



alzchem  
group

# Sustainability and corporate social responsibility

TRADITION MEETS SUSTAINABILITY



Excellent dealing with people  
and the environment



Successful reduction of the annual  
CO<sub>2</sub> emissions by ~ 50,000 tons\*



Spending of ~ 24 M€\* annually in  
the protection of the environment



Successful audits of the Trostberg  
site by the industry initiative  
"Together for Sustainability"



Commitment to compliance with  
responsible care guidelines



\* data basis 2022

**NITRALZ®**

Aromatic and aliphatic nitriles  
for APIs, high performance  
pigments and agro solutions



OUR PATH TO CLIMATE NEUTRALITY – The Climate Roadmap of Alzchem Group AG

# NITRALZ®

## Aromatic and aliphatic nitriles for APIs, high performance pigments and agro solutions

NITRALZ® stands for the high quality of our aromatic and aliphatic nitriles MADE IN GERMANY based on more than 50 years of experience. Nitriles are an integral part in a variety of different applications as important intermediates or special solvents.

In the pharmaceutical industry our high quality NITRALZ® products play an important role as intermediates for the synthesis of various active pharmaceutical ingredients (APIs). This field of application is also sustainable according to the UN Sustainable Development Goals (SDGs) (SDG 3, Good Health and Well-Being).

Different ultrapure nitriles are very important for the synthesis of organic color pigments e.g. Diketopyrrolopyrrole pigments (DPP) and for Phthalocyanine pigments. These pigments are characterized through their excellent stability against sun light and heat and exhibit extreme weather resistance and tolerance against many solvents and chemicals. Pigments based on chlorinated benzonitriles represent a non-toxic alternative.

Our nitriles play also an important role in many innovative agro solutions for various plant protection products.

### PRODUCT QUALITY

- Use of very effective distillation columns → our ultrapure NITRALZ®-series are of the highest quality
- Verification of product properties are carried out in-house in accredited analytical laboratories

### ENERGY & EMISSIONS

- Continued reduction of our product CO<sub>2</sub> footprints through energetic use of CO gas for oil and gas compensation in combination using the formed CO<sub>2</sub> as raw material
- Since late 1980s: incineration plant for waste gas where the organic exhaust fumes are converted into water and CO<sub>2</sub> and in case of chlorinated nitriles into hydrochloric acid; these side products can be used on site in other processes as raw material

### PRODUCTION NETWORK & TRANSPORT

- Operating 3 state-of-the-art production lines using gas phase technology which stands for high yields, low emissions and reduced waste
- One-step synthesis routes via ammoxidation/ammonolysis → more efficient and therefore much more environmentally friendly compared to the alternatively practiced multi-step chlorination route
- Highly stable optimized conti-process, almost energy self-sufficient, with utilization of the exothermic reaction and furthermore without any solvent. In combination with our special in-house developed catalysts, the exhaust gas volume was reduced by more than 50% and the carbon footprint has been significantly reduced

### RAW MATERIAL & WASTE MANAGEMENT

- Raw materials production in-house (DCD) resp. if sourced from external: almost exclusively from our European suppliers
- Exploration of raw materials originating from renewables as an alternative to petrochemical origin → lowering the carbon footprint and independency from petrochemicals
- Regular quality and safety audits at our suppliers
- Wherever possible we handle bulk quantities (raw material, finished goods)
- Only approved and audited packaging is used
- Our packaging waste management comply with the requirements of the EU packaging and waste directive regulating the reuse or recoverable nature of packaging due to their composition

We ACT.



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