



**SUPER DRY**  
SUPERIOR DESICCANT

# DESICCANT SOLUTIONS FOR TRANSPORT AND STORAGE



**The Expert in Moisture Damage Prevention**

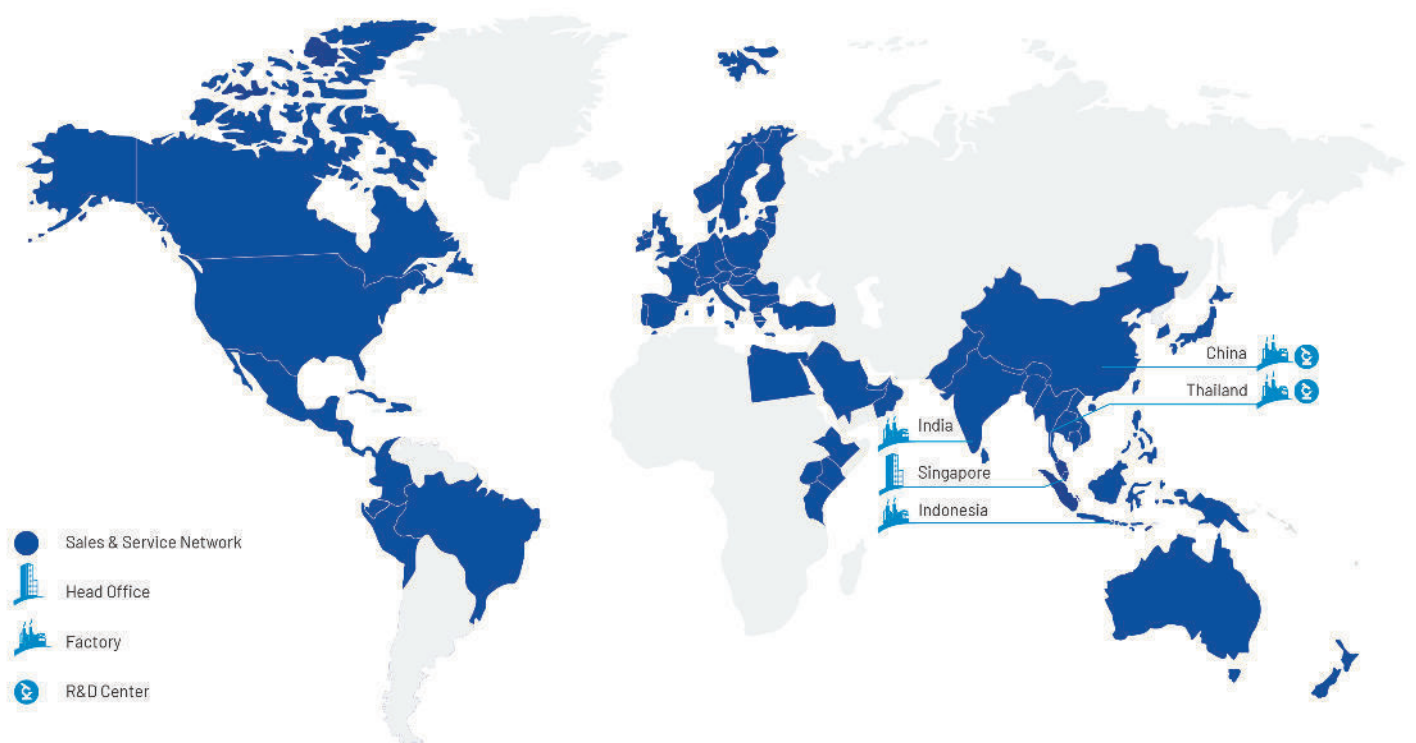


# THE SUPER DRY STORY

What started with 3 entrepreneurs more than 20 years ago has grown into a global company with a sales, service, and distribution network spanning 30 countries on 6 continents.

SUPER DRY distributes its desiccants and services through group owned companies and in cooperation with authorized distributors exclusively representing the brand in their geographical markets.

We support businesses protecting their goods from moisture damage during transport and storage. Maintaining value, preventing waste.





## CARING FOR YOUR GOODS

SD® SUPER DRY branded desiccants are made exclusively in our factories in China, Thailand, Indonesia, and India.

Having full authority of the production gives us control on every process step from raw material purchase to shipment provision. Providing our customers with the security that every desiccant is made according to the SUPER DRY quality standards.

