ACTION catalogue should be used each time any enforcement action was taken because of infringements of the EU MRL. Even though voluntarily, it is strongly recommended to always complete the 'actTakenCode' data element in case of control results not compliant with the EU MRL.

This is particular important for samples taken in the framework of Regulation (EC) No 669/2009 during the border inspections, e.g. it should be reported whether a sample that was found non-compliant with the EU MRL was rejected at the border or whether the lot was available for consumption in the EU territory.

The experts of the Pesticide Monitoring Network expressed their wish to add new codes in the ACTION catalogue not only to identify actions taken as a consequence of MRL violations but also to highlight that actions were taken for other reasons, e.g. the presence of a pesticide in samples produced in the EU that is not approved at European level according to Regulation 1107/2009 or the presence of a pesticide residue (within the legal limit) in organic products that is not permitted for organic farming. Considering this, EFSA has allocated codes addressing this request (Table 19).

The ACTION taken codes shall be reported always in capital letters (e.g. 'A' and not 'a') and in case multiple codes are for the same analytical result, the single codes from the ACTION catalogue should be linked using the '\$' separator (e.g. R\$S\$C).

In case more detailed information on the specific action taken should be reported (e.g. the possible reason for the observed MRL exceedances), this can be provided in the data element 'resComm' (See Section 5.26).

Table 19: ACTION codes most commonly selected for the pesticide residues data coding

ACTION code	Code description	Note
A	Administrative consequences	
C	Follow-up action due to a residue of a pesticide detected in EU samples, which is not approved for use in the EU territory	Code to be selected in cases the use of the quantified pesticide is <u>not</u> approved at EU level, then the provisions of Regulation (EU) No 1107/2009 were violated
E	Destruction of animals and/or products	
F	Follow-up (suspect) sampling	
G	Follow-up action due to the residues of a pesticide detected in domestic products, which is not authorised in the country	Code to be selected in case the use of the quantified pesticide is <u>not</u> authorised in the country of origin of the sample (e.g. in domestic samples), then the provisions of Regulation (EU) No 1107/2009 were violated
I	Follow-up investigation	
M	Lot not released on the market	
N	No action	
P	Follow-up action due to a pesticide residue detected in organic samples, violating the provisions laid down in the organic farming legislation	Code to be selected to flag those results concerning the analysis of an organic food samples and indicating a violation of the provisions laid down in the organic farming legislation. Thus, this code should be used to indicate that follow-up actions were taken in case the quantified pesticide is not allowed in organic farming or to flag the 'non-intended (e.g. contamination) of the non-authorised substance in organic food
R	Rapid alert notification	Details on the RASFF notification (e.g. reference number) can be provide in the National Summary Report (see Annex A – Template for the 2017 National Summary Report)
S	Lot recalled from the market	
W	Warnings	

For cases where quantified results for non-approved pesticides, it is appropriate to report the results as compliant (resEval code J002A, see Section 5.24 Evaluation of the result ('resEvaluation', SSD data element R.30)); for highlighting that the active substance is not approved in the country of origin (i.e. is considered as an infringement of provisions of Regulation (EC) No 1107/2009²³), please use the code 'G' from the ACTION catalogue. Example 27 provides more details on this issue.

Example 27: How to report the not authorised uses of a given pesticide

Data element	Element value (catalogue)	Code description	Note
prodCode	P0110020A (MATRIX)	Oranges	According to Annex I of Regulation (EC) No 396/2005, orange samples shall be checked for compliance against the MRL when the pesticide residues are analysed in the whole oranges (including the peel)
prodTreat	T999A (PRDTR)	Unprocessed	
origCountry	AR	Argentina	
paramCode	RF-0522-001-PPP	Butocarboxim	The use of this active substance is not approved at EU level.
resUnit	G061A	Milligramme/kilogramme	

²³ Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC. OJ L 309, 24.11.2009, p. 1–50 and its amendments.

