



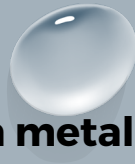
Wastewater Treatment Solutions for the Metal Processing & Finishing Industry

Product Guide

www.omexenvironmental.com



OMEX Environmental Ltd is based in the UK and operates both nationally and internationally. Working closely with industry to reduce environmental impact, treat waste and help optimise process performance.



Any operation which is involved in metal fabrication and finishing and produces wastewater on-site must consider what to do with the effluent as they will have obligations to treat prior to disposal or reuse. OMEX develop and market a range of nutrients and neutralisers for the treatment of all types of effluent and wastewater.



Wastewater Treatment

With its range of biological wastewater treatment solutions, OMEX are helping companies to comply with government legislation regarding wastewater discharge. These include N&P solutions (with or without trace elements), acid neutralisers, microbiological augmentation products, odour and septicity control and anti- bulking agents.




Biological Compounds

Biological compounds used to optimise biological activity in aerobic wastewater treatment plants as well as high performance bacteria that will break down fat and grease permanently.



Biogas Additives

These include trace element additives to optimise biogas production, iron solutions to minimise hydrogen sulphide levels, enzyme solutions to improve fibre breakdown and magnesium hydroxide solutions to act as a buffer, all of which help to optimise plant performance and increase return on investment.

A decorative graphic consisting of a large, light gray rounded square frame. A dark blue circle is located in the top-left corner of the frame. A blue circle is located in the bottom-left corner of the frame, containing a white icon of a water droplet with ripples. The text "Magmex® Magnesium Hydroxide Suspensions" is centered within the frame.

Magmex®

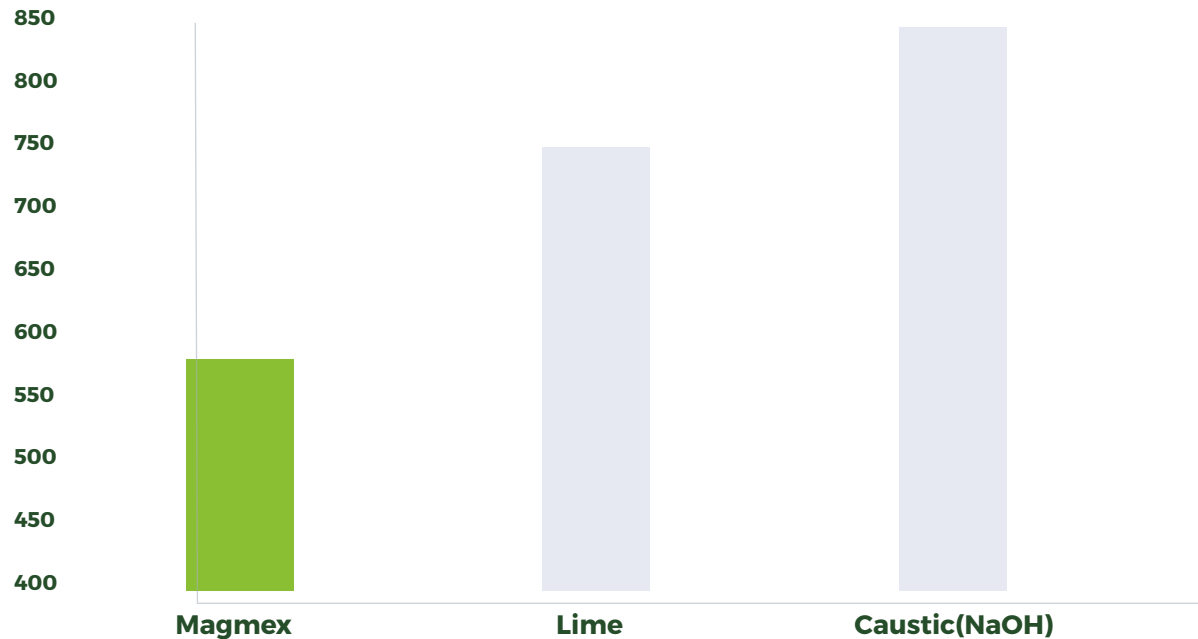
Magnesium Hydroxide Suspensions

A range of magnesium hydroxide suspensions for treating acidic wastewaters and controlling pH levels within both anaerobic and aerobic systems.

Traditionally, sodium hydroxide (caustic soda) and calcium hydroxide (lime) have been used to neutralise acidic solutions. However, these compounds are reactive and can cause high pH levels if not controlled correctly.

The Magmex® range is the environmentally friendly answer to the neutralisation of acidic wastewater. It is safe, ready-to-use and overcomes the majority of problems associated with the traditional acid neutralisers such as caustic soda or lime.

