Moniliformin sodium salt
from *Fusarium proliferatum*

Product Number M 5269
Storage Temperature 2-8 °C

**Product Description**
Molecular Formula: C₄H₅O₃Na
Molecular Weight: 120.0
CAS Number: 71376-34-6
pKₐ: 1.70
λ_max: 229 nm, 260 nm (H₂O, methanol)¹,²
Extinction coefficient: Eₙmm = 19.1 (H₂O), 18.0 (methanol)² (229 nm); 5.6 (H₂O), 5.0 (methanol)² (260 nm)
Synonym: 3-hydroxycyclobut-3-ene-1,2-dione sodium salt

Moniliformin is a mycotoxin that occurs naturally in various strains of *Fusarium*, including *F. moniliforme*, *F. moniliforme* var. *subglutinans*, and *F. flusarioides*.¹-³ Moniliformin occurs naturally as the sodium or potassium salt.¹ Its toxicological properties have been studied in rats and include progressive muscular weakness, respiratory distress, and cyanosis.³ The isolation of moniliformin by ion exchange chromatography and by charcoal column chromatography has been described.²

A study on PK15 porcine kidney epithelial cells has used moniliformin derived from extracts of *Fusarium avenaceum* found in Norwegian cereals, where the extracts were analyzed by HPLC.⁴ Cultured spores from unpolished (rough) rice that exhibited *Fusarium* sheath rot disease or panicle blight have been shown to produce moniliformin.⁵ The inhibition of gluconeogenesis and cell viability in cultured primary chicken embryo hepatocytes by moniliformin and other *Fusarium* metabolites has been investigated.⁶

A method that combines HPLC with atmospheric pressure chemical ionization MS has been described for the analysis of moniliformin from cultures of *Fusarium subglutinans* and from naturally contaminated maize.⁵

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**
This product is soluble in water (10 mg/ml), yielding a clear, light yellow solution.

**References**

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