Data element	Element value (catalogue)	Code description	Note
resLOQ	0.010		
resVal	0.010		
exprRes	B001A (EXRES)	Whole weight	The result should be reported for the product analysed (in this case the whole oranges)
resType	VAL		Residue quantified at or above the LOQ
resLegalLimit	0.010		According to Art 18(1)(b) of Reg (EC) No 396/2005, for this substance the default MRL of 0.01 mg/kg applies
resLegalLimitType	W002A	Maximum Residue Level (MRL)	
resEvaluation	J002A	Compliant due to measurement uncertainty	The analytical result has to be evaluated against the legal limits set in the MRL legislation and not considering the authorisation/approval status of the analysed pesticide
actTakenCode	G	Follow-up action due to a residue of a pesticide detected in EU samples, which is not approved for use in the EU territory	The 'actTakenCode' is the only SSD data element where it is possible to flag that the measured residue refers to a substance, which is not approved for use in the EU and that follow-up actions have been taken Please use the '\$' separator in cases more than one 'actionTakenCode' is selected Always report these codes with capital letters.
resComm	The sample tested was whole, fresh oranges with peel and it was found compliant with the pesticide MRL, but the quantified residue is not compliant with Regulation 1107/2009 provisions (not approved substance).		Free text to provide details on the analytical results, as considered relevant

Related data elements: 5.24 Evaluation of the result ('resEvaluation', SSD data element R.30), 5.26 Comment on the result ('resComm', SSD data element R.32).

5.26. Comment on the result ('resComm', SSD data element R.32)

This data element is not mandatory and no catalogue is available (free text data element); however, it should be used to provide additional information considered of relevance by the data provider, such as:

- details on the food sample tested, in particular for composite food reported as 'not in list' (see also Section 3.13);
- the processing factor (PF) applied to check MRL compliance for processed products (see also Table 19);
- the possible reasons for the observed MRL exceedance (see also Section 5.24);
- Explanation how the legal limit for composite food has been calculated taking into account the MRLs for the individual components (see also Examples 25 and 26);
- details on the analytical results;

Related data elements: 3.13 Product code ('prodCode', SSD data element S.13), 5.22 Legal limit for the result ('resLegalLimit', SSD data element R.28), 5.24 Evaluation of the result ('resEvaluation', SSD data element R.30), 5.25 Action taken ('actTakenCode', SSD data element R.31).

6. Additional examples for special cases

In the previous sections, the main focus was put on the description of samples taken in the framework of Article 29 and 30 of Regulation (EC) No 396/2005. Since reporting countries usually also report the results of pesticide residues in samples that are not or not yet fully covered by this legislation (e.g. baby food, feed, fish) or results for substances covered by partially overlapping legislations (e.g. residues of veterinary medicinal products) or other substances of interest, such as biocides, safeners and synergists, specific guidance should be provided in this chapter for reporting these results to ensure that a harmonised approach is used.

It is recalled that for baby food, the result should be expressed for the product ready to eat, or, where relevant, for the reconstituted, diluted product.

6.1. Baby food

In Table 20, a complete list of all mandatory data elements can be found which describes for which code-specific considerations need to be taken into account for coding of baby food samples.

Table 20: SSD codes relevant reporting of results for baby food

Mandatory data element	Element value (code description)	Comment
labSampCode		No specific provisions/restrictions
lang		No specific provisions/restrictions
sampCountry		No specific provisions/restrictions
origCountry		No specific provisions/restrictions
prodCode	PX100001A (Baby food for infants and young children) or PX100003A (Processed cereal-based baby foods (e.g. cereal and pastas to be reconstituted with milk or other liquids)) or PX100004A (Infant formulae) or PX100005A (Follow-on formulae)	
prodProdMeth	Any value of Table 4	To report if the product analysed was marketed as organic product or food of conventional farming
prodTreat	T100A (Processed)	By definition, baby food products are processed products. More details on the type of processed product analysed could be reported in the field prodText, if considered relevant or necessary
sampY		No specific provisions
progLegalRef	N028A (Samples of food products falling under Directives 2006/125/EC and 2006/141/EC)	See Section 3.26 and Table 6
progSampStrategy	Any value of Table 7, considering the restrictions described	For baby food samples taken in the framework of the EU-coordinated programme, ST10A or ST20A is appropriate codes; for national programmes, any code can be selected
progType	Any value of Table 8, except K019A.	No specific restrictions
sampMethod	Appropriate code of Table 10	N014A (official control of feed) would not be an appropriate code
sampPoint	Appropriate code of Table 11	No specific provisions/restrictions
labCode	Free text	No specific provisions/restrictions
labAccred	Any value of Table 12	No specific provisions/restrictions
resultCode	Free text	No specific provisions/restrictions
analysisY	Year of analysis	No specific provisions/restrictions
analysisM	Month of analysis	No specific provisions/restrictions
analysisD	Day of analysis	No specific provisions/restrictions

