

## ANNEX

| Identi-<br>fication<br>number<br>of the<br>additive                                                                                       | Name of the<br>additive                                                | Composition, chemical formula,<br>description, analytical method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Species or<br>category of<br>animal | Maximum<br>age | Minimum<br>content                                                                                             | Maximum<br>content | Other provisions                                                                                                                                                                                                                                                                                                                                                                                                                  | Maximum<br>Residue Limits<br>(MRLs) in the<br>relevant<br>foodstuffs of<br>animal origin                                                                                            | End of<br>period of<br>authorisa-<br>tion                                                  |
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|                                                                                                                                           |                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                | mg sum of astaxanthin,<br>adonirubin and<br>canthaxanthin/kg of<br>complete feed with 12 %<br>moisture content |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                     |                                                                                            |
| Category: sensory additives. Functional group: colourants: (ii) substances which when fed to animals add colours to food of animal origin |                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                |                                                                                                                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                     |                                                                                            |
| 2a(ii)167                                                                                                                                 | Red carotenoid-rich <i>Paracoccus carotinifaciens</i><br>NITE SD 00017 | <b>Additive composition</b><br>Preparation of dried killed cells of <i>Paracoccus carotinifaciens</i> (NITE SD 00017) containing:<br><br>— 20-23 g/kg astaxanthin<br><br>— 7-15 g/kg adonirubin<br><br>— 1-5 g/kg canthaxanthin<br><br><b>Characterisation of the active substance</b><br>Astaxanthin (C <sub>40</sub> H <sub>52</sub> O <sub>4</sub> , CAS: 472-61-7);<br>Adonirubin (C <sub>40</sub> H <sub>52</sub> O <sub>3</sub> , CAS: 511-23801);<br>Canthaxanthin (C <sub>40</sub> H <sub>52</sub> O <sub>2</sub> , CAS: 514-78-3)<br><br><b>Analytical method<sup>1</sup></b> | Salmons<br><br>Trouts               | -              | -                                                                                                              | 100                | 1. In the directions for use of the additive and premixtures, the storage conditions and the stability to heat treatment shall be indicated.<br><br>2. The mixture of the additive with other authorised feed additives containing astaxanthin, adonirubin and/or canthaxanthin is allowed provided that the total concentration of the sum of astaxanthin, adonirubin and canthaxanthin does not exceed 100 mg/kg complete feed. | For salmon: 5 mg/kg for the sum of adonirubin and canthaxanthin/kg muscle (wet tissue)<br><br>For trout: 5 mg/kg for the sum of adonirubin and canthaxanthin/kg muscle (wet tissue) | [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)

| Identi-<br>fication<br>number<br>of the<br>additive                                                                                       | Name of the<br>additive | Composition, chemical formula,<br>description, analytical method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Species or<br>category of<br>animal | Maximum<br>age | Minimum<br>content                                                                                             | Maximum<br>content | Other provisions                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Maximum<br>Residue Limits<br>(MRLs) in the<br>relevant<br>foodstuffs of<br>animal origin | End of<br>period of<br>authorisa<br>tion |
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|                                                                                                                                           |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                | mg sum of astaxanthin,<br>adonirubin and<br>canthaxanthin/kg of<br>complete feed with 12 %<br>moisture content |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                          |                                          |
| Category: sensory additives. Functional group: colourants: (ii) substances which when fed to animals add colours to food of animal origin |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                |                                                                                                                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                          |                                          |
|                                                                                                                                           |                         | <p>For the determination of astaxanthin, adonirubin and canthaxanthin in the feed additive:</p> <p>- Normal phase high performance liquid chromatography (HPLC) coupled to UV/visible detection</p> <p>For the determination of astaxanthin, adonirubin and canthaxanthin in premixtures and compound feed:</p> <p>- Reversed-phase high performance liquid chromatography (HPLC) coupled to UV detection - EN 17550</p> <p>For the determination of the sum of adonirubin and canthaxanthin in fish tissues:</p> <p>- Normal phase high performance liquid chromatography (HPLC) coupled to UV/visible detection</p> |                                     |                |                                                                                                                |                    | <p>3. Indicate in the instructions for use of the additive, premixtures and related feedingstuffs:</p> <p>‘The simultaneous use of the additive in the daily ration with blood meal is not recommended.’</p> <p>4. 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</p> |                                                                                          |                                          |

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|                                                                                                                                           |                         |                                                                  |                                     |                | mg sum of astaxanthin,<br>adonirubin and<br>canthaxanthin/kg of<br>complete feed with 12 %<br>moisture content |                    |                                                                                                                              |                                                                                          |                                           |
| Category: sensory additives. Functional group: colourants: (ii) substances which when fed to animals add colours to food of animal origin |                         |                                                                  |                                     |                |                                                                                                                |                    |                                                                                                                              |                                                                                          |                                           |
|                                                                                                                                           |                         |                                                                  |                                     |                |                                                                                                                |                    | measures, the additive<br>and premixtures shall<br>be used with personal<br>skin, eye and breathing<br>protective equipment. |                                                                                          |                                           |