At SUPER DRY, we operate 2 R&D facilities at our manufacturing locations in China and Thailand. Continuously introducing product, material, and process innovations, we drive the progress of our industry, aiming to provide the best desiccants for your cargo protection while minimizing the application through optimized product engineering

Compliance is an ever more important matter every company involved in the manufacturing, distribution and use of chemicals must strictly adhere to.

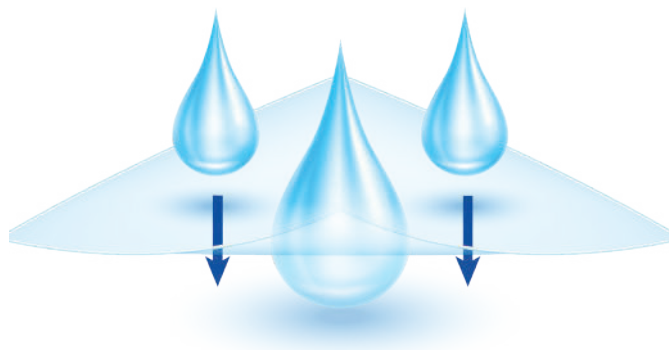
We work with specialized consultancies to stay ahead of upcoming regulations. Through regular testing of our products by renowned testing institute we ensure, that SUPER DRY products fulfil the regulations put in place by authorities.



# Advanced Packaging Materials & Sealing Technique

The quality of packaging materials is equally important for the effectiveness and safety of our desiccants. We take special care in the development of best-in-class packaging material and cooperate with research institutes and material suppliers to ensure that all materials match our technical standards for sealing strength, vapor transmission rate and water barrier function.

SUPER DRY dual layer, mono-permeable membrane technology safely locks the moisture.



**One-Way Venting  
Packing Material**



**Dual Layer Design**



# SUPER DRY Container & Packaging Desiccants

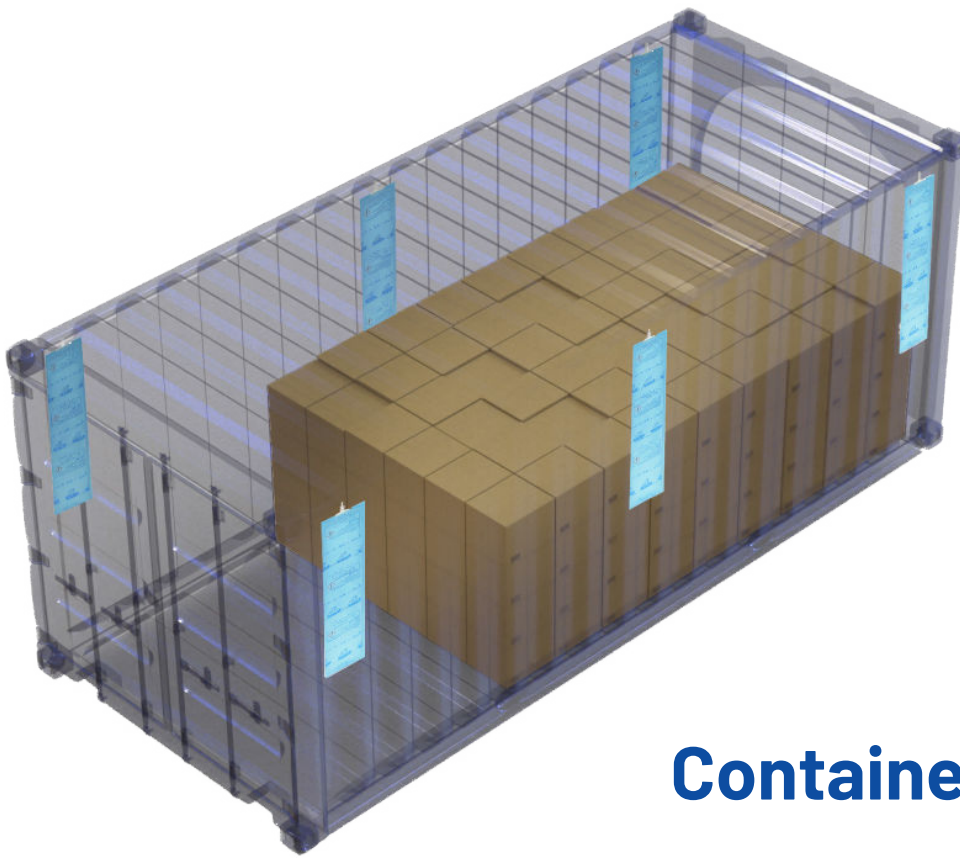
SUPER DRY desiccants directly target the cause of moisture related cargo damage. Our desiccants effectively remove moisture from the ambient air thus keeping the humidity level inside your container and product packaging below the dew point.

