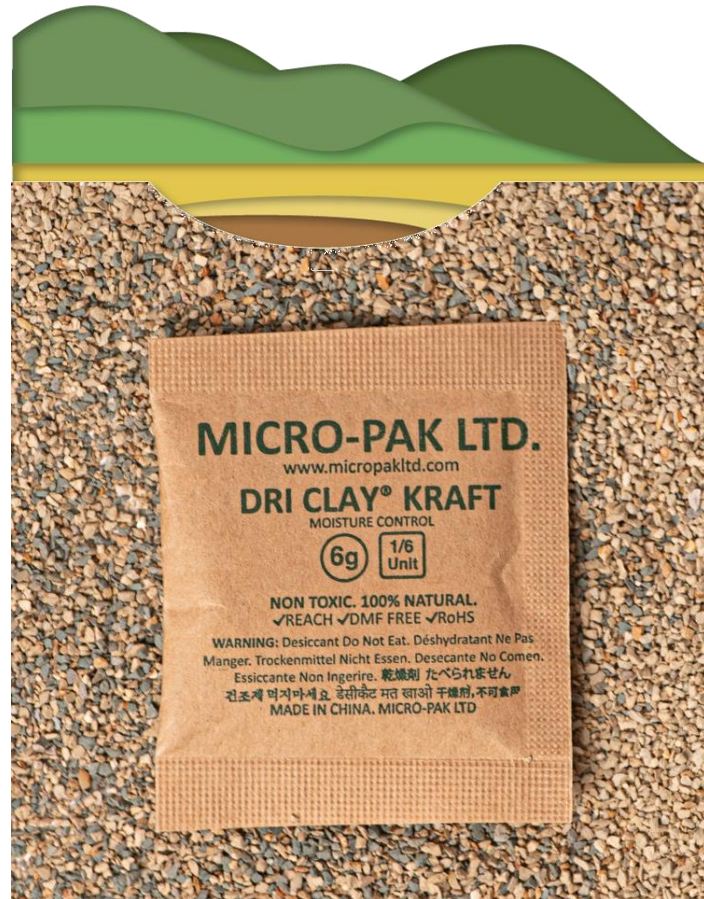


Micro-Pak Dri Clay® Kraft vs Silica Gel Environmental Impact Summary



Micro-Pak Dri Clay® Kraft
(Bentonite Clay)



Silica Gel

Micro-Pak Dri Clay® Kraft

A 100% natural and plastic-free desiccant made of high grade bentonite clay and packaged in biodegradable FSC (Forest Stewardship Council) certified Kraft paper. Video - <https://vimeo.com/user100063504/driclay>

- ✓ **Sustainable** – Natural clay in plastic-free, biodegradable packaging
- ✓ **Effective** - Outperforms calcium chloride inside packages
- ✓ **Safe** – Chemical-free. No leakage and non-corrosive
- ✓ **REACH Exempt**

Available in 6 sizes (grams):



Back of sachet

Environmental Impact - Dri Clay® Kraft vs Silica Gel

Compare the environmental impact of using 100 million 5-gram silica gel sachets to the same quantity of Micro-Pak Dri Clay® Kraft:



