

# ISO 13904:2016-02 (E)

## Animal feeding stuffs - Determination of tryptophan content

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Principle .....</b>	<b>1</b>
<b>3</b>	<b>Reagents and materials .....</b>	<b>1</b>
<b>4</b>	<b>Apparatus .....</b>	<b>3</b>
<b>5</b>	<b>Procedure .....</b>	<b>4</b>
<b>5.1</b>	<b>Preparation of samples .....</b>	<b>4</b>
<b>5.1.1</b>	<b>Feeding stuffs .....</b>	<b>4</b>
<b>5.1.2</b>	<b>Commercial pure substances and premixtures containing more than 2 % of tryptophan ....</b>	<b>4</b>
<b>5.2</b>	<b>Determination of free tryptophan (extract) .....</b>	<b>4</b>
<b>5.2.1</b>	<b>Feeding stuffs .....</b>	<b>4</b>
<b>5.2.2</b>	<b>Commercial pure substances and premixtures containing more than 2 % of tryptophan ....</b>	<b>4</b>
<b>5.3</b>	<b>Determination of total tryptophan (hydrolysates) .....</b>	<b>5</b>
<b>5.4</b>	<b>HPLC determination .....</b>	<b>5</b>
<b>6</b>	<b>Calculation of results .....</b>	<b>6</b>
<b>6.1</b>	<b>Feeding stuffs .....</b>	<b>6</b>
<b>6.2</b>	<b>Commercial pure products and premixtures containing more than 2 % of tryptophan .....</b>	<b>6</b>
<b>6.2.1</b>	<b>Control of the calibration .....</b>	<b>6</b>
<b>6.2.2</b>	<b>Calculation .....</b>	<b>6</b>
<b>7</b>	<b>Precision .....</b>	<b>7</b>
<b>7.1</b>	<b>Interlaboratory test .....</b>	<b>7</b>
<b>7.1.1</b>	<b>Feeding stuffs .....</b>	<b>7</b>
<b>7.1.2</b>	<b>Commercial pure substances and premixtures containing more than 2 % of tryptophan ....</b>	<b>7</b>
<b>7.2</b>	<b>Repeatability .....</b>	<b>7</b>
<b>7.2.1</b>	<b>Feeding stuffs .....</b>	<b>7</b>
<b>7.2.2</b>	<b>Commercial pure substances and premixtures containing more than 2 % of tryptophan ....</b>	<b>7</b>
<b>7.3</b>	<b>Reproducibility .....</b>	<b>7</b>
<b>7.3.1</b>	<b>Feeding stuffs .....</b>	<b>7</b>
<b>7.3.2</b>	<b>Pure products and premixtures containing more than 2 % of tryptophan .....</b>	<b>8</b>
<b>8</b>	<b>Test report .....</b>	<b>8</b>
<b>Annex A (informative)</b>	<b>Results of an interlaboratory test .....</b>	<b>9</b>
<b>Annex B (informative)</b>	<b>Observations on the method .....</b>	<b>11</b>
<b>Annex C (informative)</b>	<b>Sample preparation: Example for analyses in pure products and premixtures .....</b>	<b>12</b>
<b>Annex D (informative)</b>	<b>Results of an interlaboratory test for tryptophan in pure products and premixtures containing more than 2 % of tryptophan .....</b>	<b>13</b>
<b>Bibliography .....</b>		<b>14</b>