

Specialty chemicals for **Home Care** applications from **Italmatch AWS**

Introducing Italmatch Chemicals

Leading innovative chemicals group, majoring performance additives and specialty solutions to satisfy the most demanding applications in the Lubricant, Plastics, Water, Oil & Gas and Mining markets.

 Founded in Italy - Active throughout the world



Sustainability and regulatory compliance

We are passionately committed to helping our customers meet today's (and tomorrow's) increasingly demanding sustainability targets and regulatory requirements, especially by conserving water, minimising waste and promoting energy efficiency.

Why partner with us?

Fresh synergies

Dedicated R&D and Technical Support teams

Innovative solutions

Worldwide production facilities



Italmatch in numbers

4

Resilient markets - We are a leading global player in each

€850m

Annual pro forma sales

1200+

Employees

19

Manufacturing sites around the world

7

State-of-the-art R&D sites driving innovation

20%

Of our products have been developed in the last 5 years

100

Patents granted with 30 patent families

100

Strong research, development and technical support team

Advanced Water Solutions brings you a unique set of ingredients designed for Household Care products - including phosphonates, carboxymethyl inulin and low molecular weight polymers.



More than 40 years ago, DEQUEST® pioneered the development of phosphonate based antiscalants.

DEQUEST® phosphonates have been the product of choice for scale prevention, dispersion, bleach stabilization, chelation and metal corrosion inhibition in various applications for many years.

Recently, carboxymethyl inulin has been added to the DEQUEST® line up in order to offer a biodegradable scale inhibitor/dispersant derived from a natural source.

DEQUEST® products can be easily formulated in liquid, powder, granulated and tablet types of detergents.

They can be incorporated by spray-drying, spray-mixing, dry blending or straight mixing of liquids. Their solubility in water is high and they show excellent compatibility with other detergent ingredients.

The high purity of the DEQUEST® phosphonates means that customers obtain maximum performance. Performance is shown to be directly related to purity.

Our long manufacturing experience and stringent process controls ensure our customers receive a consistent quality product that does not vary from shipment to shipment.

As a major supplier of material to the detergent industry, Advanced Water Solutions can provide technical service and assistance to customers on formulation and processing of phosphonates and Inulin derivatives in detergents and cleaners.

Physical and Chemical properties

Strong sequestration of heavy transition metal ions

Strong scale inhibition of phosphate, carbonate and sulphate scales

Dispersion and deflocculation of solids and lipids soils



The excellent cost effectiveness of Dequest® phosphonates with these properties has led to their widespread use in detergents or cleaners.

DEQUEST® phosphonates can be formulated to promote:

- Scale inhibition of insoluble salts (Anti-incrustation)
- Stabilization of bleaching agents, in particular peracids and activators
- Dispersion
- Specific stain removal

Services and support

Product performance characterization

Our global center of expertise for detergent market can support our customer offering the following services:

Full scale automatic laundry and dishwashing performance test: assessment of performance in full scale appliances for determination of stain removal, whiteness maintenance, fabric encrustation, spotting and filming prevention on different materials and rinse aid tests.

Bench performance tests: state-of-the art laboratory that can perform a wide range of tests.

- Tergotometer with 8 positions for detergent screening at the same time
- Sheen washability tester with 4 positions for hard surface cleaning test with scrubbing
- Automatic titrators for stability and compatibility assessment of percarbonate, peroxide and hypochlorite bleaching systems
- Encrustation prevention or descaling efficacy test
- Metal alloy coupons for corrosion prevention tests
- Bench reflectance spectrophotometer (with UV cut-off filters) and light box with different light sources for evaluation of stains or scale deposits on objects

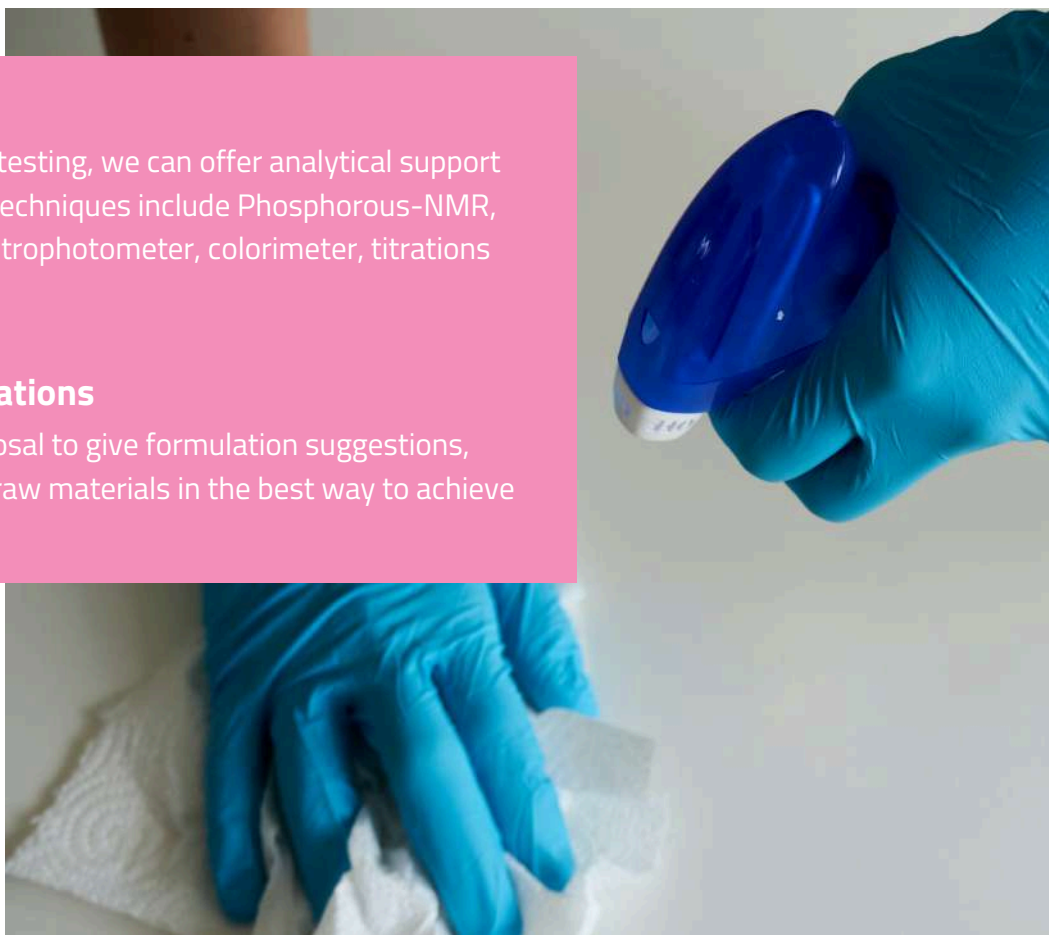
All the above services can be offered using synthetic water with any level of hardness or dissolved solids composition, we can reproduce the typical water of any region of the world aiming to simulate final user application at its best.

