

**ANNEX**

Identi- fication number of the additive	Name of the additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	End of period of authori- sation
					mg of active substance/kg of complete feed with a moisture content of 12 %			
Category: technological additives. Functional group: antioxidants.								
1b306i	Tocopherol extracts from vegetable oils	<b>Additive composition</b> Alpha-, beta-, gamma- and delta-tocopherols. with total tocopherols min. 30 %.  Liquid oily form  <b>Characterisation of the active substance</b> Alpha-, beta-, gamma- and delta-tocopherols: — C <sub>29</sub> H <sub>50</sub> O <sub>2</sub> — C <sub>28</sub> H <sub>48</sub> O <sub>2</sub> — C <sub>28</sub> H <sub>48</sub> O <sub>2</sub> — C <sub>27</sub> H <sub>46</sub> O <sub>2</sub> CAS No: — 59-02-9 — 16698-35-4 — 54-28-4 — 119-13-1 Tocopherol extracts, produced by extraction from vegetable oils. Purity criteria: total tocopherols min. 30 %.  Impurities: Zearalenone <sup>(1)</sup>	All animal species	-	-	-	1. In the directions for use of the additive and premixtures, the storage conditions and stability to heat treatment shall be indicated. 2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including skin, eye and breathing protection.	[10 years from the date of entry into force of this Regula- tion. To be complet ed by the Service responsi ble for the publica- tion]

<sup>(1)</sup> It should be ensured that the vegetable oils, from which the tocopherol extracts are produced, are produced from corn and oilseeds that comply with the guidance value levels established for zearalenone in corn (i.e. 2 mg/kg) and oilseeds (i.e. 0.5 mg/kg) destined for feed.

		<p><b>Analytical method <sup>(2)</sup></b></p> <p>For the determination of tocopherol forms (alpha-, beta-, gamma- and delta-tocopherol) in the feed additive:</p> <p>— Gas Chromatography coupled to Flame Ionisation Detection, GC-FID (AOAC 988.14).</p> <p>For the determination of tocopherol forms (alpha-, beta-, gamma- and delta-tocopherol) in premixtures and compound feed:</p> <p>— High-Performance Liquid Chromatography coupled to Ultraviolet or Fluorescence Detection, HPLC-UV/FLD (Commission Regulation (EC) No 152/2009 <sup>(3)</sup>)</p>						
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(2) Details of the analytical methods are available at the following address of the Reference Laboratory: [https://joint-research-centre.ec.europa.eu/eurl-fa-eurl-feed-additives/eurl-fa-authorisation/eurl-fa-evaluation-reports\\_en](https://joint-research-centre.ec.europa.eu/eurl-fa-eurl-feed-additives/eurl-fa-authorisation/eurl-fa-evaluation-reports_en)

(3) 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 L 54, 26.2.2009, pp. 1, ELI: <http://data.europa.eu/eli/reg/2009/152/2025-05-14>).

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					mg of active substance/kg of complete feed with a moisture content of 12 %			
Category: technological additives. Functional group: antioxidants.								
1b306ii	Tocopherol- rich extracts from vegetable oils (delta rich)	<p><b>Additive composition</b></p> <p>Alpha-, beta-, gamma- and delta-tocopherols. with total tocopherols min. 80 % with delta- tocopherol min. 70 %.</p> <p>Liquid oily form</p> <p><b>Characterisation of the active substance</b></p> <p>Alpha-, beta-, gamma- and delta-tocopherols: Chemical formula: — C<sub>29</sub>H<sub>50</sub>O<sub>2</sub> — C<sub>28</sub>H<sub>48</sub>O<sub>2</sub> — C<sub>28</sub>H<sub>48</sub>O<sub>2</sub> — C<sub>27</sub>H<sub>46</sub>O<sub>2</sub> CAS No: — 59-02-9 — 16698-35-4 — 54-28-4 — 119-13-1</p> <p>Tocopherol-rich extracts (delta rich), produced by extraction from vegetable oils. Purity criteria: total tocopherols min. 80 % with delta-tocopherol min. 70 %.</p> <p><b>Analytical method <sup>(2)</sup></b></p> <p>For the determination of tocopherol forms (alpha-, beta-, gamma- and delta-tocopherol) in the feed additive:</p> <p>— Gas Chromatography coupled to Flame Ionisation Detection, GC-FID (AOAC 988.14).</p>	All animal species	-	-	-	1. In the directions for use of the additive and premixtures, the storage conditions and stability to heat treatment shall be indicated. 2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including skin, eye and breathing protection.	[10 years from the date of entry into force of this Regula- tion. To be complet ed by the Service responsi ble for the publica- tion]

		<p>For the determination of tocopherol forms (alpha-, beta-, gamma- and delta-tocopherol) in premixtures and compound feed:</p> <p>— High-Performance Liquid Chromatography coupled to Ultraviolet or Fluorescence Detection, HPLC-UV/FLD (Commission Regulation (EC) No 152/2009)</p>							
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Identi- fication number of the additive	Name of the additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	End of period of authori- sation
					mg of active substance/kg of complete feed with a moisture content of 12 %			
Category: technological additives. Functional group: antioxidants.								
1b307	Alpha- tocopherol	<p><b>Additive composition</b></p> <p>Alpha-tocopherol min. 96 %</p> <p>Liquid oily form</p> <p><b>Characterisation of the active substance</b></p> <p>All-rac-alpha-tocopherol. C<sub>29</sub>H<sub>50</sub>O<sub>2</sub> CAS No: 10191-41-0 Alpha-tocopherol, produced by chemical synthesis. Purity criteria: min. 96 %.</p> <p><b>Analytical method <sup>(2)</sup></b></p> <p>For the determination of all-rac-alpha-tocopherol in the feed additive:</p> <p>— Gas Chromatography coupled to Flame Ionisation detection, GC-FID, including several identification tests (European Pharmacopeia monograph 0692)</p> <p>For the determination of alpha-tocopherol in premixtures and compound feed:</p> <p>— High-Performance Liquid Chromatography coupled to Ultraviolet or Fluorescence Detection, HPLC-UV/FLD (Commission Regulation (EC) No 152/2009)</p>	All animal species	–	–	–	1. In the directions for use of the additive and premixtures, the storage conditions and stability to heat treatment shall be indicated. 2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including skin, eye and breathing protection.	[10 years from the date of entry into force of this Regula- tion. To be complet ed by the Service responsi ble for the publica- tion]