



Omyasmart® Zero

Multifunctional Neutralizing Agent



THINKING OF TOMORROW



Omyasmart Zero

Mineral solutions for water-based products

Omyasmart is the brand name embodying new technologies developed for water-based applications to reduce the impact on human health and nature.

Omyasmart Zero (OSZ) is odorless and emission-free so that inhalation of toxic gases during application can be excluded. This contributes to healthy living. Due to the longer shelf life of e.g. paint with OSZ, the economy at the customer's site can be improved and the disposal of contaminated material minimized, thus OSZ also contributes to the sustainability of the environment.

It is in line with the Sustainable Development Goals (SDGs) adopted by all UN member States in 2015, which are laying down the most important principals how to safe our planet and how to develop our society. The Omyasmart Zero technology supports the reduction of additives comprising neutralizing agents and biocides in products such as Paints, Coatings and Adhesives & Sealants.

Omyasmart Zero thus contributes to the formulation of environmentally friendly products.

Benefits

- *pH stabilization*
- *Supports long shelf life*
- *No discoloration*
- *Zero emissions to the indoor air*
- *Odorless*
- *The product complies to the criteria for awarding the EU Eco-label under the Regulation (EC) No 66/2019*

Sustainable Development Goals - because we care



Omyasmart Zero is a mixture of mineral salts. pH and salt content are physical parameters known to support long shelf lives. Other examples in paints are high pH provided by water glass as a binder or in meat by salting (pickling).

Buffer capacity of various neutralizing agents in comparison

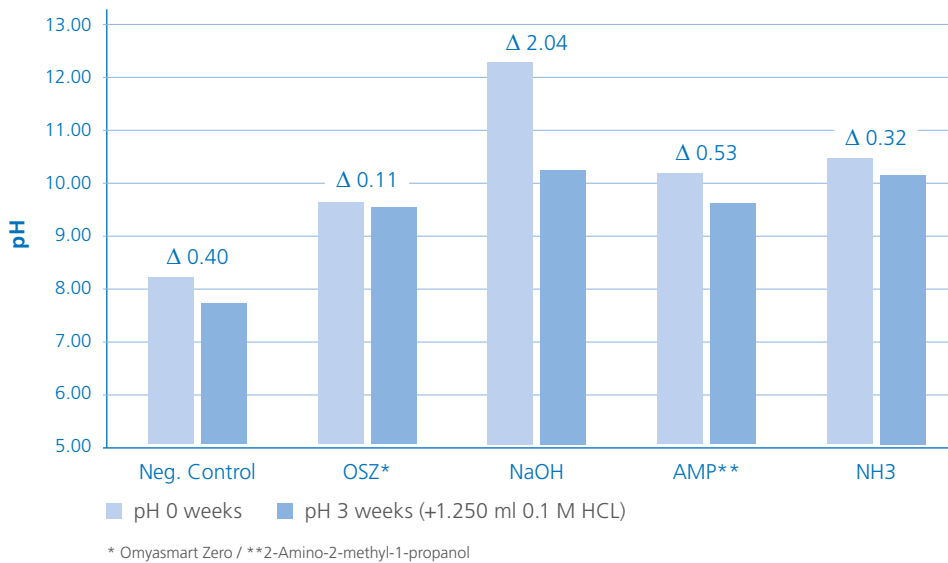


Figure 1: Due to its special properties, Omyasmart Zero establishes high salt and keeps the pH stable so that no acidic environment can be built. Compared to conventional neutralizing agents, Omyasmart Zero has the best buffering effect.

Omyasmart Zero favorably combines both effects deriving from pH and salt content for the stabilization. However, the pH increase is limited to avoid potential health risks for skin and eyes. The concentration of free salt ions is well controlled to avoid interference with crucial paint properties, e.g. viscosity and wet scrub resistance. The components of Omyasmart Zero have a REACH registration for water-based systems, e.g. interior paints.

Omyasmart Zero supports long shelf life

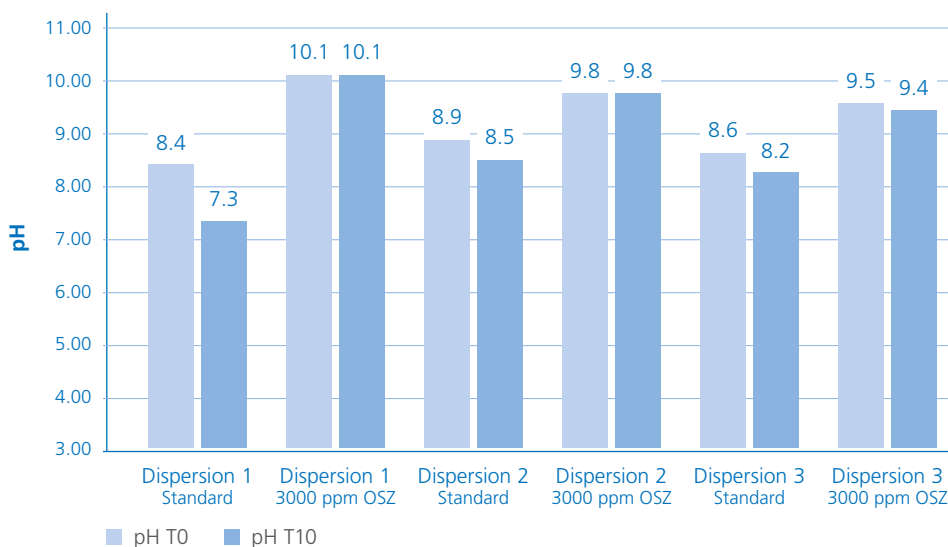


Figure 2: The pH stability in different paint dispersions with Omyasmart Zero in contrast to the standard is shown over 10 weeks. To simulate aging and stress conditions for the stability each week inoculations with acid producing microbes were applied. Independent of the paint dispersion, the paints comprising Omyasmart Zero show more stability in comparison to paint dispersions containing other neutralizing agents.



Omya identified the right mixture of salts to stabilize water-based products, e.g. paints.

Omya Customer Service

- *Application support*
- *Identification and isolation of microorganisms specific to products and production*
- *Shelf life study*
- *ISO 9001 certified technical service labs*
- *Regulatory support*
- *Support in the formulation of sustainable products*
- *Compatibility Tests (such as pH, viscosity, discoloration)*

Omyasmart is a registered trademark of Omya AG in the European Union and multiple other countries.



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OMYA PIGMENTS**

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