Australian Government
Department of Health and Aged Care
Therapeutic Goods Administration

Proposed quality standards for MDMA and psilocybin

Consultation paper

Version 1.0, December 2023

Confidentiality
All submissions received will be placed on the TGA's Internet site, unless marked confidential. Any confidential material contained within your submission should be provided under a separate cover and clearly marked "IN CONFIDENCE". Reasons for a claim to confidentiality must be included in the space provided on the TGA submission form. For submission made by individuals, all personal details, other than your name, will be removed from your submission before it is published on the TGA's Internet site. In addition, a list of parties making submissions will be published. If you do not wish to be identified with your submission you must specifically request this in the space provided on the submission form.

Contents

Purpose

The Therapeutic Goods Administration (TGA) is consulting on two proposed new quality standards for:

- 3,4-methylenedioxy-N-methylamphetamine hydrochloride (MDMA), and
- psilocybin.

These proposed standards include limits on contaminants and synthetic impurities, and accuracy in statement of active ingredients for MDMA and psilocybin. The standards would apply to both compounded and commercially manufactured medicines.

These standards aim to provide medical practitioners and the Australian public confidence that these goods meet quality expectations to support their safe use and effectiveness.

Scope

We are seeking comment to confirm the technical requirements outlined in the proposed quality standards for MDMA and psilocybin, specifically:

- Assay limits and specified tests for MDMA and psilocybin.
- Limits for impurities, residual solvents and heavy metals.
- A specific requirement for compounders to use an active pharmaceutical ingredient (API) tested in an Australian Good Manufacturing Practice (GMP)-licensed laboratory.

We are not seeking comment on the decision to publish new quality standards for MDMA and psilocybin.

Background

Australian patients have access to therapy with MDMA and psilocybin as part of clinical trials. Prior to 1 July 2023, these substances were included in Schedule 9 (Prohibited Substances) of the Poisons Standard, which limited their use to authorised research and analytical purposes only. Effective from 1 July 2023, the Poisons Standard was amended to add MDMA and psilocybin to Schedule 8 (S8), permitting their use as Controlled Drugs only for the treatment of post-traumatic stress disorder (PTSD) and treatment resistant depression (TRD) respectively. Only authorised medical practitioners are permitted to prescribe S8 MDMA and psilocybin.

Patients using experimental medicines in a clinical trial setting are closely monitored and the medicines are manufactured specifically for each trial. Broader access to MDMA and psilocybin will introduce greater quantities into supply and quality requirements are needed to ensure these are manufactured consistently. Minimising variation between batches of products, and mandating adherence to agreed quality requirements, is essential to support the known safety and efficacy of medicines. As there are currently no standards setting out quality requirements for MDMA or psilocybin, as active pharmaceutical ingredients (APIs) or finished products, the TGA has drafted a proposed quality standard for these medicines.

Section 10 of the *Therapeutic Goods Act 1989* includes provisions for the Minister to establish standards for therapeutic goods to specify minimum quality requirements such as procedures to be carried out in the manufacture of the goods, labelling, or other requirements.. These ministerial standards are registered as legislative instruments on the Federal Register of Legislation as Therapeutic Goods Orders (TGOs).

These quality standards aim to provide treating physicians with confidence in the ongoing batch-to-batch consistency of these medicines when treating their patients, and that these medicines have a known efficacy and safety profile consistent with products used for clinical trials.

As legislative instruments these standards will allow us to take compliance action against goods that do not meet the requirements and remove poor quality products from supply.

These quality standards will also provide clarity for Australian companies, supporting the development of the Australian industry for domestic supply and potential export.

Development of the proposed quality standards

We developed the proposed quality standards in consultation with domestic and international manufacturers supplying MDMA and psilocybin for clinical trials. These discussions informed the proposed requirements and testing methodologies included in the draft standards.

The draft quality standard for psilocybin will initially restrict the medicine to a single species of mushroom – *Psilocybe cubensis.* From our preliminary consultations we identified this was the only species used in clinical trials.

The draft quality standard for MDMA is provided at Attachment A, and the draft quality standard for psilocybin is provided at Attachment B.

Compounded MDMA and psilocybin

Testing for compliance of finished products (in this case, capsules) with quality standards requires batches of a suitable size due to the destructive nature of the testing.