Mandatory data element	Element value (code description)	Comment
paramCode	Any plausible code of the MatrixTool. In addition, a code from TableB of the MatrixTool can be selected to report components of a complex residue definition	The European Commission clarified in the Standing Committee of the Food Chain and Animal Health that pending the adoption of the new delegated acts the residues of pesticides in baby food samples shall be analysed according to the legal residue definitions set out in Regulation (EC) No 396/2005 and not according to the baby food Directives. This approach applies to both the national and EU-wide control programmes. In the MatrixTool, a complete list of valid paramCodes for baby food can be found in TableBabyFood For pesticides with different residue definitions set for different food products, the residue definition set under Regulation (EC) No 396/2005 for the main ingredient should be selected. Thus, for baby food that mainly comprises fruit or vegetables, the paramCode applicable for fruit and vegetables should be selected. Infant formulae and follow-on formulae on milk basis should be analysed for the residue definition set for milk. Similarly, for baby food containing mainly animal products other than milk, the residue definition for animal products should be selected
paramType	P005A (Full legal residue definition analysed) or – where appropriate – P004A (Sum based on a subset) If a residue definition is classified as a ‘multicomponent’ definition, in addition, the single components of the multicomponent definitions can be reported in line with the paramCodes provided in the MatrixTool, which have to be labelled with P002A (part of a sum)	The valid paramTypes for the specific paramCode/ prodCode combination can be found in the MatrixTool. In addition, reporting countries can report the components of the multicomponent of the residue definitions using the paramType=P002A
accredProc	Any value of Table 14	No specific restrictions
resUnit	G061A (mg/kg)	This is the only code acceptable for pesticide data submission
resLOQ	Numerical value for LOQ of the method in the matrix analysed	The LOQ has to be reported. The analytical method needs to be sufficiently sensitive to allow the quantification of the residues in accordance with the legal residue definition and the MRL, which is in most cases 0.01 mg/kg; a lower LOQ would be required for the following residue definitions – paramCodes: Disulfoton (RD) – RF-0149-001-PPP Fensulfothion – RF-0685-002-PPP Fentin (RD) – RF-0687-001-PPP Haloxfop (RD) – RF-0235-001-PPP or RF-0235-005-PPP Heptachlor (RD) – RF-0236-001-PPP Hexachlorobenzene – RF-0237-001-PPP Nitrofen – RF-0311-001-PPP Dimethoate/omethoate (RD) – RF-0139-001-PPP Terbufos – RF-0412-002-PPP Dieldrin (RD) – RF-0021-001-PPP Endrin – RF-0156-001-PPP Cadusafos – RF-0528-001-PPP Demeton-S-methyl – RF-0594-002-PP Oxydemeton-methyl (RD) – RF-0323-001-PPP Ethoprophos – RF-0164-001-PPP Fipronil (RD) – RF-0192-001-PPP Propineb – RF-0359-001-PPP

Mandatory data element	Element value (code description)	Comment
resVal	Numerical value	Result of the analysis (if residue > LOQ); the result should be reported for the product ready for consumption or the reconstituted product (diluted according to the instructions of the manufacturer)
resValRec	Numerical value	Mandatory only under certain conditions (see Section 5.15); percentage of recovery (e.g. 65 if recovery in method validation was 65 %)
exprRes	B007A	See Table 15
resType	VAL or LOQ or BIN	If the sample was analysed with a screening method and the pesticide was not detected, the code BIN should be selected
resLegallimit	0.01 or specific MRL for the paramCodes reported in resLOQ	For baby food, the default MRL of 0.01 mg/kg is applicable unless lower limits have been set under the relevant legislation (see paramCodes in this table). It is noted that according to Article 7(4) of Directive 2006/125/EC, the legal limits apply to the product ready for consumption or the product reconstituted according to the instructions of the manufacturer. A similar provision is established in Directive 2006/141/EC (Article 10)
resLegallimitType	W002A (Maximum Residue Level (MRL))	See Section 5.23
resEvaluation	Any value of Table 18	No specific provisions
actTakenCode	Any value of the ACTION catalogue	Also more than one code can be selected, if appropriate, using the \$ separator (see Section 5.25)
prodText	E.g. reconstituted infant formula based on cow's milk; result reported for diluted product prepared as recommended on product label (50 g product diluted with 100 mL water)	No specific provisions

6.2. Feed and fish samples

For feed (crops exclusively used for animal feed purposes) and fish, harmonised EU MRLs are not yet established under Regulation (EC) No 396/2005. It should be highlighted that for feed product that were produced from products listed in Annex I of Regulation (EC) No 396/2005, the existing EU MRLs would apply, taking into account the appropriate processing factors.