SUPER DRY desiccants have a proven absorption capacity of more than 300% and remain active for up to 90 days. The absorbed moisture is turned into a gel, leakage free. No spillage and re-evaporation.

We offer a wide range of desiccant sizes and designs to fit your loading pattern during transport and storage.

**SUPER DRY – Superior Desiccants For the Safety of Your Goods.**





## Container Desiccant

Whether you ship containerized bulk loads, agricultural products, merchandise goods, industrial products or hanging garments. SUPER DRY offers a wide range of container desiccants for each application.

SUPER DRY container desiccant have a cellular bag structure. Improving absorption efficiency and safety against mechanical damage.

**Our container desiccants are available in sizes from 200 grams to 2,000 grams bags with hooks, strings or as self-adhesive bags.**



**Flat Lying**



**Hanging  
with Hook**



**Hanging  
with String**



**Self-Adhesive**





## Small Package Desiccant

SUPER DRY small size desiccants are designed for application in cartons, boxes or poly bags.

Placed together with your goods the desiccant targets moisture inside the product packaging to ensure that your goods arrive in perfect condition.

We offer a complete range to match your requirements.

**Our small size desiccant line is available in sizes from 2 grams to 100 grams.**







## Sticky Pack

SUPER DRY STICKY PACK combines the excellent moisture absorption capacity of our standard desiccant bags with a highly effective adhesive surface for easy application. The Sticky Pack sticks firmly to any dry and clean surface. Just pull and stick.

**The STICKY PACK desiccant line is available in sizes from 2 grams to 250 grams.**



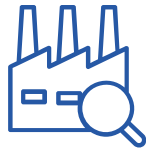


## SD+

A comprehensive 360° service designed to eliminate moisture damage risk at every step of your supply chain.

The application of container or in-box desiccant is one step in a holistic review of moisture damage risks. With SD+, SUPER DRY offers customized services to determine moisture damage risks at source, provide optimized moisture damage prevention solutions and share our knowledge and experience.





### Factory Inspection

We support your factories in detection moisture damage risks within your existing supply chain and provide you with a step-by-step improvement plan to minimize the risks at source.



### Container Inspection

A training lesson for your logistic staff at factory to raise awareness towards the critical control points of a sea container to be looked at before acceptance of the container from the ocean carrier.

We provide training on the installation of SUPER DRY container desiccants to ensure the highest efficiency of our products during transport and storage of your good.



### Climate Chamber Tests

The SUPER DRY R&D center is equipped with climate chambers where we simulate the effects of temperature and moisture during transport and storage.



### Field Tests

Field Tests compare the moisture damage risks between cargo protected by desiccants and unprotected cargo or to compare the absorption capacities of different desiccants in a real ocean transport environment.



### Training & Seminars

We offer customized supplier seminars and staff training. Our holistic approach, raises risk awareness at every staff level, pin-points on-site risks and highlights moisture damage prevention solutions.









# Moisture Damage is a Risk Factor in Every Supply Chain

Excessive moisture is a destructive force during transportation and storage which can lead to

- Mold & Mildew
- Corrosion
- Warping, Deterioration & Malfunction
- Staining & Discoloration
- Caking
- Odor

Mold plays an important part in nature by breaking down organic materials. Mold spores are commonly found in the ambient air, house and factory dust. Mold requires 2 basic conditions for optimal growth: moisture and nutrition.

Corrosion can lead to structural damage of a product but only slight amounts of corrosion will affect its commercial value. Water is the most common catalyst for corrosion.

Warping, Deterioration & Malfunction describe the mechanical or electrical failure of materials, products or packaging. Excessive moisture leads to loss of strength or deformation and induced stain causes malfunction of components.