The clinical protocols for the use of MDMA and psilocybin require a very small number of capsules per patient. Extemporaneous compounding (manufacturing for a specific individual patient) has been the most common form of manufacture for supply to clinical trials and may continue. In this type of manufacturing, insufficient numbers of capsules are made to allow for destructive testing.

To ensure the quality of the finished dosage form when it cannot be tested, it is critical that the API is of appropriate quality. The proposed quality standards therefore include a requirement for the testing of MDMA and psilocybin API at an Australian GMP-licensed laboratory before use in extemporaneous compounding.

Implementation of the new quality standards

We expect to finalise the quality standards for MDMA and psilocybin in February 2024 and register them on the Federal Register of Legislation in March 2024. We propose to implement the requirements from the date of commencement of the TGOs.

The proposed tests, methodologies and limits are consistent with manufacturing requirements currently applied to the medicines used in clinical trials. Consequently, minimum disruption to supply by introduction of the new TGOs is expected. Any new manufacturers would be required to develop methodologies and testing limits as part of validation of their processes and the TGOs provide the necessary clarity on Australian requirements.

How to respond

We are seeking your comments on the technical information in the proposed quality standards before they are finalised. We have posed questions within this consultation to guide your feedback.

The consultation questions are optional, and you can skip any questions if you do not wish to respond.

You can complete this consultation by either:

1. Submitting your views by clicking the link below – this will step you through our questions.

   https://consultations.tga.gov.au/tga/proposed-quality-standards-for-mdma-and-psilocybin

   OR

2. Downloading the full consultation paper and uploading your own response document on the 'Making a submission – file upload' page on the link above.

Consultation Questions

Consultation questions for MDMA

Question 1: Do you agree with the tests included in the draft standard for MDMA? If not, what changes do you propose and why?

Question 2. Do you agree with the limits applied in the draft standard for MDMA? If not, what changes do you propose and why?

Question 3: Do you agree with the requirement for unlicensed compounding pharmacists to use an API that has been tested in an Australian GMP-licensed laboratory? If not, what changes do you propose and why?

Question 4. Do you agree with implementation of the new TGO to commence with its registration on the Federal Register of Legislation in March 2024. If not, what changes do you propose and why?

Question 5. Do you have any other comments in relation to the new draft standard for MDMA?

Consultation questions for psilocybin

Question 1: Do you agree with the tests included in the draft standard for psilocybin? If not, what changes do you propose and why?

Question 2. Do you agree with the limits applied in the draft standard for psilocybin? If not, what changes do you propose and why?

Question 3: Do you agree with the requirement for unlicensed compounding pharmacists to use an API that has been tested in an Australian GMP-licensed laboratory? If not, what changes do you propose and why?

Question 4. Do you agree with implementation of the new TGO to commence with its registration on the Federal Register of Legislation in March 2024. If not, what changes do you propose and why?

Question 5. Do you have any other comments in relation to the new draft standard for psilocybin?

Attachment A – Draft standard for MDMA

Please note that the draft orders are not final, but are drafts provided for the purposes of assisting the consultation process, and that they may be subject to change as part of being finalised.

Therapeutic Goods (Standard for MDMA Hydrochloride) (TGO 112) Order 2023

I _____ , as delegate of the Minister for Health and Aged Care, make the following Order.

Dated 2023

DRAFT ONLY—NOT FOR SIGNATURE

Contents

Part 1—Preliminary

1 Name

(1) This instrument is the *Therapeutic Goods (Standard for MDMA Hydrochloride) (TGO 112) Order 2023*.

(2) This instrument may also be cited as TGO 112.

2 Commencement

(1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

Commencement information		
Column 1	**Column 2**	**Column 3**
Provisions	**Commencement**	**Date/Details**
1. The whole of this instrument		

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

(2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

3 Authority

This instrument is made under section 10 of the *Therapeutic Goods Act 1989*.

4 Definitions

Note: A number of expressions used in this instrument are defined in subsection 3(1) of the Act, including the following:

(a) batch;
(b) container;
(c) European Pharmacopoeia;
(d) label;
(e) manufacture;
(f) Secretary;
(g) sponsor;
(h) standard;
(i) therapeutic goods.

In this instrument:

Act means the *Therapeutic Goods Act 1989*.

active ingredient has the same meaning as in the Regulations.

batch number means a number, or a combination of numerals, symbols or letters, which is given by the manufacturer to a batch of MDMA hydrochloride or a MDMA hydrochloride product to uniquely identify that batch.

