

# AMMONIUM DIHYDROGEN PHOSPHATE

*Prepared at the 27th JECFA (1983), published in FNP 28 (1983) and in FNP 52 (1992). Metals and arsenic specifications revised at the 59th JECFA (2002) A group MTDI of 70 mg/kg bw, as phosphorus from all food sources, was established at the 27th JECFA (1983)*

## SYNONYMS

Monobasic ammonium phosphate, monoammonium phosphate, acid ammonium phosphate, primary ammonium phosphate; INS No. 342(i)

## DEFINITION

Chemical names	Ammonium dihydrogen phosphate, ammonium dihydrogen tetraoxophosphate, monoammonium monophosphate, ammonium dihydrogen orthophosphate
C.A.S. number	7722-76-1
Chemical formula	$\text{NH}_4\text{H}_2\text{PO}_4$
Formula weight	115.03
Assay	Not less than 96% and not more than 102%

## DESCRIPTION

Colourless or white crystals, a white crystalline powder or granules

## FUNCTIONAL USES

Buffering agent, dough conditioner, leavening agent

## CHARACTERISTICS

### IDENTIFICATION

<u>Solubility</u>	Freely soluble in water
<u>pH</u> (Vol. 4)	4.3 - 5.0 (1 in 100 soln)
<u>Test for ammonium</u> (Vol. 4)	Passes test
<u>Test for phosphate</u> (Vol. 4)	Passes test

### PURITY

<u>Fluoride</u> (Vol. 4)	Not more than 10 mg/kg (Method I or III)
<u>Arsenic</u> (Vol. 4)	Not more than 3 mg/kg
<u>Lead</u> (Vol. 4)	Not more than 4 mg/kg Determine using an atomic absorption technique appropriate to the specified level. The selection of sample size and method of sample preparation may be based on the principles of the method described in Volume 4, "Instrumental Methods."

**METHOD OF  
ASSAY**

Dissolve about 500 mg of the sample, accurately weighed, in 50 ml of water, and titrate to a pH of 8.0 with 0.1 N sodium hydroxide. Each ml of 0.1 N sodium hydroxide is equivalent to 11.50 mg of  $\text{NH}_4\text{H}_2\text{PO}_4$ .