# SINCHEM

Earth Pearls, Purifying Life

# **CATALOGUE 2017**

# ABOUT THE COMPANY

Shandong Sinchem Silica Gel Co, Inc., SINCHEM, was established in 1993 as a company specializing in the production of synthetic amorphous silica. SINCHEM extracts and produces more than 900 tons of silica gel and sodium silicate per day.

### NATURAL

Silicon is the second most important element in our planet after oxygen. Our installations are located close to the mines, allowing a significant reduction in transport costs. Extraction is facilitated by the fact that quartz is at ground level. We transform the stones into quartz sand with very high purity.

SINCHEM applies an environmentally friendly and highly-efficient energy to achieve sustainable development for a green chemical industry.

SINCHEM has all the certificates that allow the sale of our natural products in Europe, ISO 9001:2008, ISO 14001:2004, REACH registration, global Standard for Consumer Products, SGS-ROHS, membership of APPA, Green Enterprise Chinese Label and adherent to Business Social Compliance Initiative (BSCI).

#### MODERNITY

SINCHEM is present in China, in the Shandong province close to the mines and to Qingdao, Shanghai, Tianjin ports and in Europe in Strasbourg, France.

SINCHEM persistently upgrades its installations: in 2016 with a new warehouse of 6000 sq. meters and a new plant with an increase in capacity of 35% is planned for 2017.

Products are used in cat litter, paint, absorption separation purification, silicon rubber and tire filler, desiccant, indicators, pharmaceutical personal care (cosmetics, toothpaste, pharmaceutical silica) and catalysts. More than 25% of our products sold today did not exist three years ago.

### QUALITY

Forty-five engineers in Chemistry, Exploitation, Mine Industrial Process, Quality Control, Machinery, Electronics, Electricity and Environmental Protection quarantee evolving knowledge and talent. SINCHEM has established long-term agreements with external suppliers.









# SECTORS

### **Ol**INDUSTRY

Silica Gel can be used in decontamination, separation and purification of gas, it's application can be widely found in synthetic ammonia industry, pressure swing absorption (PSA) and many other fields.

PSA is an adavanced technology in gas separation and purification, PSA silica gel is mainly used in the recycle, separation and purification of carbon dioxide gas. It is applied to the preparation of carbon dioxide in synthetic industry, food and beverage processing industry.

It can also be used in dissecation, damp-proofing, dehydratation and refining of organic products.

### **O2**BIOCHEMISTRY

Chromatography silica gel is a high-class selective absorption material composed by structured-aggregation colloid particles. Colloid particle is the polycondensate of hydrated silica gel, it is a amorphous substance. The gap between colloid particle forms the micropore structure inside silica gel granules. Therefore, Chromatography silica gel is a superior absorbent material with micropore structure, high specific surface area, high purity and high activity.

Chromatography silica gel is widely used in the separation and purification of effective components in Chinese herbs, preparation of high purity materials, dehydration and refining of organic products and brewing industry.

### **O3**AGRICULTURE

Silica gel fertilizer can enhance disease resistance of rice, improve its setting percentage, stimulate the growth and increase the yield.

It can also be benefit to crops' photosynthesis and increase chlorophyll content, make the stem and leaf straight and upright, promote the accumulation of organic matter.

Silica gel fertilizer can strengthen the mechanical strength of crops' stems, enlarge the lodging-resistance capability by more than 85 percent to make stems straight and strong, so it is good for compact planting.

It can improve the crops' resistance to plant diseases and insect pests, to reduce various kinds of plant diseases and insect pests.

## **04**ELECTRONICS

Silica gel desiccant can protect semiconductor, circuit board and all kinds of photoelectric elements from moisture, static and corrosion during the storage.





# **05**HOUSING

Adsorption of formaldehγde, benzene series, ammonia, radon and some other harmful gas along with floating bacteria in the air.

Air humidity adjustment, odour control, mould proof, and sterilization in hotels and hostels, offices, living rooms, bathrooms, kitchens, ashtrays, cars, shoes and refrigerator





### **06**CAT LITTER

Silica Gel Cat LItter has strong and fast absorption capacity, it can completely absorb the cat urine or liquid in feces in seconds as well as the smell. It can inhibit bacteria from growing, the pets can live in a clean and safe environment.





# SILICA GEL CAT LITTERS

# CRITERIA FOR CAT LITTER

#### **CLEANABILITY**

The frequency and the ease of cleaning.

### **ABSORPTION**

The rapidity and the quantity of water absorption.

### ENVIRONMENTAL PROTECTION

The impact of the cat litter during its manufacturing, its transport; at home and the procedure of the after-treatment.

### CLUMPING

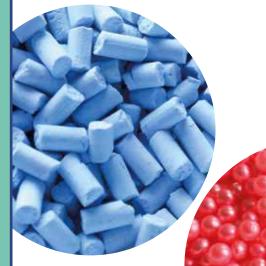
The degree of agglomerate and the need.

