

AMMONIUM POLYPHOSPHATE (water-soluble APP 201)

Halogen free retardants for polymers

PRODUCT BRIEF

Ammonium polyphosphate is a halogen free retardant. It is an inorganic polymer that has a low polymerization degree ($n \approx 100$), polyphosphoric acid and ammonia compound. It is a white, water-soluble powder. Due to decomposition point of 150 °C, its use in polymers is limited. Ammonium polyphosphate-I is used in water-based paints, in paper, fabric and wood impregnation.

APPLICATIONS

When APP-I is heated, phosphoric acid, which serves as a catalyst of carbonization and foaming, evolves. It allows the product to be used in the production of fire retardants and for wood, plywood, fiberboard, paper, fiber fire-proofing.

DOSAGE

- in water-based paints up to 30% of total mass
- in adhesives up to 20% of adhesive total mass

SPECIFICATIONS

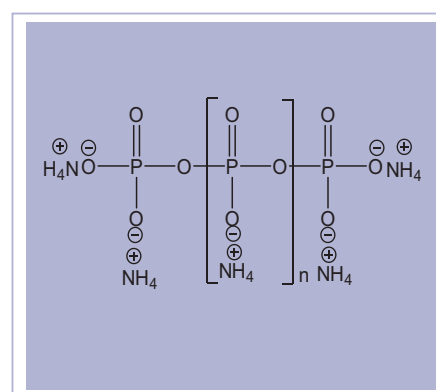
Particle size, μm	up to 40
Filtrate's pH, 10% of suspension	5,0-7,0
Decomposition point, °C	≤ 150
Water solubility at 20 °C, g/100ml	≤ 45
P content, %	20-25

CHEMICAL SAFETY DATA SHEET

According to GOST 12.1.007 the product is a low hazardous substance (4th category).
 May be harmful if swallowed.

Producer: Novochem LLC (Tomsk)
 Ammonium polyphosphate (APP 201), Specifications 20.13.42.130-033-67017122-2019

Structural formula



Molecular formula: $(\text{NH}_4\text{P}_3\text{O}_{10})_n$,
 $n \approx 100$