

# Airquest

Phosphonates



# Airquest

## Description & key applications

Phosphonates are a derivatives of phosphorous acid in which the hydrogen atom attached to the phosphorous atom has been replaced with another grouping, essentially forming a compound with a C-P bond.

**Airquest phosphonates are generally applicable wherever water is used in a process.**

**More specific applications are:**



## Useful properties



### SCALE INHIBITION

Good ability at suppressing the precipitation of certain compounds, typically referred to as scales. Phosphonates exhibit what is referred to as threshold inhibition. Many molecules of scale can be kept in solution for every phosphonate molecule present as long as the concentration of phosphonate is kept above a certain threshold.



### SEQUESTRATION

Sometimes referred to as chelation is the ability of substances to form stable, water-soluble complexes with metal ions. Airquest phosphonates can suppress unwanted effects in processes such as precipitation and the decomposition of bleach liquors.



### CORROSION INHIBITION

Metal corrosion in water systems is a constant issue. Airquest phosphonates can counter this by forming a protective film over metal surfaces which interferes with the oxygen reduction process associated with corrosion.



### DISPERSION & DEFLOCCULATION

Airquest phosphonates have the ability to disperse and deflocculate suspensions of particles. This is due to them being highly charged anions which when absorbed onto surfaces exert strong repulsive forces.

# Airquest ATMP

## Amino Trismethylene Phosphonic Acid

### Description

- Airquest ATMP is a solution of Amino Trismethylene Phosphonic Acid that is used in various detergents and water treatment.
- It is a calcium scale inhibitor, metal sequestrant & corrosion inhibitor.
- Is an excellent calcium carbonate inhibitor with a reasonable tolerance to bromine and chlorine dioxide
- 50% w/w aqueous acid solution

### Key Applications

- Used in industrial and institutional cleaning formulations as well as bleach stabilisation
- In metal treatment it is used as a ferrous metal corrosion inhibitor
- De-inking of recycled paper
- Scale control in cooling water & oilfield applications
- Sequestrant for textile dyeing
- Laundry detergent formulations
- Various textile dyeing applications

### Pack Sizes





# Airquest C

## Nitrilotriacetic acid replacement

### Description

- Airquest C is an NTA alternative that helps reduce the effects of calcium and magnesium ions in hard water.
- It is an excellent calcium carbonate and barium sulphate inhibitor above pH7
- Good mild steel corrosion inhibitor

### Key Applications

- Used as a sequestrant in toilet cleaning products as well as industrial strength cleaning solutions.
- Laundry & dishwash detergents
- Good mild steel corrosion inhibitor in soft water
- Sequestrant in cosmetics and in textile dyeing
- Scale and corrosion control in cooling water and oil field applications

### Pack Sizes



# Airquest HEDP60

1-hydroxyethylidene-1,1-diphosphonic acid

## Description

- Airquest HEDP 60 is a solution of 1-hydroxyethylidene-1,1-diphosphonic acid, used in detergents, water treatment, cosmetics and pharmaceuticals as a sequestrant for calcium, iron and other metals.
- Airquest HEDP 60 is an excellent calcium carbonate inhibitor, barium sulphate inhibitor above pH7 and is a good mild steel corrosion inhibitor in soft water with reasonable tolerance to chlorine and chlorine dioxide.
- 60% w/w active acid aqueous solution

## Pack Sizes



## Key Applications

- Industrial and institutional cleaning formulations
- Useful in development of 'green' formulations.
- Stabiliser for hydrogen peroxide in transport
- Sequestrant in cosmetics, toilet cleaners and textile dyeing
- Controlling of calcium carbonate scale and corrosion in cooling systems.
- Holds various applications in cooling water, boiler water treatment and swimming pools
- Highly water soluble and stable under harsh conditions making it ideal for water treatment applications.
- Scale control in Reverse Osmosis systems

# Airquest KAT

potassium salt of ATMP

## Description

- Airquest KAT is the potassium salt of ATMP used in detergents, water treatment and as a corrosion inhibitor.
- It is an excellent calcium scale inhibitor and metal sequestrant with a reasonable tolerance to bromine and chlorine dioxide

## Key Applications

- Industrial and institutional cleaning formulations
- Laundry detergent formulations
- Ferrous metal corrosion inhibitor
- Scale control in cooling water & oilfield applications
- De-inking of recycled paper
- Textile dyeing

## Pack Sizes





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