Note: The batch number may be used to trace the batch through all stages of manufacture and distribution.

batch number prefix means the prefix which precedes the batch number, and consists of any words or symbols that clearly indicate that the information following those words or symbols is the batch number.

Note: Common forms of the batch number prefix include (either in lower case, upper case or a combination of upper and lower case letters):

(a) Batch number;
(b) Batch no.;
(c) Batch;
(d) B;
(e) (B);
(f) B/N;
(g) Lot number;
(h) Lot No.;
(i) Lot.

capsule has the same meaning as in the *Therapeutic Goods (Standard for Tablets, Capsules and Pills) (TGO 101) Order 2019*.

Note: The *Therapeutic Goods (Standard for Tablets, Capsules and Pills) (TGO 101) Order 2019* is a legislative instrument published on the Federal Register of Legislation at www.legislation.gov.au.

contact details of the sponsor means information to enable a person to contact the sponsor that:

(a) must include an address that is:
    (i) the sponsor's physical address in Australia; and
    (ii) not a post office, cable, telegraphic or code address; and
(b) may include a telephone number, website or email address.

expiry date has the same meaning as in the Regulations.

expiry date prefix means the prefix which precedes the expiry date, and consists of any words or symbols that clearly indicate that the information following those words or symbols is the expiry date (other than words indicating that the goods may be used after that date, including 'Best by' and 'Best before').

Note: Common forms of the expiry date prefix include (either in lower case, upper case or a combination of upper and lower case letters):

(a) Expiry date;
(b) Expiry;
(c) Expires;
(d) Exp. Date;

(e) Exp;
(f) Use by;
(g) Use before.

manufacturing licence has the same meaning as in subsection 38(1B) of the Act.

MDMA hydrochloride means the substance 3,4-methylenedioxy-N-methylamphetamine hydrochloride with the chemical formula $C_{11}H_{15}NO_2$, HCl.

MDMA hydrochloride product means a therapeutic good that:
(a) contains MDMA hydrochloride as the active ingredient; and
(b) is manufactured in a dosage form for human therapeutic use.

Ph Eur means the European Pharmacopoeia.

Regulations means the *Therapeutic Goods Regulations 1990*.

stated content means the amount or concentration of each substance that is stated on the label to be present in MDMA hydrochloride or a MDMA hydrochloride product.

5 Standard

The matters specified in this instrument constitute a standard for the following:
(a) MDMA hydrochloride; and
(b) MDMA hydrochloride products.

6 Application

This instrument applies to:
(a) MDMA hydrochloride; and
(b) MDMA hydrochloride products.

Part 2—Requirements for MDMA hydrochloride

7 Application of this Part

This Part applies to MDMA hydrochloride.

8 Assay limits

The following assay limits apply in relation to MDMA hydrochloride:
(a) the amount or concentration of MDMA hydrochloride must be not less than 98.0 per cent and not more than 102.0 per cent of the stated content of MDMA hydrochloride, calculated on an anhydrous basis;
(b) the amount or concentration of chloride present in MDMA hydrochloride must be not less than 15.3 per cent and not more than 15.9 per cent of the stated content of chloride.

9 Tests

For each item in the table in Schedule 1, MDMA hydrochloride must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

Part 3—Requirements for MDMA hydrochloride products

10 Application of this Part

This Part applies to MDMA hydrochloride products.

11 General

A MDMA hydrochloride product must:

(a) contain MDMA hydrochloride as the only active ingredient; and

(b) be manufactured in the dosage form of a capsule for oral administration.

12 Assay limits

The average content of MDMA hydrochloride in a pooled sample of not fewer than 20 capsules must be not less than 95.0 per cent and not more than 105.0 per cent of the stated content of MDMA hydrochloride.

13 Tests

(1) Subject to subsection (2), for each item in the table in Schedule 2, a MDMA hydrochloride product must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

(2) This section does not apply to an extemporaneously compounded MDMA hydrochloride product where:

(a) the MDMA hydrochloride used in the manufacture of that product was tested in accordance with the requirements specified in section 9 of this instrument; and

(b) the testing was conducted at a site that is covered by a manufacturing licence granted by the Secretary under Part 3-3 of the Act.