ZERO plastic to landfill (plastic-free)
Packaged in biodegradable Kraft paper

500

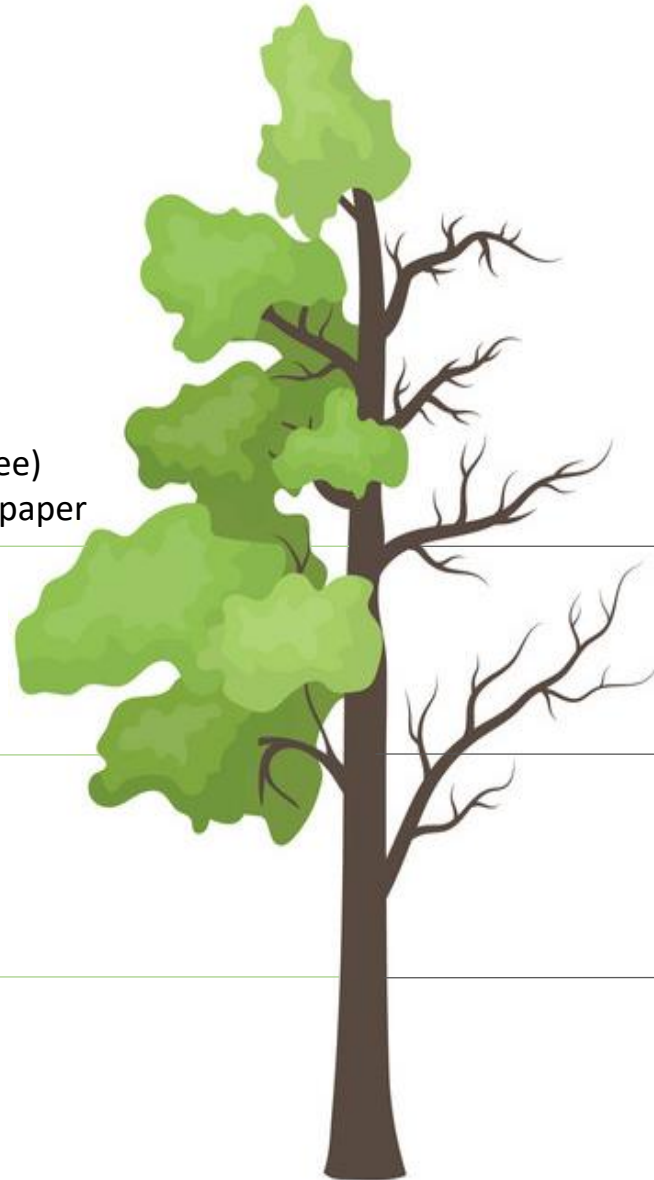
Metric tonnes
of natural clay to landfill