Analytical support

Together with performance testing, we can offer analytical support when needed. Our analysis techniques include Phosphorous-NMR, ICP-OES, FT-IR, UV-Vis spectrophotometer, colorimeter, titrations and chromatography.

Technical Recommendations

Our experts are at your disposal to give formulation suggestions, helping you in including our raw materials in the best way to achieve top performing products.



Products

Home Care Application

FUNCTION	PRODUCT	DESCRIPTION	RECOMMENDED USES
Dispersants and scale inhibitors from vegetable source	Dequest® PB11625D	Carboxymethyl Inulin - Liquid	Very effective dispersant and Ca-Carbonate crystal growth inhibitor. Provides also surface care benefit on glass, stainless steel. Ecocert approved.
	SPE 1436	Carboxymethyl Inulin - Powder	Very effective dispersant and Ca-Carbonate crystal growth inhibitor in liquidi form. Provides also surface care benefit on glass, stainless steel. Ecocert approved.
Green, P-free chelant	SPE 1504	Proprietary Polymeric material	Readily biodegradable, P-free chelant to replace traditional co-builders in cleaning applications. NOTE: this is an experimental grade product.
Multi-functional inhibitors	Dequest® FS1513	Organophosphonates reaction mix	Multi functional, scale inhibitor and bleaching system stbilization "in wash" for powder detergents.
	Dequest® FS1528	Phosphono polycarboxylic acid - Liquid	Multi functional, organic cathodic orrosion inhibitor and scale inhibitor. Compatible with Chlorine bleach.
	Dequest® FS1530	Phosphono polycarboxylic acid - Powder	Multi functional, organic cathodic orrosion inhibitor and scale inhibitor. Compatible with Chlorine bleach.
Bleaching systems stabilization (liquids)	Dequest® 2010LC	Hydroxyethylidene Diphosphonic acid (HEDP) Low Chloride	Effective heavy metal chelator stable in presence of Hydrogen Peroxide and Peracetic Acid.
	Dequest® 6004	Proprietary phosphonate	Effective heavy metal chelator stable in presence of Hypochlorite.
Dispersants and scale inhibitors	Dequest® FS1502	Proprietary polymeric composition	Very effective dispersant for whitness maintenance and water hardness management in laundry detergents and hard surface cleaners.
	Dequest® P9000	Homopolymer of maleic acid	P-free polymer for Ca-Carbonate crystal distortion, synergistic effect with Dequest® phosphonates for severe water hardness conditions. Excellent kaolin and clay dispersion.
	Dequest® P9000C		
	Dequest® P9100	Phosphino-carboxylic acid Polymer	Chlorine bleach stable product for multifunctional scale and dispersion control. Compatible with Quaternary Ammonium Compounds. Stable and effective at severe alkaline conditions. Good for Ca-Carbonate scale inhibition.
	Dequest® P9101		
	Dequest® P9110		
	Dequest® P9110C		
	Dequest® P9200	Modified Polyacrylic Acid	P-free polymer for Ca-Carbonate crystal distortion, synergistic effect with Dequest® phosphonates for severe water hardness conditions. Excellent kaolin and clay dispersion.
	Dequest® P9210		
	Dequest® P9300	Sulphonated Polyacrylic Acid Copolymer	P-free, hydrolytically stable. Good synergistic effect with phosphonates for scale and corrosion prevention. Good prevention of Ca-Carbonate and Ca-Phosphate formation and precipitation for spotting and filming control.
	Dequest® P9310		
	Dequest® P9320		
	Dequest® P9400	Maleic Terpolymer	P-free polymer for Ca-Carbonate scale inhibitor for alkaline wash for spotting and filming control. Stable and effective at severe alkaline operating conditions.
	Dequest® P9500	Sulphonated Polyphosphino Carboxylic Acid Polymer	Excellent Ca-Carbonate inhibitor and dispersant for spotting and filming control. Excellent in phosphate based formulation to prevent Ca-Phosphate formation and precipitation.
	Dequest® P9610	Polyacrylic Acid	P-free polymer for Ca-Carbonate crystal distortion, synergistic effect with Dequest® phosphonates for severe water hardness conditions. Excellent kaolin and clay dispersion.
	Dequest® P9620		
	Dequest® P9630		

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More information

If you would like to obtain more detailed information or are interested in obtaining a sample for evaluation in your system, please contact your nearest Italmatch Chemicals S.p.A. representative or visit our website

aws.italmatch.com



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