14 Information to be included on the label

(1) The label of a MDMA hydrochloride product, other than a MDMA hydrochloride product that is extemporaneously compounded by a pharmacist for a particular patient, must contain all of the following information:

(a) the name of the MDMA hydrochloride product;

(b) the name of the active ingredient;

(c) the concentration of the active ingredient in mg;

(d) the dosage form;

(e) the quantity of the MDMA hydrochloride product;
(f) the batch number, preceded by the batch number prefix;
(g) the expiry date, preceded by the expiry date prefix;
(h) the name of the sponsor;
(i) the contact details of the sponsor;
(j) the storage conditions applicable to the MDMA hydrochloride product.

(2) All of the information that is required to be included on the label of a MDMA hydrochloride product must be:
(a) in English; and
(b) legible, clearly visible and not obscured; and
(c) durable.

Schedule 1—Specified tests for MDMA hydrochloride

Note: See section 9.

Specified tests			
Column 1 **Item**	**Column 2** **Test**	**Column 3** **Test method**	**Column 4** **Requirement**
1	test for concentration of chloride	Ph Eur 2.2.46	not less than 15.3 per cent and not more than 15.9 per cent of the stated content
2	test for concentration of MDMA hydrochloride	Ph Eur 2.2.46	not less than 98.0 per cent and not more than 102.0 per cent of the stated content, calculated on an anhydrous basis
3	test for heavy metals	Ph Eur 2.4.27	not more than 0.73 ppm of arsenic not more than 0.26 ppm of cadmium not more than 2.3 ppm of cobalt not more than 0.24 ppm of lead not more than 1.4 ppm of mercury not more than 9.5 ppm of nickel not more than 4.6 ppm of vanadium
4	test for related substances	Ph Eur 2.2.46	not more than the limits specified in Ph Eur 2.2.46
5	test for residual acetic acid	Ph Eur 2.4.24	not more than 5000 ppm

Specified tests			
Column 1 **Item**	**Column 2** **Test**	**Column 3** **Test method**	**Column 4** **Requirement**
6	test for residual solvents	Ph Eur 2.4.24	not more than 600 ppm of dichloromethane not more than 290 ppm of hexanes not more than 5000 ppm of isopropyl alcohol not more than 5000 ppm of methyl tertiary-butyl ether not more than 720 ppm of tetrahydrofuran
7	test for impurities	Ph Eur 2.2.46	not more than 0.5 per cent for any single impurity not more than 2.0 per cent for total impurities
8	test for water content	Ph Eur 2.5.12	not more than 2.0 per cent

Schedule 2—Specified tests for MDMA hydrochloride products

Note: See section 13.

Specified tests			
Column 1 **Item**	**Column 2** **Test**	**Column 3** **Test method**	**Column 4** **Requirement**
1	test for average content of MDMA hydrochloride	Ph Eur 2.2.46	not less than 95.0 per cent and not more than 105.0 per cent of the stated content in a pooled sample of not less than 20 capsules
2	test for related substances	Ph Eur 2.2.46	not more than the limits specified in Ph Eur 2.2.46
3	test for residual solvents	Ph Eur 2.4.24	not more than 600 ppm of dichloromethane not more than 290 ppm of hexanes not more than 5000 ppm of isopropyl alcohol not more than 5000 ppm of methyl tertiary-butyl ether not more than 720 ppm of tetrahydrofuran

Attachment B – Draft standard for psilocybin

Please note that the draft orders are not final, but are drafts provided for the purposes of assisting the consultation process, and that they may be subject to change as part of being finalised.

Therapeutic Goods (Standard for Psilocybin) (TGO 113) Order 2023

I,_____ , as delegate of the Minster for Health and Aged Care make the following Order.

Dated 2023

DRAFT ONLY—NOT FOR SIGNATURE

Contents

Part 1—Preliminary

1 Name

(1) This instrument is the *Therapeutic Goods (Standard for Psilocybin) (TGO 113) Order 2023*.

(2) This instrument may also be cited as TGO 113.

2 Commencement

(1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

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3 Authority

This instrument is made under section 10 of the *Therapeutic Goods Act 1989*.

4 Definitions

Note: A number of expressions used in this instrument are defined in subsection 3(1) of the Act, including the following:

(a) batch;
(b) container;
(c) European Pharmacopoeia;
(d) label;
(e) manufacture;
(f) Secretary;
(g) sponsor;
(h) standard;
(i) therapeutic goods;
(j) United States Pharmacopeia-National Formulary.

