

**ZAŁĄCZNIK DO SPRAWOZDANIA Z BADAŃ**  
**(ATTACHMENT TO THE RESEARCH REPORT)**

 Załącznika nr Z/1  
 (Attachment no Z/1)

 do próbki/próbek nr 45742/07/25  
 (to sample/samples no)  
 do zlecenia nr Ł/0/07/2025/3131  
 (to order/orders no)

**Alkaloidy pirolizydynowe**  
**(Pyrrolizidine alkaloids)**

|                                                           |                                                 |
|-----------------------------------------------------------|-------------------------------------------------|
| <b>Nazwa/Opis próbki</b><br>(Name/sample description)     | Candida Myco Spectrum                           |
| <b>Data rozpoczęcia badań</b><br>(Test start date)        | 25.07.2025                                      |
| <b>Data zakończenia badań</b><br>(Test end date)          | 05.08.2025                                      |
| <b>Metoda/dok. odniesienia</b><br>(Reference method/doc.) | HM-MA-M 02-055, LC-MS/MS: 2022-01; obliczeniowo |

| Badany parametr<br>(Test parameter)                                                                   | j.m.<br>(Unit) | Wynik<br>(Result) | U |
|-------------------------------------------------------------------------------------------------------|----------------|-------------------|---|
| N-tlenek echimidyny<br>(Echimidine N-oxide)                                                           | µg/kg          | <10               | 5 |
| N-tlenek heliosupiny<br>(Heliosupine N-oxide)                                                         | µg/kg          | <10               | 5 |
| Echimidina/Heliosupina, suma<br>(Echimidine/Heliosupine, sum)                                         | µg/kg          | <10               | 5 |
| N-tlenek echinatyny<br>(Echinatine N-oxide)                                                           | µg/kg          | <10               | 5 |
| Europina<br>(Europine)                                                                                | µg/kg          | <10               | 5 |
| N-tlenek erucyfoliny<br>(Europine N-oxide)                                                            | µg/kg          | <10               | 5 |
| Heliotryna<br>(Heliotrine)                                                                            | µg/kg          | <10               | 5 |
| N-tlenek heliotryny<br>(Heliotrine N-oxide)                                                           | µg/kg          | <10               | 5 |
| N-tlenek integerryminy/N-tlenek senecjoniny, suma<br>(Integerrimine N-oxide/Senecionine N-oxide, sum) | µg/kg          | <10               | 5 |
| Intermedyna<br>(Intermedyna)                                                                          | µg/kg          | <10               | 5 |
| N-tlenek intermedyny/N-tlenek indycyny, suma<br>(Intermedin N-oxide/Indicin N-oxide, sum)             | µg/kg          | <10               | 5 |
| Lasiokarpina<br>(Lasiocarpine)                                                                        | µg/kg          | <10               | 5 |
| N-tlenek lasiokarpiny<br>(Lasiocarpine N-oxide)                                                       | µg/kg          | <10               | 5 |
| Likopsamina/Indycyna, suma<br>(Lycopsamine/Indicine, sum)                                             | µg/kg          | <10               | 5 |
| N-tlenek likopsaminy<br>(Lycopsamine N-oxide)                                                         | µg/kg          | <10               | 5 |
| Retrorsyna/Usaramina, suma<br>(Retrorsine/Usaramine, sum)                                             | µg/kg          | <10               | 5 |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------|---|
| N-tlenek retrorsyny/N-tlenek usaraminy, suma<br>(Retrorsine N-oxide/Usaramine N-oxide, sum)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | µg/kg | <10                             | 5 |
| Rinderina/Echinatina, suma<br>(Rinderine/Echinatine, sum)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | µg/kg | <10                             | 5 |
| N-tlenek rinderiny<br>(Rinderine N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | µg/kg | <10                             | 5 |
| Senecjonina<br>(Senecionine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | µg/kg | <10                             | 5 |
| Senecyfilina<br>(Seneciphylline)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | µg/kg | <10                             | 5 |
| N-tlenek senecyfiliny<br>(Seneciphylline N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | µg/kg | <10                             | 5 |
| Senecywernina/Integrerrimina, suma<br>(Senecivernine/Integerrimine, sum)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | µg/kg | <10                             | 5 |
| N-tlenek senecywerniny<br>(Senecivernine N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | µg/kg | <10                             | 5 |
| Senkirkina<br>(Senkirkine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | µg/kg | <10                             | 5 |
| Spartoidyna<br>(Spartoidine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | µg/kg | <10                             | 5 |
| N-tlenek spartoidyny<br>(Spartoidine N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | µg/kg | <10                             | 5 |
| Erucifolina<br>(Erucifoline)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | µg/kg | <10                             | 5 |
| N-tlenek erucyfoliny<br>(Erucifoline N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | µg/kg | <10                             | 5 |
| Jakobina<br>(Jacobine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | µg/kg | <10                             | 5 |
| N-tlenek jakobiny<br>(Jacobine N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | µg/kg | <10                             | 5 |
| Monokrotalina<br>(Monocrotaline)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | µg/kg | <10                             | 5 |
| N-tlenek monokrotaliny<br>(Monocrotaline N-oxide)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | µg/kg | <10                             | 5 |
| Trichodesmina<br>(Trichodesmine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | µg/kg | <10                             | 5 |
| Alkaloidy pirolizydynowe, suma BfR-28 / Ph.EUR. 2.8.26 <sup>1</sup><br>(Pyrrolizidine alkaloids, sum BfR-28/ Ph.EUR. 2.8.26) <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | µg/kg | Nie wykryto<br>(Not detectable) |   |
| Alkaloidy pirolizydynowe, suma VO 2023/915 <sup>1</sup><br>(Pyrrolizidine alkaloids, sum VO 2023/915) <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | µg/kg | Nie wykryto<br>(Not detectable) |   |
| <p>U – niepewność rozszerzona pomiaru przy poziomie ufności ok. 95% i współczynniku rozszerzenia k=2, nie uwzględnia niepewności pobierania próbek, za wyjątkiem przypadków, gdy zostało to zaznaczone w uwagach.<br/>(U- the expanded uncertainty of measurement with a confidence level of approximately 95% and a coverage factor of k=2, does not take into account sampling uncertainty, except where stated in the notes.)</p> <p><b>Uwagi (Remarks):</b></p> <p><sup>1</sup> Alkaloidy pirolizydynowe, suma BfR-28 / Ph.EUR. 2.8.26- Badanie wykonano metodą obliczeniową i nie jest objęte akredytacją numer D-PL-14170-01-00<br/><sup>1</sup> (Pyrrolizidine alkaloids, sum BfR-28/ Ph.EUR. 2.8.26)- The test was performed by calculation method and is not covered by accreditation number D-PL-14170-01-00</p> <p><sup>1</sup> Alkaloidy pirolizydynowe, suma VO 2023/915- Badanie wykonano metodą obliczeniową i nie jest objęte akredytacją numer D-PL-14170-01-00<br/><sup>1</sup> (Pyrrolizidine alkaloids, sum VO 2023/915) - The test was performed by calculation method and is not covered by accreditation number D-PL-14170-01-00.</p> |       |                                 |   |

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| <b>Sporządzono dnia:</b><br>(Date Prepared)<br>06.08.2025 | <b>Autoryzował wyniki:</b><br>(Authorized result)<br>Podwykonawca<br>(Subcontractors) | <b>Opracował załącznik:</b><br>(Prepared the attachment):<br>Pracownik GBA Polska nr. 2566<br>(Employee GBA Poland no. 2566) |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|

**Koniec Załącznika**  
(End of Attachment)