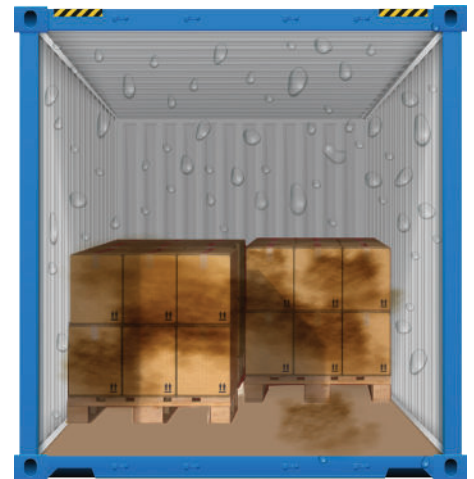
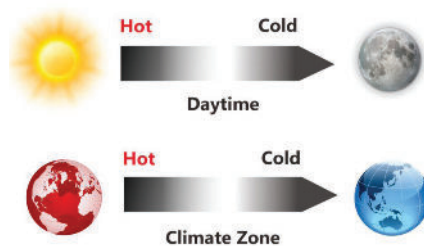
# Moisture Control is the Most Effective Measure to Prevent Damage.

Containers provide an ideal micro-climate to increase moisture damage risks. The temperature inside the container will fluctuate widely increasing the risk of water condensation. This follows the basic principle that cold air can hold less moisture than hot air.



## Moisture Originates from:

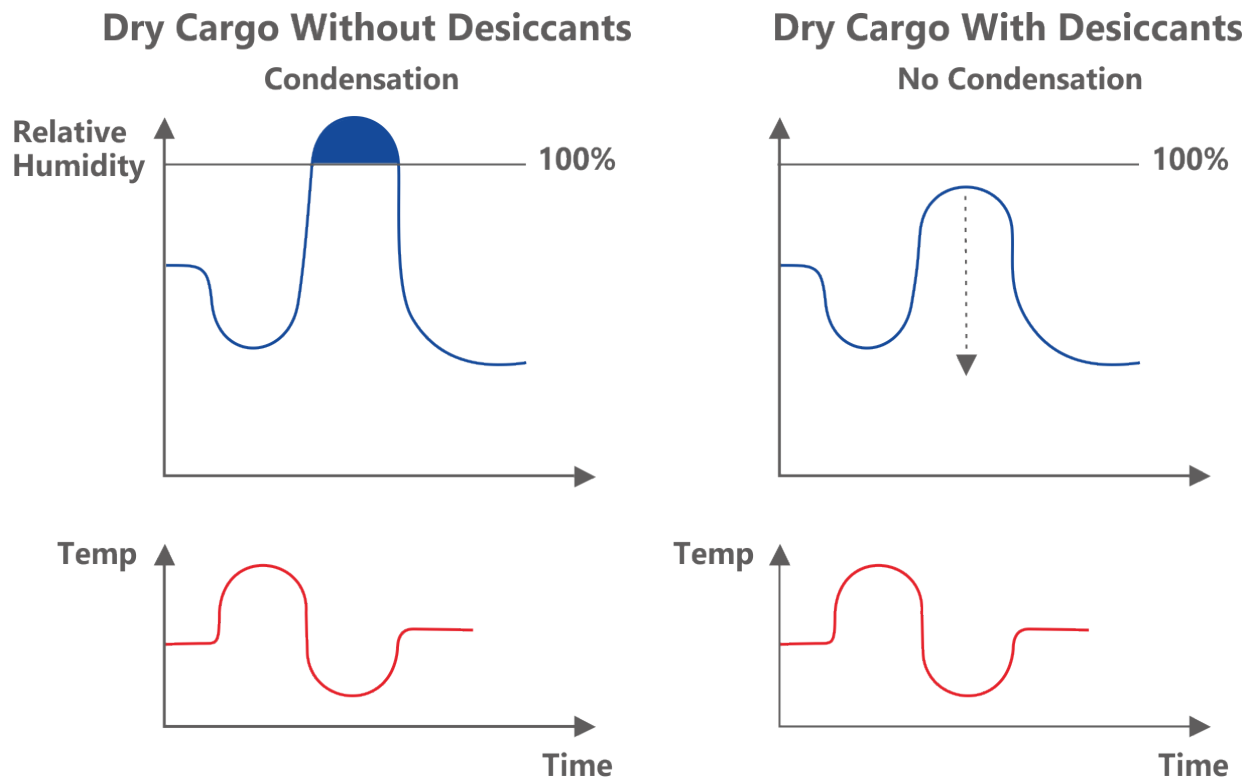
Cargo, Packaging, Container floor,  
Damp air from Outside