For the most important data elements, examples on the choice of the correct codes for these two food categories are outlined below.

Table 21: Specific codes recommended for reporting results on fish and animal feed

Data element	Element value (catalogue)	Code description	Note
prodCode	P1100000A	Fish, fish products	For feed produced from products that can also be used for food purposes (e.g. soya meal produced from soya beans), the corresponding code from the MATRIX catalogue should be used.
	P1200000A (MATRIX)	Crops exclusively used for animal feed	
	Wheat straw		
prodTreat	Any code from Table 5		No restrictions. See also Section 3.17
progLegalRef	N027A(catalogue from SSD2)	Samples taken under Regulation (EC) No 396/2005	Although no legal limits are established yet for feed, the general provisions of Article 26 of Regulation (EC) No 396/2005 on official controls apply also for feed.

Data element	Element value (catalogue)	Code description	Note
sampMethod	Fish: appropriate code from SAMPD catalogue		Lacking the detailed provisions for feed under Regulation (EC) No 396/2005, the generic sampling provisions for feed would be applicable.
	Feed: N014A (SAMPMD)	According to Reg. 152/2009/EC for official control of feed	
paramCode	Any code of the MatrixTool, TableA or TableB can be selected to report results of the analysis		Since there are no official residue definitions for feed, the reporting country is free to decide which parameter to analyse
paramType	P005A, P004A or P002A		No restrictions
resLegalLimit	Numerical value or blank		National legal limit, if applicable
resLegalLimitType	W990A (LMTTYP)	National or local limit	Since EU MRL are not yet in place, only national limits can be used for this data element
prodText			No restrictions. Free text data element to report the description of the fish species or feed item tested

6.3. Veterinary medicine residues

A number of pesticides are also used as veterinary medicines. Legal limits on residues of these dual use substances not only in food of animal origin are set under the pesticide MRL legislation but also in Regulation (EC) No 37/2010²⁴. Member States perform controls of food of animal origin under different legal frameworks. In this section, EFSA provides guidance how to report the results of the analysis under the pesticide residue data collection.

Table 22: Codes recommended for reporting results of residues of pharmacologically active substances covered by Regulation (EC) No 37/2010 and Regulation (EC) No 396/2005 in the framework of the pesticide monitoring data collection

Element value	Element value (catalogue)	Code description	Note
prodCode	Appropriate code for food of animal origin of MATRIX catalogue		
progLegalRef	N247A (catalogue of SSD2)	Directive 96/23/EC	see Table 6
progSampStrategy	Any value of Table 7, considering the restrictions described.		As appropriate
progType	Any value of Table 8		No specific restrictions
sampMethod	N010A (SAMPMD)		Appropriate code for monitoring in the framework of Directive 96/23/EC (see Table 10)

²⁴ Commission Regulation (EC) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin. OJ L 15, 20.1.2010, p. 1–72.

