

# Dicyandiamide

MORE THAN 70 YEARS OF SUSTAINABLE  
COMPETENCE AND RESPONSIBILITY

QUALITY  
MADE IN  
GERMANY



alzchem  
group

# Dicyandiamide Applications



## PHARMA

### Starting Material for Metformin

TROPHARM is high purity dicyandiamide which is used in large quantities in the pharmaceutical industry as a starting material for the production of Metformin.

Metformin is used for the treatment of type 2 diabetes.



## AGRICULTURE

### Long-lasting Nitrogen Fertiliser

DCD is also used in large quantities for agriculture purposes in order to stabilise urea.

It increases the useful period of the fertiliser and prevents the environment damaging washing-out of the nitrates in fertilised fields.



## PRINTED CIRCUIT BOARDS

### DYHARD® 03

DYHARD® 03 is used as hardener for epoxy resin application. Printed Circuit Boards (PCB) are typically made from glass fibre which are impregnated with epoxy resins, hardeners and accelerators.

Several layers are then laminated together at high pressure and cured with the help of Dicyandiamide.

## Product Overview

### TROPHARM

High purity Dicyandiamide (at least 99.7%) with low impurities (eg. Melamine) for pharmaceutical application

### DYHARD®03

High purity Dicyandiamide with low turbidity levels for Printed Circuit Board industry

### DCD

Standard Dicyandiamide grade for general industrial applications

### TROMID

Basic grade Dicyandiamide with special specs for basic industrial use, like paper industry



## TEXTILE INDUSTRY

### DCD-Formaldehyde-Polycondensates

DCD-Formaldehyde-Polycondensates are used to improve the wet strength of colourations and prints (Dyefixing), and to enhance crease resistance.

DCD is also an excellent formaldehyde acceptor in the high-grade finishing of textiles (refining). They are also used for flame resistant finishing of textiles in combination for instance with phosphates.



## PAPER INDUSTRY

### Flame Retardants and Insulation

Filter media for clean-air for engines – Engines require filter media with high dust particle storage capacities.

Special synthetic fibers would be one way to fulfill these requirements.



## INDUSTRIAL WASTEWATER TREATMENT

### Floculating Agents

Dicyandiamide and formaldehyde based cationic resins can be used for industrial wastewater treatment.

The main area of use is in the flocculation of wastewater plants, paper mills and the dyestuff industry.

# Benefits

### • RELIABILITY AND HIGH QUALITY

Alzchem Dicyandiamide is 100% backward integrated and fully "Made in Germany". It is the only remaining dicyandiamide plant outside of China

### • OUR PRODUCT PORTFOLIO

Alzchem offers a specific product for several application as well as customized packaging (big bag, paper bag).

### • ENVIRONMENT, HEALTH AND SAFETY

Alzchem has one of the most efficient, technically advanced and environmentally friendly DCD processes

### • OUR KNOW-HOW AND EXPERIENCE

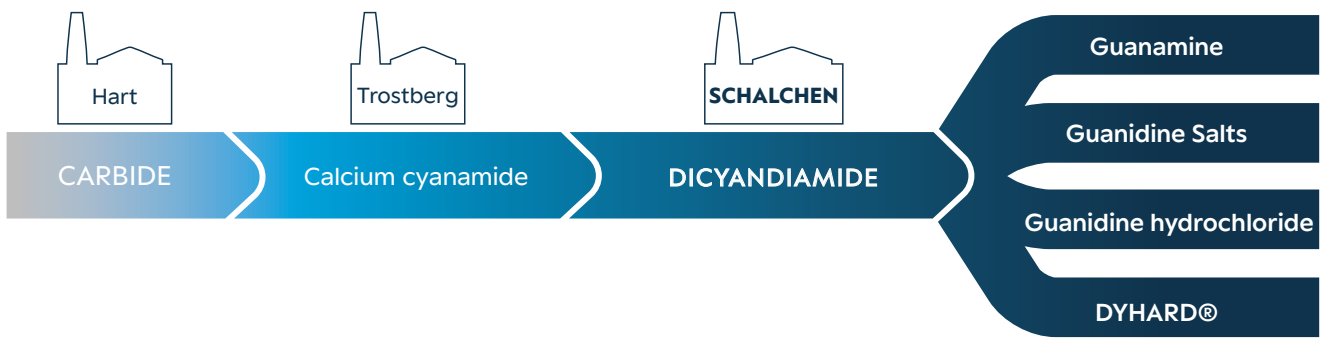
Alzchem has been producing Dicyandiamide since 1950. Our knowledge is based on more than 70 years of experience and expertise in the manufacturing of Dicyandiamide

### • OUR CUSTOMER ORIENTATION

Our focus is on long term customer relationships. Partners receive a high standard of service including technical and customer specific support.



# Backward integrated in the production of Dicyandiamide



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