

*Official Methods  
of Analysis*

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## TIPS AND TRICKS FOR SEARCHING OMA

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### Method Number Index

- Click on the Method Number Index then use Ctrl F (PC) or Command F (Mac) key in the number. The numbers are hyperlinked and will take you directly to the method. **Note:** when you first click on the hyperlink it will take you to the first method in the chapter, the site hesitates for a few seconds and then jumps you to the method. You may need to scroll up or down slightly to the top of the method.

### Subject Index

- Click on the Subject Index then Ctrl F or Command F (Mac), enter in your search term (example: amino acids) all examples of amino acids will be highlighted. Once you find the method you want click on the hyperlink (see note above).

### SMPR Index

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## Printing Methods in OMA

Highlight the method, right-click, select print, and print to a PDF or print to the printer.

Another option would be to open the PDF once you are in the chapter, however, this could take time depending on the size of the chapter. Again, use ctrl F or Comm F to find the method you need (take note of the page numbers see screenshot 2), right-click, select print, and key in the page numbers you want to print (print to the printer or to a pdf).

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### 50.15.03 AOAC Official Method 2019.09 Total Proteinogenic Amino Acids and Taurine in Infant Formula and Adult/Pediatric Formula: Precolumn Derivatization and UHPLC

First Action 2019

[Applicable to determination of free and/or total proteinogenic L- $\alpha$ -amino acids, hydroxyproline, and taurine in all forms of infant, adult, and/or pediatric formulas (powders, ready-to-feed liquids, and liquid concentrates). Method is not suitable for tryptophan, which is partially degraded during acid hydrolysis.]

**Caution:** Analysts using the procedure should be familiar with good laboratory practice. It is the responsibility of the analyst to ensure they are familiar with appropriate SDSs and safety practices for all chemicals and equipment utilized. Typical examples of laboratory safety are shown in Figure 2019.09.

**Figure 2019.09**

	Protective lab coat: avoid for work		Hazard: Wear eye protection		Sample: Wear gloves
	Hazard: Wear face mask		Hazard: Wear Heat Resistant Gloves		Caution
	Hydrolyzed liquid: Wear gloves, safety glasses, use fume hood when possible		Dye: Wear gloves, safety glasses, use fume hood		Caution: sharp object
	Hot liquid		Hazard: Flame		Hot surface

Examples of laboratory safety details.

#### A Principle

Samples are hydrolyzed in 6 M HCl for 24 h at  $110 \pm 5^\circ\text{C}$  in presence of phenol, 3,3'-dithiodipropionic acid (DTDPA) and the internal standard norvaline. Phenol is added to prevent halogenation of tyrosine. DTDPA is added to convert cysteine and cystine to S-2-carboxylethylthiocysteine (CYSx), and derivatized samples are quantified against DTDPA derivatized calibration standard.

After neutralization, amino acids (AA) and CYSx are derivatized with 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate (AQC) and are separated using reverse-phase UHPLC with UV detection at

<https://doi.org/10.5740/jaoacint.19-0036>

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