

## QUALITY OVERALL SUMMARY

*Reference: EDQM guideline PA/PH/CEP (04) 1 (as revised) Content of the dossier for chemical purity and microbiological quality*

<b>Substance name</b>	
<b>Monograph n°</b>	
<b>Subtitle (if any)</b>	
<b>Intended Holder of the CEP</b>	

<b>Written by</b>	
<b>Qualification*</b>	
<b>Date</b>	

**(\*): APPEND CV OF THE EXPERT**

## **2.3.S SUBSTANCE**

### **2.3.S.1 General Information**

Use of the substance: *Route(s) of administration, maximum daily dose.*

Commercialisation history: *Summarise the history based on the table in the application form).*

#### 2.3.S.1.1 Nomenclature

*(a) Recommended International Non-proprietary name (INN):*

*(b) Chemical name(s):*

*(c) Company or laboratory code:*

*(d) Other non-proprietary name(s) (e.g., national name, USAN, BAN etc.):*

*(e) CAS No., Molecular Formula, MW:*

#### 2.3.S.1.3 General Properties

Give summarised data on:

*(a) Physical description (e.g., appearance, colour, physical state...).*

*(b) Physical form (e.g., polymorphic form, solvate, hydrate): to be commented especially if requested as grade.*

*(c) Solubility and other properties as necessary.*

*(d) Particle size: e.g. "non-micronised", "micronised" or any grade claimed as subtitle.*

## **2.3.S.2 Manufacture**

### **2.3.S.2.1 Manufacturer(s) (name, manufacturer) and sites involved in the entire process**

*Give the name, address and responsibility of each manufacturer, including contractors, intermediate manufacturers and other proposed production sites or facilities involved in process.*

### **2.3.S.2.2 Description of Manufacturing Process and Process Controls**

*(a) Give a brief narrative step-by-step description of the manufacturing process(es) and provide reference to detailed description in the documentation. Confirm the maximum batch size.*

*(b) If applicable summarise alternate processes and give a short explanation of their use.*

*(c) Comment shortly on recovery of materials (solvents, reagents, and mother liquor), on any reprocessing steps and give a brief justification.*

### **2.3.S.2.3 Control of Materials**

#### **I) Starting material(s)**

*Provide the name and address of each manufacturer / supplier and the routes of syntheses for each starting material and summarise differences between routes if more than one manufacturer/supplier is used for each starting material. Summarise the specification (including impurities profile) including their justification based on studies of carry-over.*

*NB: If starting material is obtained by fermentation or is from herbal origin, summarise the information related to the nature of this material.*

#### **II) Reagents and solvents**

*Summarise the quality and controls of the materials (e.g., raw materials, solvents pure and/or recovered, reagents, catalysts) used in the manufacture of the final substance.*

### **2.3.S.2.4 Controls of Critical Steps and Intermediates**

*Summarise the controls performed at critical steps of the manufacturing process and on intermediates, compare analytical procedures used for intermediates and final substance.*

### **2.3.S.2.5 Process Validation and/or Evaluation**

*For aseptic processing and sterilization only give the summary of process validation and/or evaluation studies.*

### **2.3.S.3 Characterisation**

#### 2.3.S.3.2 Impurities

(I) Related substances

(a) Fill in the following table identifying related substances, their origin and distinguishing between potential and actual impurities and comparing with impurity section of the monograph:

<i>Chemical name</i>	<i>PhEur impurity</i>	<i>Applicant's specifications</i>	<i>PhEur specifications</i>	<i>Origin</i>	<i>Levels found</i>	<i>LOD of the method</i>	<i>LOQ of the method</i>

(b) Justify the specification based on data observed for impurities in relevant batches.

(c) Discuss briefly about the suitability of the monograph to control the potential in-house impurities present in the substance (starting materials, intermediates, by-products, etc.).

(d) Genotoxic impurities: Give a brief discussion on potential genotoxic or mutagenic impurities following current EU guidance.

II. Residual solvents/metal impurities/reagents etc.

(a) Discuss briefly the control of residual solvents and fill in the following table:

<i>Solvent</i>	<i>Used in step x/y</i>	<i>Applicant's limit</i>	<i>ICH class / limit</i>	<i>Levels (ppm)</i>	<i>LOD of the method</i>	<i>LOQ of the method</i>

(b) Discuss briefly the basis for setting the specification for non-ICH solvents.

(c) Discuss briefly the control of metal (elemental) impurities following current EU guidance and fill in the following table:

<i>Elemental impurity/Metal</i>	<i>Used in step x/y</i>	<i>Applicant's limit</i>	<i>ICH/EMA class / limit</i>	<i>Levels (ppm)</i>	<i>LOD of the method</i>	<i>LOQ of the method</i>

(d) Discuss briefly control of residual reagents of the process.

### **2.3.S.4 Control of the Substance**

#### **2.3.S.4.1 Specification**

*Give a table summarising the proposed specifications.*

#### **2.3.S.4.2 Analytical Procedures**

*Summarise the analytical procedures.*

#### **2.3.S.4.3 Validation of Analytical Procedures**

*Give the summary of the validation information for any in-house tests and compare briefly with the method(s) described in the monograph (cross validation).*

#### **2.3.S.4.4 Batch Analyses**

*(a) Give a short description of the batches: Batch Number Batch Size Date and Site of Production.*

*(b) Summarise the results for relevant batches (according to specifications and showing equivalence of any alternative supplier, process etc.).*

#### **2.3.S.4.5 Justification of Specification**

*Justify the substance specification, especially for additional impurities that cannot be controlled by the tests of the monograph.*

### **2.3.S.5 Reference Standards or Materials**

*(a) Give the source of primary reference standards or reference materials (e.g. Ph. Eur.) for the final substance and its impurities where relevant.*

*(b) Summarise characterization and evaluation of in-house standards.*

### **2.3.S.6 Container Closure System**

*(a) Describe shortly the container closure system(s) for the storage and shipment of the substance (i.e. in a clear and understandable manner).*

*(b) Summarise the specification for each component (description + identification).*

*(c) Summarise the declarations of compliance of packaging materials to current EU regulations/directives and appropriate Ph.Eur monographs.*

### **2.3.S.7 Stability**

*State if a re-test period is claimed for the substance and storage recommendations if any:*

#### **2.3.S.7.1 Stability Summary and Conclusions**

*(a) Summarise accelerated AND long term testing (e.g., studies conducted, protocols used, results obtained).*

*(b) Justify the re-test period claimed based on data available.*

#### **2.3.S.7.2 Post-approval Stability Protocol and Stability Commitment**

*Give the stability protocol for commitment batches.*