In this instrument:

Act means the *Therapeutic Goods Act 1989*.

active ingredient has the same meaning as in the Regulations.

batch number means a number, or a combination of numerals, symbols or letters, which is given by the manufacturer to a batch of synthetic psilocybin, plant derived psilocybin or a psilocybin product to uniquely identify that batch.

Note: The batch number may be used to trace the batch through all stages of manufacture and distribution.

batch number prefix means the prefix which precedes the batch number, and consists of any words or symbols that clearly indicate that the information following those words or symbols is the batch number.

Note: Common forms of the batch number prefix include (either in lower case, upper case or a combination of upper and lower case letters):

(a) Batch number;
(b) Batch no.;
(c) Batch;
(d) B;
(e) (B);
(f) B/N;
(g) Lot number;
(h) Lot No.;
(i) Lot.

capsule has the same meaning as in the *Therapeutic Goods (Standard for Tablets, Capsules and Pills) (TGO 101) Order 2019*.

Note: The *Therapeutic Goods (Standard for Tablets, Capsules and Pills) (TGO 101) Order 2019* is a legislative instrument published on the Federal Register of Legislation at www.legislation.gov.au.

contact details of the sponsor means information to enable a person to contact the sponsor that:

(a) must include an address that is:

(i) the sponsor's physical address in Australia; and

(ii) not a post office, cable, telegraphic or code address; and

(b) may include a telephone number, website or email address.

expiry date has the same meaning as in the Regulations.

expiry date prefix means the prefix which precedes the expiry date, and consists of any words or symbols that clearly indicate that the information following those words or symbols is the expiry date (other than words indicating that the goods may be used after that date, including 'Best by' and 'Best before').

Note: Common forms of the expiry date prefix include (either in lower case, upper case or a combination of upper and lower case letters):

(a) Expiry date;
(b) Expiry;
(c) Expires;
(d) Exp. Date;
(e) Exp;
(f) Use by;
(g) Use before.

ICH Q3D guideline document means the ICH Harmonised Guideline: *Guideline for Elemental Impurities Q3D*, as in force from time to time.

Note: The ICHQ3D Guideline is published by the International Council of Harmonisation at www.ich.org.

manufacturing licence has the same meaning as in subsection 38(1B) of the Act.

Ph Eur means the European Pharmacopoeia.

plant derived psilocybin means the following substances:

(a) psilocybin extract;
(b) psilocybin isolate.

plant derived psilocybin product means a therapeutic good that is:

(a) a psilocybin extract product; or
(b) a psilocybin isolate product.

plant material means the dried or fresh fruiting body of the psilocybin mushroom that has not been homogenised.

psilocin means the substance with the chemical formula $C_{12}H_{16}N_2O$.

psilocybin means the substance with the chemical formula $C_{12}H_{17}N_2O_4P$.

psilocybin extract means a substance that is extracted from the psilocybin mushroom that:

(a) contains psilocybin and psilocin; and
(b) may contain other ingredients, including tryptamines.

psilocybin extract product means a therapeutic good that:

(a) contains psilocybin extract as the active ingredient; and

(b) is manufactured in a dosage form for human therapeutic use.

psilocybin isolate means psilocybin that is isolated from the psilocybin mushroom.

psilocybin isolate product means a therapeutic good that:

(a) contains psilocybin isolate as the active ingredient; and

(b) is manufactured in a dosage form for human therapeutic use.

psilocybin mushroom means a mushroom, or part of a mushroom, of the species *Psilocybe cubensis*, including, but not limited to, the fruiting body or mycelium.

psilocybin product means a therapeutic good that is:

(a) a psilocybin extract product; or

(b) a psilocybin isolate product; or

(c) a synthetic psilocybin product.

quantity of the psilocybin product means the stated number of units in the container.

Regulations means the *Therapeutic Goods Regulations 1990*.

stated content means the amount or concentration of each substance that is stated on the label to be present in plant derived psilocybin, synthetic psilocybin or a psilocybin product.

synthetic psilocybin means psilocybin that is produced using precursor ingredients, rather than compounds obtained from the psilocybin mushroom.

synthetic psilocybin product means a therapeutic good that:

(a) contains synthetic psilocybin as the active ingredient; and

(b) is manufactured in a dosage form for human therapeutic use.

tryptamines mean the group of monoamine alkaloids, excluding psilocybin and psilocin, derived from the amino acid tryptophan.

