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# ANNEX

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| Identification number of the feed additive | Name of the holder of authorisation | 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 authorisation |
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| | | | | | | Units of activity/kg of complete feed with a moisture content of 12 % | | | |
| **Category: zootechnical additives. Functional group: digestibility enhancers.** | | | | | | | | | |
| 4a39 | Huvepharma EOOD | Endo-1,4-beta-xylanase (EC 3.2.1.8)<br>Endo-1,4-beta-glucanase (EC 3.2.1.4)<br>Xyloglucan-specific-endo-beta-1,4-glucanase (EC 3.2.1.151) | ***Additive composition***<br>Preparation of endo-1,4-beta-xylanase, endo-1,4-beta-glucanase and xyloglucan-specific-endo-beta-1,4-glucanase produced with *Trichoderma citrinoviride* DSM 33578 having a minimum activity of:<br>Endo-1,4-beta-xylanase: 15 000 EPU ([1])/g,<br>Endo-1, 4-beta-glucanase: 1 000 CU ([2])/g,<br>Xyloglucan-specific endo- beta-1,4-glucanase: 1 000 XGU ([3])/g.<br>Granulated or liquid form.<br><br>***Characterisation of the active substance***<br>Endo-1,4-beta-xylanase (EC 3.2.1.8), endo-1,4-beta-glucanase (EC 3.2.1.4) and | Poultry other than poultry for fattening, poultry reared for laying and reared for breeding<br><br>Porcine species other than sows of all Suidae species | - | Endo-1,4-beta-xylanase 1 500 EPU<br><br>Endo-1, 4-beta-glucanase 100 CU<br><br>Xyloglucan-specific endo-beta-1,4-glucanase 100 XGU | - | 1. In the directions for use of the additive and premixtures, the storage conditions and stability to heat treatment shall be indicated.<br>2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address the potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and | *[10 years from the date of entry into force of this Regulation. To be completed by the Service responsible for the publication]* |

([1]) One EPU unit is the amount of enzyme which liberates 0.0083 micromoles of reducing sugars (xylose equivalents) from oat spelt xylan per minute at pH 4.7 and 50 °C.
([2]) One CU unit is the amount of enzyme that liberates 0.128 micromoles of reducing sugars (glucose equivalents) from barley beta-glucan per minute at pH 4.5 and 30 °C.
([3]) One XGU unit is the amount of enzyme that releases low-molecular fragments from dyed xyloglucan in amount equal to the amount of such fragments liberated from 1 unit enzyme standard under the conditions of the assay (50 ºC and pH 4.5).

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| | | | xyloglucan-specific-endo-beta-1,4-glucanase (EC 3.2.1.151) produced with *Trichoderma citrinoviride* DSM 33578<br><br>***Analytical method (4)***<br>For the determination of endo-1,4-beta-xylanase activity in the feed additive, premixtures and compound feed:<br>— colorimetric method measuring water soluble dye released by action of endo-1,4-beta-xylanase from azurine cross-linked wheat arabinoxylan substrate.<br>For the determination of endo-1,4-beta-glucanase activity in the feed additive, premixtures and compound feed:<br>— colorimetric method based on the quantification of water soluble dyed fragments (azurine) produced by the action of endo-1,4-beta-glucanase on azurine-crosslinked cellulose.<br>For the determination of xyloglucan-specific-endo-beta-1,4-glucanase activity in the feed additive, premixtures and compound feed:<br>— colorimetric method based on the quantification of soluble dyed labelled fragments produced by the action of xyloglucan-specific-endo-beta-1,4-glucanase on xyloglucan substrate. | | | | | premixtures shall be used with personal breathing and skin protective equipment. | |

(4) 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.