**Moisture Lead to:** High RH Level, Cargo Wet, Container Rain

**Which Cause:** Mold Growth, Oxidation, Deformation, Malfunction





When the container is exposed to temperatures below the dew point, the moisture from the ambient air will condensate, most visible at the ceiling and walls of the container. This water can drip on to the cargo. A process commonly known as container rain. Condensation can also appear inside the packaging of the merchandise. This is a repeating process during transport, which increases the risk of moisture damage, like mold growth, corrosion, deformation, malfunction and odor.

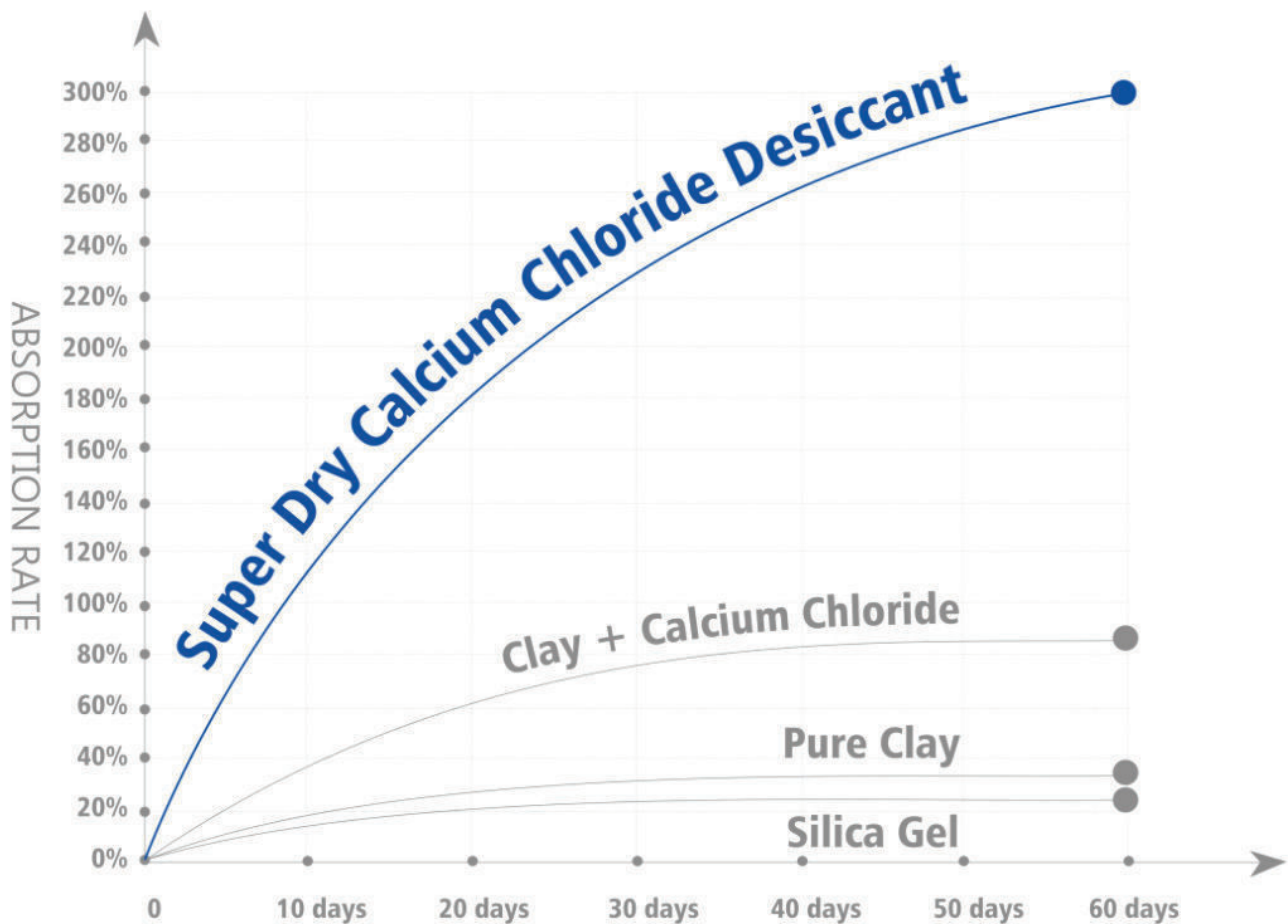
**SUPER DRY desiccants reduce the relative humidity inside the container and packaging well below the dew point at any time during transport and storage. Protecting your cargo from the damaging effects of water condensation.**

# Superior Solution for Moisture Damage Prevention

SUPER DRY desiccants have a verified absorption capacity of more than 300% of their dry weight and continuously absorb moisture for up to 90 days in temperature conditions ranging from  $-5^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ .

SUPER DRY desiccants absorb 10 times more moisture and actively absorb stays active within a wider temperature range than Silica Gel or Clay. SUPER DRY desiccants are the superior solution for moisture damage prevention inside containers, transport boxes and product packaging. Keeping your cargo perfectly safe from moisture damage risks.

Constant test conditions over 60 days: Temperature =  $28^{\circ}\text{C}$  and RH = 85%







## Super Dry Desiccant is 10 Times More Effective Than Silica Gel

**Example:** Inside a hermetically sealed box of 1 cubic meter at 35°C and 80% relative humidity, there are 31 grams of moistures in the air. To absorb those 31 grams of moisture, 100 grams of Silica Gel or Clay desiccant is required but only 10 grams of SUPER DRY desiccant will absorb this amount of moisture. This makes SUPER DRY desiccants extremely effective and cost efficient in comparison to Silica Gel or Clay desiccants.



## Moisture Damage Prevention

Humidity control measures at all levels of the supply chain are your best strategy to minimize the risk of moisture damage. Establishing processes and enforcing housekeeping rules is critical for success. Our team of auditing and training specialists will help you and your suppliers to fit moisture prevention measures into the quality management system.





## Material Receiving

- Keep unloading area dry and clean
- Unload only in dry conditions or under protective cover Check incoming goods for visible moisture
- Measure moisture content of critical materials
- Unload goods on dry and clean plastic pallets



## Material storage & Product storage

- Keep storage area dry and clean
- Store materials, finished products, semi-finished goods and waste materials separate
- Store goods with high natural moisture content separate
- Keep relative humidity level in storage areas below 60%
- Use dry and clean plastic pallets for material and product storage
- Keep space between building walls and stored materials
- Always follow the FiFo rule



## Production

- Keep production areas dry, clean and well ventilated Keep equipment and support materials dry and clean
- Separate wet processing areas
- Avoid unnecessary storage at production areas



## Packaging

- Keep packaging area dry, clean and well ventilated
- Use only dry and clean packaging material
- Pack only fully dried products



## Loading & Shipping

- Keep loading area dry and clean
- Load only in dry conditions or under protective cover
- Inspect containers or trucks regarding visible damage, dirt, moisture and odor
- Measure the moisture content of wooden floors for containers and trucks.
- The moisture content shall not exceed 20%



## SOCIAL RESPONSIBILITIES

Corporate social responsibility ('CSR') is an integral part of our business strategy.

We are committed to uphold the principles of social responsibility, namely accountability, transparency, ethical behaviour, respect for stakeholder interests, respect for the rule of law, respect for international norms of behaviour and respect for human rights. And we expect the same from our business partners in our supply chain.

Within our sphere of influence, we uphold non-discriminatory behaviour towards all stakeholders and do not engage in forced labour or child labour practices. We support fair competition practices and anti-corruption measures, respect civil and political rights and observe occupational, labour, health and safety legislations.





# 6 Core Advantages

1

## **Absorbs More Than 300% of Its Own Weight**

Super Dry's absorption rate is 10-15 times higher than that of common desiccants.

4

## **Board Application Temperature Range from -5 to + 90 °C**

Super Dry desiccants are effective in all transport & storage environments worldwide.

2

## **Active From 1st Day of Use Effective For Up to 90 Days**

SUPER DRY -safety for your goods from factory to customer.

5

## **Non Toxic and Dmf Free Reach Registered**

Tested by independent institutes. Compliant with international standards.

3

## **Moisture is Turned into Gel Leakage Free**

Moisture is locked without any risk of spillage and re-evaporation.

6

## **Global Sales & Customer Service Network**

We know our customers and markets. Serving you wherever your businesses are located.

## **Super Dry Europe B.V.**

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