USP means the United States Pharmacopeia-National Formulary.

5 Standard

The matters specified in this instrument constitute a standard for the following:

(a) plant derived psilocybin;

(b) plant derived psilocybin products;

(c) synthetic psilocybin;

(d) synthetic psilocybin products.

6 Application

This instrument applies to:

(a) plant derived psilocybin; and
(b) plant derived psilocybin products; and
(c) synthetic psilocybin; and
(d) synthetic psilocybin products.

Part 2—Requirements for plant derived psilocybin

7 Application of this Part

This Part applies to plant derived psilocybin.

8 Assay limits

(1) The following assay limits apply in relation to psilocybin extract:
   (a) the amount or concentration of psilocybin present in psilocybin extract must be not less than 90.0 per cent and not more than 110.0 per cent of the stated content of psilocybin, calculated on a dried basis;
   (b) the amount or concentration of psilocin present in psilocybin extract must be not less than 80.0 per cent and not more than 120.0 per cent of the stated content of psilocin, calculated on a dried basis;
   (c) the amount or concentration of any nominated tryptamines present in psilocybin extract must be not less than 80.0 per cent and not more than 120.0 per cent of the stated content of the nominated tryptamine, calculated on a dried basis.

(2) The following assay limits apply in relation to psilocybin isolate:
   (a) the amount or concentration of psilocybin present in psilocybin isolate must be not less than 98.0 per cent and not more than 102.0 per cent of the stated content of psilocybin, calculated on a dried basis;
   (b) the amount or concentration of psilocin present in psilocybin isolate must not be more than 2.0 per cent of psilocin, calculated on a dried basis.

9 Identification

Psilocybin mushroom used in the manufacture of psilocybin extract or psilocybin isolate must be able to be positively identified using each of the following identification methods:

(a) macroscopic examination;
(b) microscopic examination;
(c) chromatographic procedures.

10 Tests

For each item in the tables in Parts 1 and 2 of Schedule 1, plant derived psilocybin must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

Part 3—Requirements for plant derived psilocybin products

11 Application of this Part

This Part applies to plant derived psilocybin products.

12 General

(1) Psilocybin extract or psilocybin isolate used in the manufacture of a plant derived psilocybin product must be obtained from the psilocybin mushroom.

(2) A psilocybin extract product must:
  (a) contain psilocybin extract as the only active ingredient; and
  (b) be manufactured in the dosage form of a capsule for oral administration.

(3) A psilocybin isolate product must:
  (a) contain psilocybin isolate as the only active ingredient; and
  (b) be manufactured in the dosage form of a capsule for oral administration.

13 Assay limits

(1) The following assay limits apply in relation to psilocybin extract products:
  (a) the average content of psilocybin in a pooled sample of not fewer than 20 capsules must be not less than 90.0 per cent and not more than 110.0 per cent of the stated content of psilocybin;
  (b) the average content of psilocin in a pooled sample of not fewer than 20 capsules must be not less 90.0 per cent and not more than 110.0 per cent of the stated content of psilocin;
  (c) the average content of any nominated tryptamines in a pooled sample of not fewer than 20 capsules must be not less than 90.0 per cent and not more than 110.0 per cent of the stated content of the nominated tryptamine.

(2) The following assay limits apply in relation to a psilocybin isolate product:
  (a) the average content of psilocybin isolate in a pooled sample of not fewer than 20 capsules must be not less than 90.0 per cent and not more than 110.0 per cent of the stated content of psilocybin isolate.

14 Tests

Psilocybin extract products

(1) Subject to subsection (2), for each item in the table in Part 1 of Schedule 2, a psilocybin extract product must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

(2) This section does not apply to an extemporaneously compounded psilocybin extract product where:
   (a) the psilocybin extract used in the manufacture of that product has been tested in accordance with the requirements specified in section 10 of this instrument; and
   (b) the testing was conducted at a site that is covered by a manufacturing licence granted by the Secretary under Part 3-3 of the Act.

Psilocybin isolate products

(3) Subject to subsection (4), for each item in the table in Part 2 of Schedule 2, a psilocybin isolate product must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

(4) This section does not apply to an extemporaneously compounded psilocybin isolate product where:
   (a) the psilocybin isolate product used in the manufacture of that product has been tested in accordance with the requirements specified in section 10 of this instrument; and
   (b) the testing was conducted at a site that is covered by a manufacturing licence granted by the Secretary under Part 3-3 of the Act.

