



# SINCHEM

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Earth Pearls,  
Purifying Life

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## PRESENTATION

# SINCHEM SILICA GEL CAT LITTER IS SAFER FOR HUMANS, PETS AND ENVIRONMENT

SINCHEM GROUP, ESTABLISHED IN 1993, IS A MANUFACTURER DEDICATED TO SODIUM SILICATE AND SILICA GEL PRODUCTS.

Silica gel is a highly absorbent material. The interior of silica is a nano-scale micro-porous structure that can effectively absorb humidity, water, gas and odors. Silica gel is widely used as a cat litter and dessicant for food, medicine, cosmetic industries and to protect household goods.

SINCHEM extracts and produces more than 900 tons of silica gel and sodium silicate per day.



## STRONG ABSORPTION

With strong absorption capacity, it can not only absorb pets urine quickly, but also absorb the bad smell of feces effectively. Thus, it can keep the pet's toilet dry, and destroy the production and breeding environment of microorganisms and bacteria, achieving antibacterial status and keeping pets healthy and the air fresh.



## NATURAL PRODUCT

Silica gel is taken from natural quartz sand, mineral components are non-toxic and harmless. It is the only product that has passed the FDA certification to be used in medicine by our USA customers.



## QUALITY CONTROL

**SINCHEM** owns all the processes of production from the mines to the finished products with total control over quality.



## NO HEAVY METALS

Silica gel does not contain heavy metals, like some other mineral litters.



## GREEN CONCEPT

**SINCHEM** has always adhered to the green concept of «taking from nature and returning to nature.» The used silica gel can be utilized as fertilizer.





## REDUCES WASTE AND SAVES ENERGY

**SINCHEM** has increased the production efficiency to reduce waste and save energy.

- Steam is produced by a low temperature recovery unit, which greatly reduces the amount of Carbon dioxide and we use natural gas not coal.
- **SINCHEM** has invested EUR 13 million in a water treatment center which achieved zero discharge of water by using spatial technology.

Concepts	2015	2020
Co <sup>2</sup> /Kg of silica gel	1.61 Kg * (90 gr/day)	1.05 Kg * (59 gr/day)
Water/Kg of Silica Gel	16 L	0 L

\* Normal use for a 4 Kg cat.



## SUSTAINABLE DEVELOPMENT

**SINCHEM** prides itself with environment protection, green and sustainable development, and transmits this concept to employees through action. **SINCHEM** builds roads, supports education and makes efforts for social progress and contributing to the sustainable development of mankind.





# SILICA GEL CAT LITTERS

## PACKAGING

### Plastic Bags

(from 1.5 kg-3.3 lb. to 10 kg -22.0 lb.)  
and with 9 colors.

### Boxes in Cartons

### Plastic Cans

### Woven Bags

(from 15kg-33 lb.)

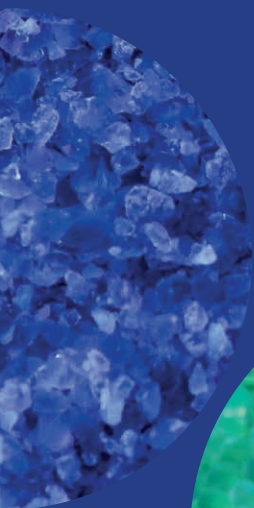
### Barrels

## BRANDS

### Your Private Label Brands

### Our Brands





## 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.

## 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

## COLORS

Transparent

All the colors are possible

## ADDITIONAL

Fragrances, Anti-odor,  
Pheromones, Health indicator

## TOFU CAT LITTER



# SECTORS

## 01 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 advanced 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 dissection, damp-proofing, dehydration and refining of organic products.

## 02 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 an 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.

## 03 AGRICULTURE

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

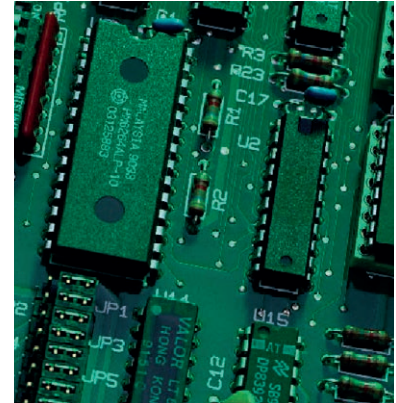
It can also benefit crops' photosynthesis and increase chlorophyll content, make the stem and leaf straight and upright, promote the accumulation of organic matter.

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.

## 04ELECTRONICS

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



## 05HOUSING

Adsorption of formaldehyde, 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



## 06CAT 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 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



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.

## 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.

## 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.

## 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 CO<sub>2</sub> and H<sub>2</sub>, and in the fabrication of NH<sub>3</sub> and Urea.



## 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.

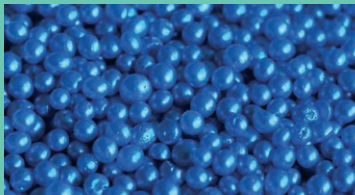
**Pore Volume** : 0,4 to 2,5 cc/g

**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 is mainly 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 separating 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



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