

Datasheet a-Zearalenol-D4

Reference number : EU/CRL: 48

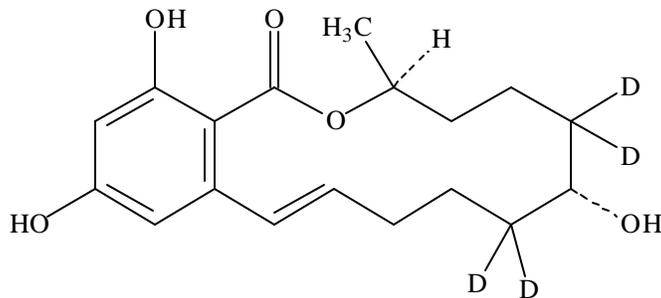
Date of preparation : 1997.05.22

date : 17 January 2003

source : RIVM

“Bank of Reference Standards”

**The Bank of Reference Standards was financially supported by the European Commission
Directorate General “Science, Research and Development DG XII”
Contract MAT 1 - CT92 - 0020**



a-ZEARALENOL-d4

Name : 2,4-dihydroxy-6,[6 α , 10-dihydroxy trans-1-undecenyl] benzoic acid μ lactone
 Synonym : α -Zearalenol-D4
 Molecular formula : C₁₈H₂₀D₄O₅
 Cas # : not available
 Molecular weight : 324.2
 Indication of purity: > 95 %
 Last update : 1998.01.06

Note: Ampoules also contain α -zearalenol-D5

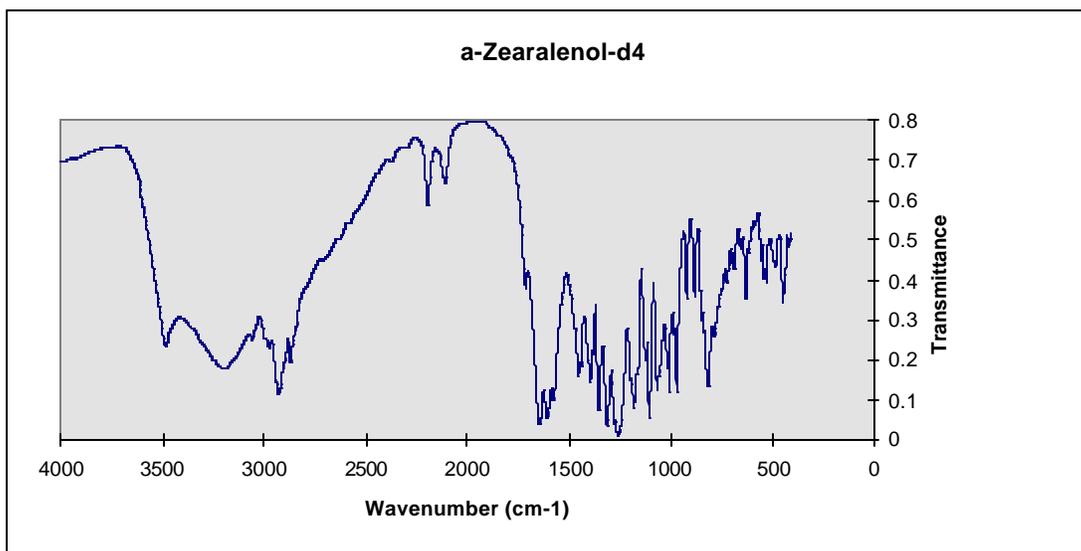
Methods used for characterization

- I IR spectroscopy
- II UV spectroscopy
- III Mass spectrometry
- IV Mass spectrometry after TMS derivatisation

I IR-SPECTROSCOPY

Instrument: Bruker IFS-55 FTIR; detector DTGS

Sampling technique: KBr-tablet.



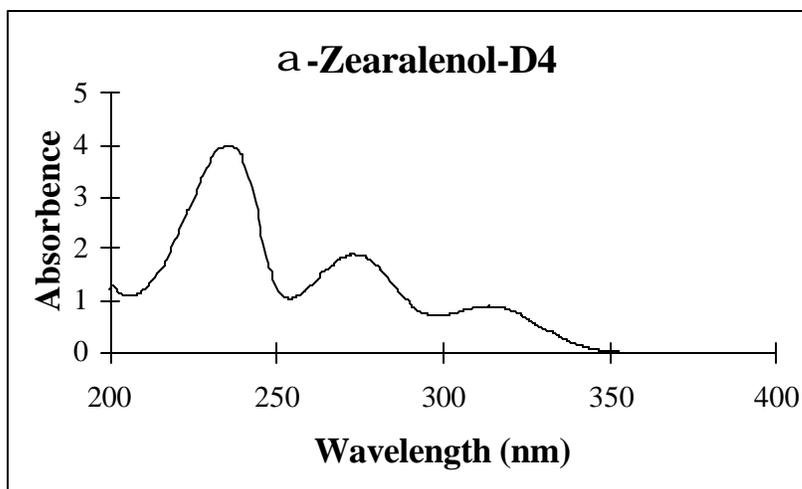
II UV SPECTROSCOPY

Instrument: Cary 3 UV-Visible Spectrophotometer.