Part 4—Requirements for synthetic psilocybin

15 Application of this Part

This Part applies to synthetic psilocybin.

16 Assay limits

The following assay limits apply in relation to synthetic psilocybin:
   (a) the amount or concentration of psilocybin present in synthetic psilocybin must be not less than 98.0 per cent and not more than 102.0 per cent of the stated content of psilocybin, calculated on a dried basis;
   (b) the amount or concentration of psilocin present in synthetic psilocybin must not be more than 2.0 per cent of the stated content of psilocin, calculated on a dried basis.

17 Tests

For each item in the table in Schedule 3, synthetic psilocybin must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

Part 5—Requirements for synthetic psilocybin products

18 Application of this Part

This Part applies to synthetic psilocybin products.

19 General

A synthetic psilocybin product must:

(a) contain synthetic psilocybin as the only active ingredient; and

(b) be manufactured in the dosage form of a capsule for oral administration.

20 Assay limits

The average content of synthetic psilocybin in a pooled sample of not fewer than 20 capsules must be not less than 90.0 per cent and not more than 110.0 per cent of the stated content of synthetic psilocybin.

21 Elemental impurities

A synthetic psilocybin product must comply with the requirements for elemental impurities specified in the ICH Q3D guideline document.

22 Tests

(1) Subject to subsection (2), for each item in the table in Schedule 4, a synthetic psilocybin product must comply with the requirements specified in column 4 using the test method specified in column 3, in relation to the test specified in column 2.

(2) This section does not apply to an extemporaneously compounded synthetic psilocybin product where:

(a) the synthetic psilocybin used in the manufacture of that product was tested in accordance with the requirements specified in section 17 of this instrument; and

(b) the testing was conducted at a site that is covered by a manufacturing licence granted by the Secretary under Part 3-3 of the Act.

Part 6—Labelling requirements

23 Application of this Part

This Part applies to psilocybin products.

24 Information to be include on the label

(1) The label of a psilocybin product, other than a psilocybin product that is extemporaneously compounded by a pharmacist for a particular patient, must contain all of the following information:
  (a) the name of the psilocybin product;
  (b) the name of the active ingredient;
  (c) the concentration of the active ingredient in mg;
  (d) the dosage form;
  (e) the quantity of the psilocybin product;
  (f) the batch number, preceded by the batch number prefix;
  (g) the expiry date, preceded by the expiry date prefix;
  (h) the name of the sponsor;
  (i) the contact details of the sponsor;
  (j) the storage conditions applicable to the psilocybin product;
  (k) for a psilocybin extract product—all of the following:
    (i) the amount of psilocybin in mg;
    (ii) the amount of psilocin in mg;
    (iii) the amount of each nominated tryptamine in mg (if any);
    (iv) the quantity of the psilocybin extract and the minimum dry weight or fresh weight of the plant material from which it was prepared, including the word "minimum";
    (v) the words "*Psilocybe cubensis*";
    (vi) the plant part;
    (vii) the preparation type.

(2) All of the information that is required to be included on the label of a psilocybin product must be:
  (a) in English; and
  (b) legible, clearly visible and not obscured; and
  (c) durable.

Schedule 1—Specified tests for plant derived psilocybin

Note: See section 10.

Part 1—Psilocybin extract

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for aflatoxins	Ph Eur 2.8.18	not more than 4 ppb for the sum of aflatoxins B1, B2, G1 and G2
2	test for concentration of psilocin	Ph Eur 2.2.46	not less than 80.0 per cent and not more than 120.0 per cent of the stated content, calculated on a dried basis
3	test for concentration of psilocybin	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content, calculated on a dried basis
4	test for concentration of nominated tryptamines	Ph Eur 2.2.46	not less than 80.0 per cent and not more than 120.0 per cent of the stated content, calculated on a dried basis
5	test for heavy metals	Ph Eur 2.4.27	not more than 1.0 ppm of cadmium not more than 0.1 ppm of inorganic mercury not more than 5.0 ppm of lead
6	test for pesticide residue	Ph Eur 2.8.13	not more than the limits specified in Ph Eur 2.8.13
7	test for residual solvents	Ph Eur 2.4.24	not more than the limits specified in Ph Eur 2.4.24

