

APPENDIX

The Thai Herbal Pharmacopoeia 2021 Supplement 2025 is a supplement publication to the Thai Herbal Pharmacopoeia 2021 where complete information on the quality control of herbal drugs and herbal drug preparations are compiled. Thus, it solely lists the reagents used for tests and assays of the herbal drugs contained herein. For information on the relevant appendices, kindly consult the Thai Pharmacopoeia II 2011 Volume I Part 1, the Thai Pharmacopoeia II Volume I Part 1 Supplement 2020, or the Thai Herbal Pharmacopoeia 2021.

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APPENDIX 1 GENERAL INFORMATION

The specifications given below are strictly for the use of the materials as reagents. The inclusion of a material in this Appendix does not imply that it is suitable for use in medicines. Exceptionally, a trademark or supplier may be indicated for certain reagents whose availability is limited. It is however acceptable to use reagents from another source provided that they comply with the standards of the Pharmacopoeia.

1.1 REAGENTS

The name of a substance or solution indicates a reagent included in the following list. The specifications given for reagents do not necessarily guarantee their quality for use in medicines.

Some of the reagents included may be injurious to health. Important cautions have been stated for these reagents. They should be handled in accordance with good laboratory practice and any relevant regulations.

Reagents in aqueous solution are prepared using water. Where the name of the solvent is not stated, an aqueous solution is intended.

Unless otherwise specified, the reagents and reagent solutions are to be stored in well containers. The labelling should comply with the relevant national legislation.

Alanine $C_3H_7NO_2 = 89.09$

Use an analytical reagent grade of commerce containing not less than 98.0 per cent w/w of $C_3H_7NO_2$.

DESCRIPTION White, crystalline powder; odourless.

SOLUBILITY Freely soluble in *water*; slightly soluble in *ethanol*.

MELTING TEMPERATURE About 297° , with decomposition (Appendix 4.3).

Store in tightly closed containers.

Aluminium Chloride, Anhydrous $AlCl_3 = 133.34$

DESCRIPTION White, crystalline powder; odour, strong of hydrogen chloride.

SOLUBILITY Freely soluble in many organic solvents such as benzophenone, nitrobenzene; soluble in *benzene*, in *carbon tetrachloride*, and in *chloroform*.

MELTING TEMPERATURE About 193° (Appendix 4.3).

Store in tightly closed containers, protected from moisture.

Betulinic Acid $C_{30}H_{48}O_3 = 456.70$

DESCRIPTION White, crystalline powder.

MELTING RANGE 316° to 318° (Appendix 4.3).

Store in tightly closed containers.

Blumeatin $C_{16}H_{14}O_6 = 302.28$

Use an analytical reagent grade of commerce containing not less than 95.0 per cent w/w of $C_{17}H_{14}O_6$.

DESCRIPTION Yellow, crystalline powder.

SOLUBILITY Soluble in *dimethyl sulfoxide*.

Store in tightly closed containers.

Hesperidin $C_{28}H_{34}O_{15} = 610.56$

DESCRIPTION Light brown, crystalline powder.

MELTING RANGE 250° to 255° (Appendix 4.3).

Store in tightly closed containers.

Luteolin $C_{15}H_{10}O_6 = 286.24$ Use an analytical reagent grade of commerce containing not less than 98.0 per cent w/w of $C_{15}H_{10}O_6$.

DESCRIPTION Yellow, crystalline powder.

MELTING TEMPERATURE About 330° (Appendix 4.3).Store in tightly closed containers at a temperature between 2° and 8° , protected from light. **α -Mangostin** $C_{24}H_{26}O_6 = 410.46$ Use an analytical reagent grade of commerce containing not less than 98.0 per cent w/w of $C_{24}H_{26}O_6$.

DESCRIPTION Yellow, crystalline solid.

SOLUBILITY Soluble in *methanol*.MELTING TEMPERATURE About 182° (Appendix 4.3).Store in tightly closed containers at a temperature between 4° and 8° .**Naringin** $C_{27}H_{32}O_{14} = 580.53$ Use an analytical reagent grade of commerce containing not less than 95.0 per cent w/w of $C_{27}H_{32}O_{14}$.

DESCRIPTION Light brown, crystalline powder.

SOLUBILITY Slightly soluble in *water*.MELTING TEMPERATURE About 83° (Appendix 4.3).

Store in tightly closed containers.

Terpinen-4-ol $C_{10}H_{18}O = 154.25$ Use an analytical reagent grade of commerce containing not less than 95.0 per cent w/w of $C_{10}H_{18}O$.

DESCRIPTION Colourless to pale yellow, oily liquid.

SOLUBILITY Soluble in oils; slightly soluble in *water*.BOILING TEMPERATURE About 209° (Appendix 4.6).Store in tightly closed containers, protected from light, and at a temperature between 2° and 8° .