Element value	Element value (catalogue)	Code description	Note
paramCode	The relevant code for the residue definition in the MatrixTool for the animal product analysed		If no appropriate code reflecting the residue definition established in the framework of Directive 96/23/EC is available in the MatrixTool, the result should not be reported to EFSA in the framework of the pesticide-monitoring data collection. The following pesticides are covered by both pieces of legislation (please note that the below list of substance and their residue definitions may change over the time): Amitraz, cyfluthrin, diazinon, phoxim, thiabendazole, cypermethrin (a separate RD for alpha-cypermethrin is in place for residues of veterinary medicinal products), deltamethrin, fenvalerate, permethrin, abamectin (*), cyromazine, Diflubenzuron (*), teflubenzuron, cyhalothrin, emamectin (for the substances labelled with (*) the residue definitions set under the two pieces of legislation are different)
paramType	P005A or P004A as appropriate; In addition, P002A for reporting part of a complex residue definition		For the substances with different residue definitions set in Regulation (EC) No 396/52005 and Directive 96/23/EC, (i.e. diflubenzuron and abamectin): P004A if the sample was analysed in accordance with the legal residue definition set under Directive 96/23/EC which do not comprise all the metabolites that were included in the residue definition of Regulation (EC) No 396/2005
resLegalLimit	Numerical field		The limits set under Directive 96/23/EC (if the sample was taken under the legal framework of Regulation 396/2005 – progLegalRef N247A)
resLegalLimitType	W002A (Maximum Residue Level (MRL))		See Section 5.23
exprRes	B001A (EXRES)	Whole weight	The legislation applicable for residue of veterinary medicinal products also requires that the results are expressed on a whole weight basis
resComm	Any further information		Additional information, e.g. clarifications on the legal limit used to check compliance of the legal limits set in the two pieces of legislation (see introduction) were different

More detailed provisions for reporting results in the framework of Council Directive 96/23/EC have been recently published by EFSA (EFSA, 2015d).

6.4. Synergists and safeners

According to the current European legislation, synergists and safeners are not covered by MRL legislation (Regulation (EC) No 396/2005). However, since national legal limits may be applicable Member States are analysing samples for the presence of these compounds.

To submit results of these analyses in the framework of the pesticide data submission to EFSA, the recommendations outlined in Table 23 should be taken into account. For data elements not mentioned in this table, the general provisions described in Sections 3, 4 and 5 are applicable.

It is noted that as long as no harmonised MRL legislation is established for safeners and synergists, EFSA will exclude these results for the data analysis presented in the Annual Reports on Pesticide Residues.

Table 23: Codes recommended for reporting results of samples analysed for safeners and synergists

Element value	Element value (catalogue)	Code description	Note
progLegalRef	N018A (SSD2 catalogue)	Regulation (EC) No 882/2004	Since none of the alternative legislation recommended for the coding of this data element is applicable, the code for Regulation 882/2004 should be selected (see Table 6)
paramCode	RF-0492-001-PPP RF-0567-001-PPP RF-0568-001-PPP RF-0601-001-PPP RF-1069-001-PPP RF-0673-001-PPP RF-0674-001-PPP RF-0716-001-PPP RF-0722-001-PPP RF-0728-001-PPP RF-0765-001-PPP RF-0777-001-PPP RF-00000026-PAR RF-1037-001-PPP RF-0848-001-PPP RF-0889-001-PPP	Benoxacor Cloquintocet Cloquintocet-Mexyl Dichlormid Extender Fenchlorazole Fenchlorazol-Ethyl Fenclorim Flurazole Fluxofenim Furilazole Isoxadifen-ethyl Mefenpyr Mefenpyr-diethyl Oxabetrinil Piperonyl Butoxide S421 Sulfaquinoxaline	ParamCodes currently available for the safeners and synergists; please consider that the substances listed in this table (third column) may change over time
paramType	P002A (PARTYP)	Part of a sum	It is recommended to label safeners and synergists with P002A to make clear that there are no EU MRLs with EU agreed legal residue definitions
resLegalLimitType	W990A (LMTTYP)	National or local limit (if applicable)	EU MRL is not yet in place. If national MRLs are applicable, the code W990A should be selected
resLegalLimit	Numerical value for national legal limit or blank		If national legal limits are in place specifically for safeners and synergists, please report them (in mg/kg) in the data element resLegalLimit

7. 2017 EU Co-ordinated monitoring programme coding

In the table below, the food commodities included in the 2017 EU co-ordinated monitoring programme⁶ are listed along with the appropriate SSD codes for the food product ('prodCode', S.13), product treatment ('prodTreat', S.17), sampling strategy ('progSampStrategy', S.33) and type of sampling programme ('progType', S.34).

