

**EN**  
**ANNEX**

Identi- fication number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	End of period of authorisa- tion
					mg/kg of complete feed with 12 % moisture content			
Category: nutritional additives. Functional group: amino acids, their salts and analogues								
3c412	L-threonine	<b>Additive composition</b> Powder with a minimum of 98,5 % L- threonine and a maximum moisture content of 1 %  <b>Characterisation of the active substance</b>  L-threonine produced with <i>Escherichia coli</i> CGMCC 7.455  Chemical formula: C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>  CAS number: 72-19-5  <b>Analytical method<sup>1</sup></b> For the identification of L-threonine in the feed additive:  – Food Chemical Codex "L-threonine monograph"	All animal species	-	-	-	1. In the directions for use of the additive and premixtures, the storage conditions, the stability to heat treatment and in water shall be indicated.  2. The additive may be used via water for drinking.  3. Feed business operators shall ensure that L-threonine is rumen protected, when administered to ruminants.  4. The labelling of the additive and premixtures shall indicate the following:  — ‘The supplementation with L- threonine, in particular via water for drinking, shall take into account all essential and conditionally essential amino	[10 years from the date of entry into force of this Regulation. To be completed by the OP]

<sup>1</sup> 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).

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					mg/kg of complete feed with 12 % moisture content			
Category: nutritional additives. Functional group: amino acids, their salts and analogues								
		<p>For the determination of threonine in the feed additive:</p> <p>– Ion-exchange chromatography coupled to post-column derivatisation and optical detection (IEC-VIS/FLD) – EN ISO 17180</p> <p>For the determination of threonine in premixtures:</p> <p>– Ion-exchange chromatography coupled to post-column derivatisation and optical detection (IEC-VIS/FLD) – EN ISO 17180 or</p> <p>– Ion-exchange chromatography coupled to post-column derivatisation and optical detection (IEC-VIS) – Commission Regulation (EC) No 152/2009</p> <p>For the determination of threonine in compound feed:</p> <p>– Ion-exchange chromatography coupled to post-column derivatisation and optical detection (IEC-VIS) – Commission Regulation (EC) No 152/2009</p>					<p>acids in order to avoid imbalances.’</p> <p>5. 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 skin, eye and breathing protective equipment.</p>	

Identification number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	End of period of authorisation
					mg/kg of complete feed with 12 % moisture content			
Category: nutritional additives. Functional group: amino acids, their salts and analogues								
		For the determination of threonine in water:  – Ion-exchange chromatography coupled to post-column derivatisation and optical detection (IEC-VIS or IEC-VIS/FLD)						