



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

## Dicyandiamide

Our DCD facility is one of the most  
progressive and environmentally  
friendly plants worldwide and one  
of the biggest globally



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



# Dicyandiamide

## An essential building block for APIs

Our production facility for Dicyandiamide (DCD) at Schalchen Site (Bavaria, Germany) – the only remaining plant out of China – is continuously in operation since 1950, in other words: Alzchem Group has more than 70 years of expertise and know-how in the synthesis of DCD. By continuously improving the production process, our DCD facility is one of the most progressive and environmentally friendly plants worldwide and is with an annual production capacity of >20.000 tons one of the biggest globally. In 2016 the total production volume of 1,000,000 to of DCD was exceeded.

The biggest individual application of DCD is as synthetic building block for Active Pharmaceutical Ingredients (APIs) e.g. for Metformin, a drug against diabetes type II. This application is sustainable according to the UN Sustainable Development Goals (SDGs) (SDG 3, Good Health and Well-Being).

### PRODUCT QUALITY

- Targeted control of production process, especially quality of precursor calcium carbide → production of different DCD qualities, with purities up to 99,9% for the pharma sector
- 100% backward integrated
- Verification of product properties are carried out in-house in accredited analytical laboratories

### ENERGY & EMISSIONS

- Increasing use of renewable energy sources
- 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

### PRODUCTION NETWORK & TRANSPORT

- Geographical proximity of our 4 different production sites → short transportation routes for the further processing, mainly by rail
- Use of AI (artificial intelligence) to optimize production processes along our NCN-chain → significantly increasing yields
- Intelligent network integration including energy and material flows, side products e. g. CO<sub>2</sub> used as raw material; cycles can be closed; goal: zero waste
- Closing of material cycles → conversion of flue gas scrubber from sulfuric acid to nitric acid, the resulting ammonium nitrate solution can be used in other applications opposite to ammonium sulfate solution

### RAW MATERIAL & WASTE MANAGEMENT

- 100% raw materials production in-house
- 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
- 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.



**Alzchem Trostberg GmbH**  
Dr.-Albert-Frank-Straße 32  
83308 Trostberg, Germany  
T +49 8621 86-3402  
finechemicals@alzchem.com  
[www.alzchem.com/en/sustainability/](http://www.alzchem.com/en/sustainability/)