Food product	prodCode (MATRIX)	prodTreat (PRODTR)	prodTreat description	progLegalRef	progSamp Strategy (SAMPSTR)	progType (SRCTYP)	Note on the food product tested
Oranges	P0110020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product
Pears	P0130020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of stems
Kiwi fruits (green, red, yellow)	P0162010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of stems
Cauliflowers	P0241020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Curd only
Onions	P0220020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Bulbs
Carrots	P0213020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of tops (if any) and adhering soil
Potatoes	P0211000A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of tops (if any) and adhering soil
Beans (dry)	P0300010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Dry seeds
Rye	P0500070A	T999A/T111A	Fresh/Milling – unprocessed flour	N027A	ST10A/ST20A	K009A/K018A	Whole rye grains ('prodTreat' code T999A). If no sufficient, samples of rye grain are available, also <u>wholemeal/unprocessed</u> rye flour can be analysed, provided that a PF is reported. In this case, the 'prodTreat' code T111A for wholemeal flour should be used. If no specific PF are available, a default factor of 1.0 may be applied
Rice	P0500060A	T999A/T114A	Fresh/Polishing	N027A	ST10A/ST20A	K009A/K018A	Whole/husked/unpolished rice grains ('prodTreat' code T999A). If no sufficient samples of rice grains are available, also <u>polished rice</u> can be analysed, provided that a PF is reported. If no specific PF are available, a default factor of 0.5 may be applied
Fat (poultry)	P1016020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product: fresh/frozen fat
Fat (sheep)	P1013020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product: fresh/frozen fat
Infant formulae	PX100004A	T100A	Processed	N028A	ST10A/ST20A	K009A/K018A	If a baby food prodCode PX100004A is reported, the only valid treatment code is T100A
Follow-on formulae	PX100005A	T100A	Processed	N028A	ST10A/ST20A	K009A/K018A	If a baby food prodCode PX100005A is reported, the only valid treatment code is T100A

8. 2018 EU Co-ordinated monitoring programme coding

In the table below, the food commodities included in the 2018 EU co-ordinated monitoring programme²⁵ are listed along with the appropriate SSD codes for the food product ('prodCode', S.13), product treatment ('prodTreat', S.17), sampling strategy ('progSampStrategy', S.33) and type of sampling programme ('progType', 3.34).

Food product	prodCode (MATRIX)	prodTreat (PRODTR)	prodTreat description	progLegalRef	progSamp Strategy (SAMPSTR)	progType (SRCTYP)	Note on the food product tested
Grapefruits	P0110010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the stem
Table grapes	P0151010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the caps, crowns and stems
Bananas	P0163020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the stem
Sweet peppers/bell peppers	P0231020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the stem
Aubergines/eggplants	P0231030A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the stem
Melons	P0233010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of the stem
Broccoli	P0241010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of roots and decayed leaves
Cultivated fungi	P0280010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product after removal of soil or growing medium
Virgin olive oil	P0402010A	T104A	Oil production	N027A	ST10A/ST20A	K009A/K018A	If no specific oil-processing factor is available, a default factor of 5 may be applied for fat soluble substances, taking into account an olive oil production standard yield of 20% of the olive harvest; for non-fat soluble substances a default oil-processing factor of 1 may be used. Member States are requested to report the processing factors used in the 'National Summary report'
Wheat grains	P0500090A	T999A/T111A	Fresh/Milling - unprocessed flour	N027A	ST10A/ST20A	K009A/K018A	Whole dry grains ('prodTreat' code T999A). If no sufficient samples of wheat grains are available, also wholemeal/unprocessed wheat flour can be analysed and a processing factor shall be reported; in this case, the 'prodTreat' code T111A for wholemeal flour should be used. If no specific processing factors are available, a default factor of 1 may be applied
Fat (bovine)	P1012020A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole product

²⁵ Commission Implementing Regulation (EU) 2017/660 of 6 April 2017 concerning a coordinated multiannual control programme of the Union for 2018, 2019 and 2020 to ensure compliance with maximum residue levels of pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin. OJ L 94, 7.4.2017, p. 12–24.

Food product	prodCode (MATRIX)	prodTreat (PRODTR)	prodTreat description	progLegalRef	progSamp Strategy (SAMPSTR)	progType (SRCTYP)	Note on the food product tested
Eggs (chicken)	P1030010A	T999A/T998A	Fresh/Frozen	N027A	ST10A/ST20A	K009A/K018A	Whole eggs without the shell shall be analysed
Processed cereal-based foods for infants and young children	PX100003A	T100A	Processed	N028A	ST10A/ST20A	K009A/K018A	When 'baby food' samples (prodCode PX100003A) are reported, the only valid treatment code is T100A='Processed'

9. Food to be analysed according to Regulation (EC) No 669/2009

In the table below, the food commodities, the countries and product treatments covered by the Regulation (EC) No 669/2009 and its amendments relevant for the 2017 control year are listed along with the product code ('prodCode', S.13), country of origin of the product ('origCountry'), the product treatment ('prodTreat', S.17) and the programme type ('progType', S.34).

