



[Advanced](#)

Search

[User Guide](#)

Save

Email

Send to

Display options 

[Comparative Study](#) > [J AOAC Int.](#) 1997 Jul-Aug;80(4):725-31.

## Determination of ethoxyquin in feeds by liquid chromatography: collaborative study

C J Schreier <sup>1</sup>, R J Greene

Affiliations + expand

PMID: 9241836

### Abstract

Ethoxyquin is a chemical antioxidant used in feeds, ingredients, fats, and oils. A liquid chromatographic (LC) method for determination of ethoxyquin was developed. The method involves acetonitrile extraction of the sample and isocratic C18 reversed-phase chromatography with ammonium acetate buffer-acetonitrile as mobile phase and fluorescence detection. A collaborative study of the determination of ethoxyquin in various meals and extruded pet foods was conducted by The Iams Company Research Laboratory. Eleven laboratories analyzed 16 samples (including 2 blind duplicates) consisting of 7 meat meals and 9 extruded pet foods. Sample means ranged from 0.25 to 289 ppm. Repeatability standard deviations ranged from 0.08 to 3.2 ppm, and repeatability relative standard deviations ranged from 4.5 to 32%. Reproducibility standard deviations ranged from 0.12 to 13 ppm, and reproducibility relative standard deviations ranged from 4.5 to 55%. The LC method for determination of ethoxyquin in feeds has been adopted first action by AOAC INTERNATIONAL.

[PubMed Disclaimer](#)

### Similar articles

[Liquid chromatographic determination of monensin in premix and animal feeds: collaborative study.](#)

Coleman MR, Moran JW, Mowrey DH.

[J AOAC Int.](#) 1997 Jul-Aug;80(4):693-702.

PMID: 9241834

[Gas chromatographic determination of ethoxyquin in feed and food products. II.](#)

Dahle HK, Skaare JU.

[J Agric Food Chem.](#) 1975 Nov-Dec;23(6):1093-5. doi: 10.1021/jf60202a025.

PMID: 1194570 No abstract available.

[Gas chromatographic-chemiluminescence method for determination of volatile N-nitrosamines in minced fish-meat and surimi-meat frankfurters: collaborative study.](#)

Pensabene JW, Fiddler W, Phillips JG.

[J Assoc Off Anal Chem.](#) 1990 Nov-Dec;73(6):947-52.

PMID: 2289927

[Determination of the Synthetic Antioxidant Ethoxyquin and Its Metabolites in Fish and Fishery Products Using Liquid Chromatography-Fluorescence Detection and Stable-Isotope Dilution Analysis-Liquid Chromatography-Tandem Mass Spectrometry.](#)

Kranawetvogl A, Elsinghorst PW.

#### ACTIONS

“ Cite

🔖 Collections

#### SHARE



#### PAGE NAVIGATION

< Title & authors

Abstract

Similar articles

Publication types

MeSH terms

Substances

Related information

LinkOut - more resources

J Agric Food Chem. 2019 Jun 12;67(23):6650-6657. doi: 10.1021/acs.jafc.9b01508. Epub 2019 May 30.  
PMID: 31094514

### Ethoxyquin: An Antioxidant Used in Animal Feed.

Błaszczak A, Augustyniak A, Skolimowski J.

Int J Food Sci. 2013;2013:585931. doi: 10.1155/2013/585931. Epub 2013 Apr 30.

PMID: 26904606 **Free PMC article.** Review.

[See all similar articles](#)

## Publication types

- [Comparative Study](#)
- [Multicenter Study](#)

## MeSH terms

- [Acetonitriles / chemistry](#)
- [Animal Feed / analysis\\*](#)
- [Animals](#)
- [Buffers](#)
- [Chromatography, Liquid / methods](#)
- [Chromatography, Liquid / standards](#)
- [Chromatography, Liquid / veterinary\\*](#)
- [Ethoxyquin / analysis\\*](#)
- [Ethoxyquin / metabolism](#)
- [Fish Products / analysis\\*](#)
- [Guidelines as Topic](#)
- [Meat Products / analysis\\*](#)
- [Poultry Products / analysis\\*](#)
- [Reference Standards](#)
- [Reproducibility of Results](#)

## Substances

- [Acetonitriles](#)
- [Buffers](#)
- [Ethoxyquin](#)
- [acetonitrile](#)

## Related information

[PubChem Compound \(MeSH Keyword\)](#)

## LinkOut – more resources

### Other Literature Sources

[The Lens - Patent Citations Database](#)

[NCBI Literature Resources](#) [MeSH](#) [PMC](#) [Bookshelf](#) [Disclaimer](#)

The PubMed wordmark and PubMed logo are registered trademarks of the U.S. Department of Health and Human Services (HHS). Unauthorized use of these marks is strictly prohibited.

## FOLLOW NCBI



Connect with NLM



National Library of  
Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

Web Policies  
FOIA  
HHS Vulnerability  
Disclosure

Help  
Accessibility  
Careers

NLM | NIH | HHS | USA.gov