Alkali used (kg) to neutralise 1 tonne sulphuric acid (98%)



Magmex® 1060

A unique formulation specifically designed for use in situations where higher pH levels are needed to enhance precipitation



Magmex® 740

The standard formulation for use where a safe, efficient alkali is required for pH correction and where minimal sludge volumes are needed.



Magmex® 706

A stable formulation for use in smaller scale applications where longer term storage is required without the need for agitation.



Magmex® OP Series

OMEX's exclusive range of magnesium oxide and hydroxide powder products, which are available for a wide range of applications.



Nutromex® NP & PLUS




Nitrogen and Phosphorus Blends

In biological wastewater systems, microorganisms metabolise the soluble potential pollutants, producing carbon dioxide, water and more micro-organisms (sludge).





To do this with optimum efficiency, the microorganisms need a balanced diet that contains the correct ratios of mineral nutrients. Nutritionally, most wastewaters have been found to lack Nitrogen (N) and Phosphorus (P).

OMEX Environmental Ltd has developed the Nutromex® NP and the Nutromex® PLUS range of solutions designed to optimise biological activity in both Aerobic and Anaerobic wastewater treatment plants.

Back-Up Service

-  Macro and Micro nutrient profiling to establish the optimum NUTROMEX®NP solution for your individual needs
-  Microbiological analysis and reporting
-  Advice on process optimisation

Benefits

-  Optimal COD and BOD removal
-  Minimised solids loss
-  Stable operation
-  Minimised fluctuations in N&P Outlet

The Nutromex® Range

NUTROMEX® 100 Series

A range of Nitrogen and Phosphorus blend solutions. Individual product blends with ratios from 100%N to 100%P can be provided to optimise plant performance.

NUTROMEX® PLUS 200 Series

A range of N and P nutrients combined with fully bioavailable trace element micronutrients to provide a complete balanced nutritional feed.

NUTROMEX® SALTS 400 Series

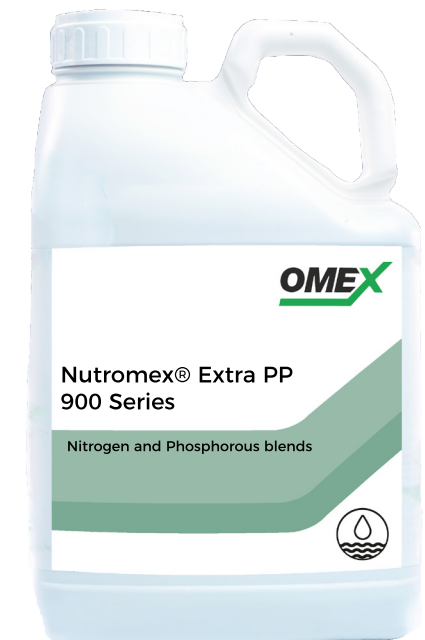
This series provides calcium, magnesium, sodium and potassium cations where they are lacking in an industrial treatment system.

NUTROMEX® SALTS 600 Series

As above but with bioavailable trace element micronutrients. Used specifically for condensates being treated anaerobically.

NUTROMEX® EXTRA PP 940

A blend of soluble carbohydrates, N, P, trace micronutrients and essential cations. This super food product is used to augment COD in start ups, over shutdowns and during recovery from toxic shock.



Micromex®

Biological Compounds



The main purpose of a biological wastewater treatment plant is to break down waste organics. Micro-organisms metabolise the soluble pollution, producing carbon dioxide, water and more micro-organisms (sludge).

The performance of a biological system is highly dependent on the microbial strains present and, in many cases, the biological population in an effluent treatment plant is not ideally adapted to cope with variations in loading and composition and therefore unable to provide optimum performance.

OMEX offers the Micromex® EU range, a range of bio augmentation solutions designed to optimise the biological activity in aerobic wastewater treatment plants, individually tailored for all types of effluent.

Micromex® will result in optimal COD and BOD removal, sludge flocs with superior settling characteristics and the ability to target specific pollutants amongst other things.



Anomex®

Sodium and Calcium Nitrate Solutions

Odour problems are of growing concern to wastewater treatment and municipal sewage treatment plant operators. Hydrogen sulphide is usually the major gaseous component with the typical 'bad egg' smell, detectable at very low levels.

Smell and septicity occurs when bacteria in the wastewater utilise all the available oxygen and start to reduce any sulphates present into sulphides. Lack of air supply, stagnant areas and warm temperatures all promote this undesirable biological activity.

ANOMEX® has been developed to prevent this odour and sulphide gas build up, by substituting nitrogen into the microbial respiratory processes.





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