Food to be analysed ^(a)	Note on the food to be analysed according to Reg 669/2009	MRL food group/ subgroup according to Reg (EC) No 396/2005	prodCode (MATRIX)	Country of origin	origCountry (CTRY)	Product treatment	prodTreat (PRODTR)	progType (SRCTYP)	Checks (%) ^(b)
Pineapples	NEW in 2017	Pineapples	P0163080A	Benin	BJ	Fresh	T999A	K019A	20
Aubergines		Aubergines/egg plants	P0231030A	Cambodia	KH	Fresh/Frozen	T999A/T998A	K019A	50
Chinese celery (<i>Apium graveolens</i>)		Celery leaves	P0256030A	Cambodia	KH	Fresh	T999A	K019A	50
Yardlong beans (<i>Vigna unguiculata</i> spp. sesquipedalis)		Beans (with pods)	P0260010A	Cambodia	KH	Fresh/Frozen	T999A/T998A	K019A	50
<i>Brassica oleracea</i> (other edible Brassica, 'Chinese Broccoli')		Broccoli	P0241010A	China	CN	Fresh	T999A	K019A	20–50
Tea, whether or not flavoured		Teas	P0610000A	China	CN	Fresh	T999A	K019A	10
Peppers (sweet and other than sweet (<i>Capsicum</i> spp.))	Sweet peppers	Sweet peppers/bell peppers	P0231020A	Dominican Republic	DO	Fresh/Frozen	T999A/T998A	K019A	20

Food to be analysed ^(a)	Note on the food to be analysed according to Reg 669/2009	MRL food group/subgroup according to Reg (EC) No 396/2005	prodCode (MATRIX)	Country of origin	origCountry (CTRY)	Product treatment	prodTreat (PRODTR)	progType (SRCTYP)	Checks (%) ^(b)
Peppers (sweet and other than sweet (Capsicum spp.))	Chili peppers	Sweet peppers/bell peppers	P0231020-001A	Dominican Republic	DO	Fresh/Frozen	T999A/T998A	K019A	20
Yardlong beans (<i>Vigna unguiculata</i> spp. sesquipedalis)		Beans (with pods)	P0260010A	Dominican Republic	DO	Fresh/Frozen	T999A/T998A	K019A	20
Peppers (sweet and other than sweet (Capsicum spp.))	Sweet peppers	Sweet peppers/bell peppers	P0231020A	Egypt	EG	Fresh/Frozen	T9999A/T998A	K019A	10
Peppers (sweet and other than sweet (Capsicum spp.))	Chili peppers	Sweet peppers/bell peppers	P0231020-001A	Egypt	EG	Fresh/Frozen	T999A/T998A	K019A	10
Strawberries			P0152000A	Egypt	EG	Fresh	T999A	K019A	10
Table grapes	NEW in 2017	Table grapes	P0151010A	Egypt	EG	Fresh	T999A	K019A	20
Peas with pods (unshelled)		Peas (with pods)	P0260030A	Kenya	KE	Fresh	T999A	K019A	5–10
Aubergines		Aubergines/egg plants	P0231030A	Thailand	TH	Fresh/Frozen	T999A/T998A	K019A	20
Peppers (other than sweet, (Capsicum spp.))	Chili peppers	Sweet peppers/bell peppers	P0231020-001A	Thailand	TH	Fresh	T999A	K019A	10
Yardlong beans (<i>Vigna unguiculata</i> spp. sesquipedalis)		Beans (with pods)	P0260010A	Thailand	TH	Fresh/Frozen	T999A/T998A	K019A	20
Pomegranates	NEW in 2017	Granate apples/pomegranates	P0163050A	Turkey	TR	Fresh	T999A	K019A	20
Peppers (sweet peppers, (Capsicum spp.))	Sweet peppers	Sweet peppers/bell peppers	P0231020A	Turkey	TR	Fresh/Frozen	T999A/T998A	K019A	10
Vine leaves		Grape leaves and similar species	P0253000A	Turkey	TR	Fresh/Processed	T999A/T100A	K019A	50
Lemons		Lemons	P0110030A	Turkey	TR	Fresh/Dehydrated	T999A/T131A	K019A	20