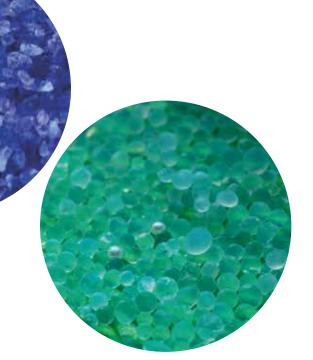
### DEODORIZATION

The degree of neutralization of the odors, it's rapidity and period.

### COMFORT

The softness for the cat and kitten.





### ANTIBACTERIAL

Silica Gel counts a great quantity of micro-pores which absorb water and all kinds of smell effectively.

After based on above special properties, processed and refined, Silica Gel Cat Litter is a new and ideal pet waste cleaning agents which have better properties of antiseptics than other cat litters.

### **TYPES**

**CLUMPY®** 

Clumping 0,5 to 2,0 mm

### LENSY®

Semi bead 0,5 to 4,0 mm

### **STONEY®**

Lumpy 1 to 8 mm (1-4 mm, 4-8 mm, 1-6 mm)

**SANDY®** 

Sugar 0,5 to 2,0 mm

### **PELLY®**

Columnar 0,5 to 3,0 mm

### COLORS

Transparent

All the colors are possible

### **ADDITIONAL**

Fragrances, Anti-odor, Pheromones, Health indicator

# SILICA GEL DESICCANTS

### **SISORB**®

### **TYPE A**

Type A is used to put in the package of instruments, electronic products, leather, shoes, clothes, food, medicine and appliances. To prevent items against dampening, mildewing and rusting. To refine organic compounds by dehydration.

To be used as the catalyst carrier

### **TYPE B**

Low absorption capacity in low humidity compared to Type A. High absorption capacity in high humidity compared to Type A. Better than Type A in tropical and oceanic climates.

It can adjust the moisture and it is much better to use to protect the calligraphy and painting, especially the ancient calligraphy, paintings and books.

### **SISPOWER**®

### PRESSURE SWING ABSORPTION



The PSA can absorb certain gases more easily than other gases, so the gas easily adsorbed can stay in the PSA silica gel and be separated from others gases.

Used as catalyst and catalyst carrier in petroleum chemical field, dryer machine, liquid absorber, gas separating in industrial field CO2 and H2, and in the fabrication of NH3 and Urea.



Because of its high bulk density and high performance to absorb moisture in low humidity, it can be used as air cleaner to control the air moisture.

### SIDICCIA®

### COLOR INDICATING SILICA

This product is mainly used for drying, indicating

the degree of drying or humidity, and widely used in precise instruments, pharmaceuticals, petrochemicals, food, clothing, leather, home appliances.

### SIS-MICRO®

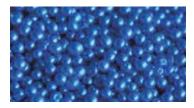
#### **MICRONIZED SILICA**

Micronized silica is synthetic, amorphous, porous and acidic-base silica powder whose size ranges from 2 microns up to 20 microns. It is used as a matting agent and anti-blocking agent for plastics.

Micronized silica products are manufactured to exacting consistency, purity and quality standards. **Pore Volume**: 0,4 to 2,5 cc/g **Surface Area**: 200 to 800 m<sup>2</sup>/g **Oil Absorption**: 90 to 400 cc/100g

### SIS-CX®

### CHROMATOGRAPHY SILICA GEL



#### COLUMN

It is the main chromatographic technique used to separate and refine the industrial material. It ismainly used to separate and refine traditional Chinese herbal medicine, synthetic chemicals and bio-active substances to get high-purity substances by absorption.

#### THIN LAYER

It is widely applied to identify and to separate the main ingredients of medicine, pesticides, Chinese herbal medicine, food, chemical products and to clean the impurities from them.

### SIBEER®

### STABILIZER FOR BEER

The silica gel can prolong beer storage period by 180-240 days and keep beer from being cold turbidity. It does not affect the beer foam or taste. It is proved by practice that it is the safest beer stabilizer generally recognized by beer industry all over the world.

### SIS-FNG®

### FNG WATER PROOF SILICA GEL

Bead type is widely used, such as use as catalyst carrier, to dry and absorb inflammable acetylene and carbon dioxide to prevent the machine from freezing and blocking in gas separeating field.

Granular type can be used to refine water, it can be recycled after washing and drying. It can be used in aquariums, it can also remove the fishy smell and nitrite in water.

### SILICA GEL DESICCANT USE

DEHUMIDIFYING AGENT

ABSORBENT

INDUSTRIAL PROCESS

#### **SIZES**

BEAD

0.5 to 1.5 mm 1 to 3 mm 2 to 4 mm 3 to 5mm

GRANULAR

0.2 to 1.0mm < 0.3 mm 0.5 to 1.5 mm 0.7 to 1.4mm 1 to 3 mm 1 to 6 mm

### COLORS

Transparent glass Blue and orange

# CLIENTS

BOB MARTIN

CARREFOUR

CATSAN

CERTECH

CLARIANT

CWK-BK

DESSICARE INC. FRESSNAPF HONEYWELL

LECLERC MERCADONA MIGROS

PESTELL

TOLSA

TRANQUILLE

ULTRA PET WOOLWORTHS

ZEN CHEMICALS





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