Concentration α -zearalenol-D4 = 0.154 mM ; solvent : methanol

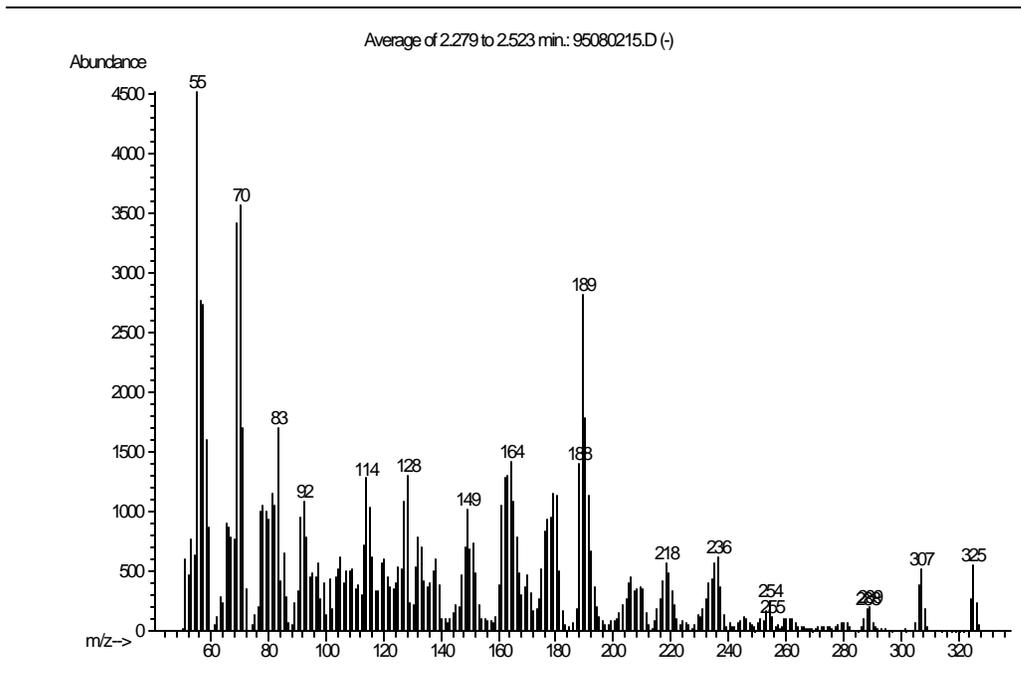
$\epsilon_{313.5 \text{ nm}} = 5720$

$\epsilon_{273.5 \text{ nm}} = 12260$



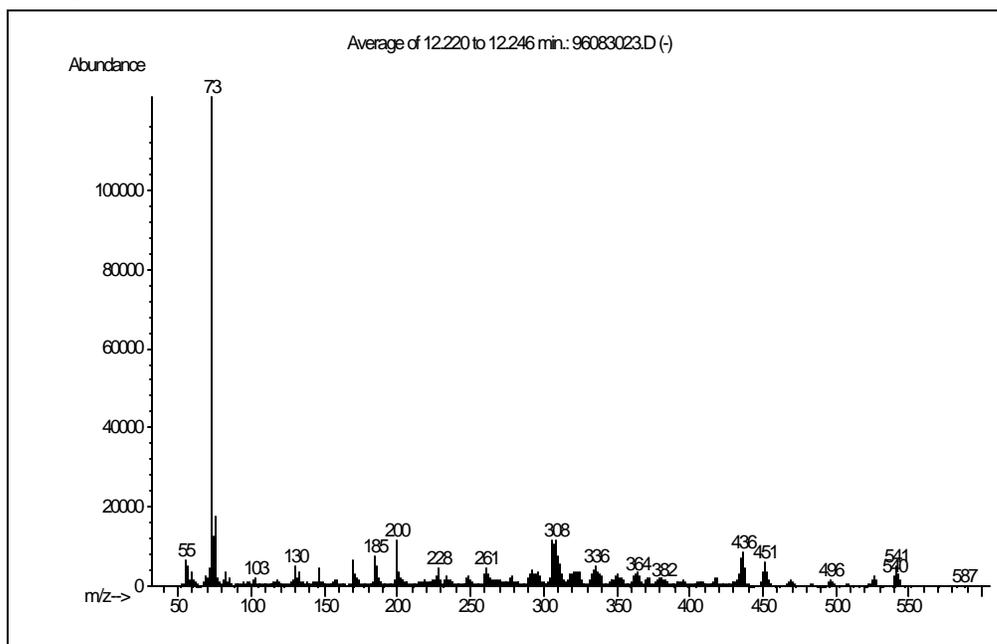
III MASS-SPECTROMETRY

Instrument: Hewlett Packard 5989 A MS
GC-MS spectrum, DIP = direct inlet probe



IV MASS-SPECTROMETRY AFTER TMS DERIVATISATION

Instrument: Hewlett Packard 5970 MSD
MS spectrum, Full Scan (EI)



Full scan (EI) : α -Zearalenol-D4 derivatized with MSTFA