Food to be analysed ^(a)	Note on the food to be analysed according to Reg 669/2009	MRL food group/subgroup according to Reg (EC) No 396/2005	prodCode (MATRIX)	Country of origin	origCountry (CTRY)	Product treatment	prodTreat (PRODTR)	progType (SRCTYP)	Checks (%) ^(b)
Basil (holy, sweet)		Basil and edible flowers	P0256080-009A	Viet Nam	VN	Fresh	T999A	K019A	50
Coriander leaves		Celery leaves	P0256030-004A	Viet Nam	VN	Fresh	T999A	K019A	50
Pitahaya (dragon fruit)		Prickly pears/cactus fruits	P0162040-001A	Viet Nam	VN	Fresh	T999A	K019A	10
Mint		Basil and edible flowers	P0256080-020A	Viet Nam	VN	Fresh	T999A	K019A	50
Okra		Okra/lady's fingers	P0231040A	Viet Nam	VN	Fresh	T999A	K019A	50
Parsley		Parsley	P0256040A	Viet Nam	VN	Fresh	T999A	K019A	50
Peppers (other than sweet, (Capsicum spp.))	Chili peppers	Sweet peppers/bell peppers	P0231020-001A	Viet Nam	VN	Fresh	T999A	K019A	50

(a): Food as described in one of the implementing regulations of Regulation (EU) No 669/2009.

(b): Frequency of checks according to Regulation (EC) No 669/2009 and its amendments, whose provisions were applicable in 2017.

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Abbreviations

CAS	Chemical Abstracts Service
DCF	Data Collection Framework
DM	dry matter content
DMS	Document Management System
DWH	data warehouse
EEA	European Economic Area
EUCP	European co-ordinated control programmes
FOT	French Overseas Territories
ISO	International Organisation for Standardisation
IUPAC	International Union of Pure and Applied Chemistry
LOD	limit of determination
LOQ	limit of quantification
MRL	maximum residue level
PF	processing factor
RASFF	Rapid Alert System for Food and Feed
RD	residue definition
SSD	Standard Sample Description (ver. 1)
VAL	numerical value

Annex A – Template for the 2017 National Summary Report

The purpose of the National Summary Report is to provide additional, complementary information in support of the national data and information already provided in the XML file in line with the SSD data model, such as information that is not held by laboratories compiling the XML file (e.g. the possible reasons and the actions taken in case of samples non-compliant with the EU MRL).

This document should report information concerning sample of both plant and animal origin. If different national bodies are responsible for pesticide residue control in the two sample matrices, it is the responsibility of the national competent authorities to co-ordinate at national level the collection and compilation of the information to be reported in this document.

An electronic copy containing further details on the information that should be reported is available on the EFSA Document Management System (DMS). Please return to EFSA only the Word version of the duly complete document. The Word document template is available in the EFSA DMS platform at: <https://dms.efsa.europa.eu/otcs/cs.exe/link/19217664>

PESTICIDE RESIDUE CONTROL RESULTS

NATIONAL SUMMARY REPORT

Year: 2017

Country:

1 COUNTRY

1.1 NAME OF THE NATIONAL COMPETENT AUTHORITY/ORGANISATION (INCL. FUNCTIONAL MAILBOX AND WEB ADDRESS WHERE NATIONAL PESTICIDE REPORTS ARE PUBLISHED)

2 OBJECTIVE AND DESIGN OF THE NATIONAL CONTROL PROGRAMME

3 KEY FINDINGS, INTERPRETATION OF THE RESULTS AND COMPARABILITY WITH THE PREVIOUS YEAR RESULTS

4 NON-COMPLIANT SAMPLES: POSSIBLE REASONS, ARFD EXCEEDANCES AND ACTIONS TAKEN

5 QUALITY ASSURANCE

6 PROCESSING FACTORS (PF)

7 ADDITIONAL INFORMATION

8 NOTE ON CONFIDENTIALITY OF CERTAIN CONTROL DATA SUBMITTED BY REPORTING COUNTRY