Part 2—Psilocybin isolate

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for concentration of psilocin	Ph Eur 2.2.46	not more than 2.0 per cent of the stated content, calculated on a dried basis
2	test for concentration of psilocybin	Ph Eur 2.2.46	not less than 98.0 per cent and not more than 102.0 per cent of the stated content, calculated on a dried basis

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
3	test for heavy metals	Ph Eur 2.4.27	not more than the limits specified in Ph Eur 2.4.27
4	test for residual solvents	Ph Eur 2.4.24	not more than the limits specified in Ph Eur 2.4.24

Schedule 2—Specified tests for plant derived psilocybin products

Note: See section 14.

Part 1—Psilocybin extract product

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for average content of psilocin	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content in a pooled sample of not less than 20 capsules
2	test for average content of psilocybin	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content in a pooled sample of not less than 20 capsules
3	test for average content of nominated tryptamines	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content in a pooled sample of not less than 20 capsules
4	test for disintegration	Ph Eur 2.9.1; or USP Chapter 701	not more than the limits specified in Ph Eur 2.9.1 or USP Chapter 701
5	test for related substances	Ph Eur 2.2.46	not more than the limits specified in Ph Eur 2.2.46
6	test for uniformity of weight (mass)	Ph Eur 2.9.5; or USP Chapter 905	not more than the limits specified in Ph Eur 2.9.5 or USP Chapter 905

Part 2—Psilocybin isolate product

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for average content of psilocybin isolate	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content in a pooled sample of not less than 20 capsules

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
2	test for disintegration	Ph Eur 2.9.1; or USP Chapter 701	not more than the limits specified in Ph Eur 2.9.1 or USP Chapter 701
3	test for related substances	Ph Eur 2.2.46	not more than the limits specified in Ph Eur 2.2.46
4	test for uniformity of weight (mass)	Ph Eur 2.9.5; or USP Chapter 905	not more than the limits specified in Ph Eur 2.9.5 or USP Chapter 905

Schedule 3—Specified tests for synthetic psilocybin

Note: See section 17.

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for concentration of psilocin	Ph Eur 2.2.46	not more than 2.0 per cent of the stated content, calculated on a dried basis
2	test for concentration of psilocybin	Ph Eur 2.2.46	not less than 98.0 per cent and not more than 102.0 per cent of the stated content, calculated on a dried basis
3	test for heavy metals	Ph Eur 2.4.27	not more than 55 ppm of aluminium not more than 1.5 ppm of arsenic not more than 0.5 ppm of cadmium not more than 5 ppm of cobalt not more than 0.5 ppm of lead not more than 0.5 ppm of lithium not more than 3 ppm of mercury not more than 20 ppm of nickel not more than 10 ppm of vanadium
4	test for impurities	Ph Eur 2.2.46	not more than 0.5 per cent for any single impurity not more than 8.0 per cent total impurities
5	test for residual solvents	Ph Eur 2.4.24	not more than 5000 ppm of isopropyl alcohol not more than 3000 ppm of methanol not more than 720 ppm of tetrahydrofuran not more than 5000 ppm of triethylamine

Schedule 4—Specified tests for synthetic psilocybin products

Note: See section 22.

Specified tests			
Column 1	**Column 2**	**Column 3**	**Column 4**
Item	**Test**	**Test method**	**Requirement**
1	test for average content of synthetic psilocybin	Ph Eur 2.2.46	not less than 90.0 per cent and not more than 110.0 per cent of the stated content in a pooled sample of not less than 20 capsules
2	test for disintegration	Ph Eur 2.9.1; or USP Chapter 701	not more than the limits specified in Ph Eur 2.9.1 or USP Chapter 701
3	test for related substances	Ph Eur 2.2.46	not more than the limits specified in Ph Eur 2.2.46
4	test for residual solvents	Ph Eur 2.4.24	not more than 5000 ppm of isopropyl alcohol not more than 3000 ppm of methanol not more than 720 ppm of tetrahydrofuran not more than 5000 ppm of triethylamine
5	test for uniformity of weight (mass)	Ph Eur 2.9.5; or USP Chapter 905	not more than the limits specified in Ph Eur 2.9.5 or USP Chapter 905

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Version	Description of change	Author	Effective date
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