ZERO chemicals
Made of 100% bentonite clay

ZERO

No water used in production



47 Metric tonnes of plastic = **2,350,000**
1-liter plastic bottles

500 Metric tonnes of silica
gel beads to landfill



250 Metric Tonnes Sulphuric Acid
700 Metric Tonnes Sodium Silicate



10,000,000
Liters of fresh water
used in production

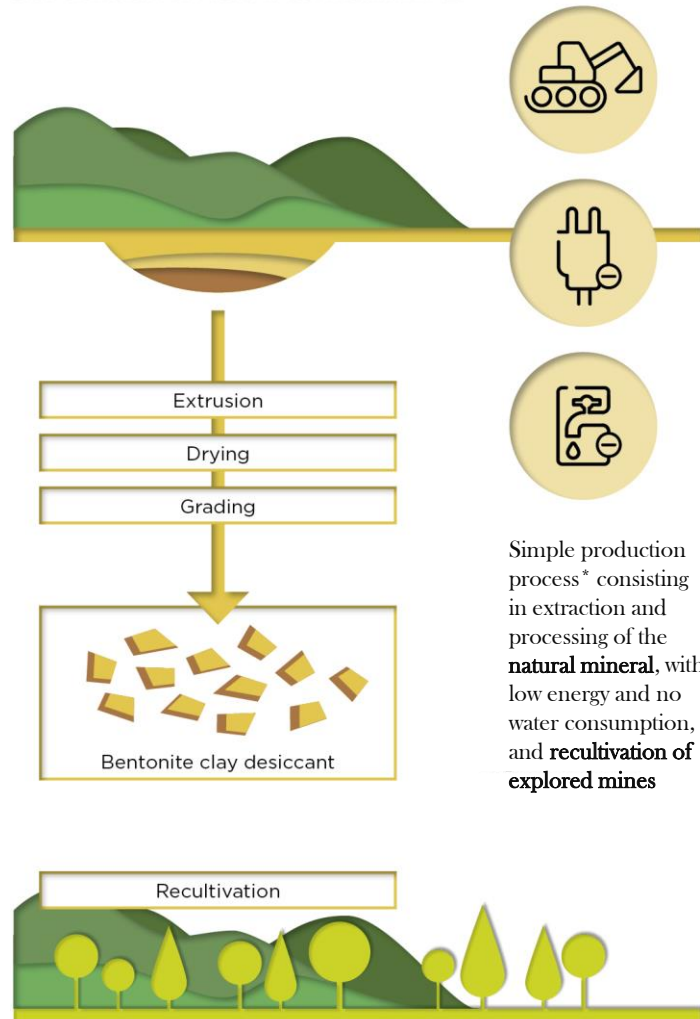


Production Process - Dri Clay® Kraft vs Silica Gel

BENTONITE CLAY DESICCANTS

Calcium-rich montmorillonite clays

PROCESSING OF A NATURAL MINERAL

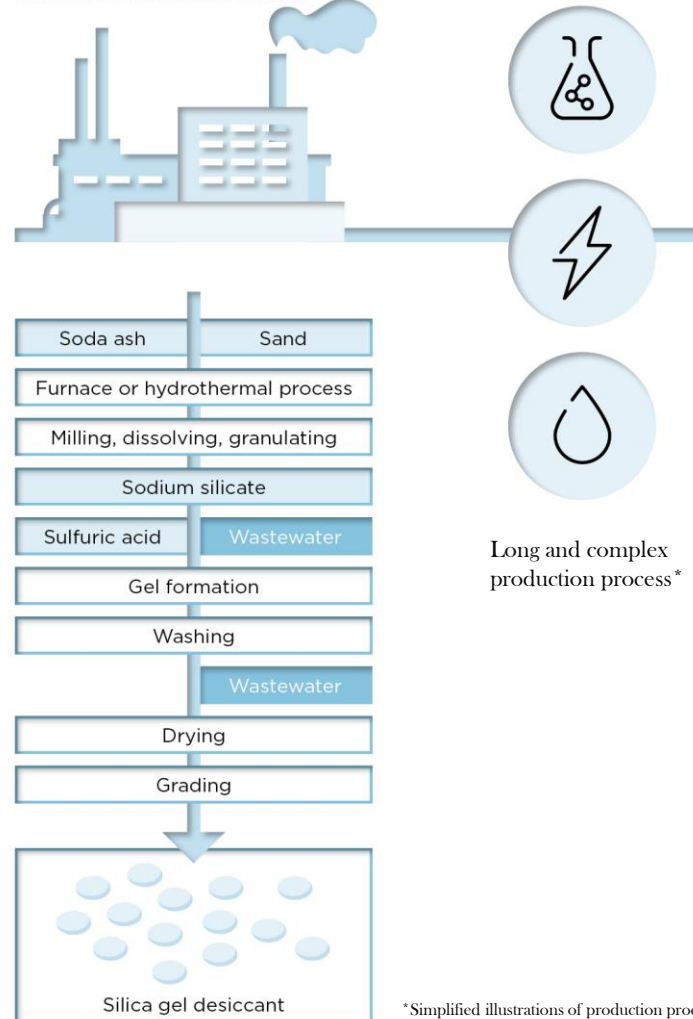


Simple production process* consisting in extraction and processing of the **natural mineral**, with low energy and no water consumption, and **recultivation of explored mines**

SILICA GEL DESICCANTS

Silicon dioxide

SYNTHETIC PRODUCTION



Long and complex production process*

Dri Clay® Production

- ✓ Simple Process: Extract, dry, and grade the minerals
- ✓ Zero chemical or water inputs
- ✓ Responsibly extracted at partner owned-mines
- ✓ Clear chain of custody from the mine to the package

Silica Gel Production

- ✗ Significant chemical inputs
- ✗ Significant water inputs
- ✗ Energy intensive
- ✗ Results in high levels of pollution and waste water

*Simplified illustrations of production processes

Packaging Materials - Dri Clay® Kraft vs Silica Gel



Dri Clay® Packaging

- ✓ Plastic-free
- ✓ Biodegradable Kraft paper
- ✓ Water-based adhesives and ink



Silica Gel Packaging

- ✗ Commonly packaged in Tyvek spun-bonded polyolefin, a high density plastic barrier
- ✗ Sealed with chemical adhesives
- ✗ Not biodegradable
- ✗ Plastic-barrier makes recycling difficult

Micro-Pak Dri Clay® Kraft

Silica Gel

Ingredient

- 100% natural bentonite clay

Packaging

- Plastic-free and biodegradable Kraft paper that is Forest Stewardship (FSC) certified

Low Impact Production Process

- No chemical use and no additives or solvent
- No water and low energy use means low carbon footprint
- Sun drying is used where possible to further reduce energy use
- Responsible mining at partner-owned sites that are restored to an equal or better state than when operations began

Chain of Custody

- Clear chain of custody from consumer packaging to the mine.
- Know exactly what ingredients are used

End of Life

- The clay is returned to the earth in its natural state
- The packaging is plastic-free and biodegradable
- No impact to soil or water systems

Chemical Management

- Meets, exceeds or is exempt from international regulations
- Contains no chemicals or chemical additives
- REACH exempt and passes all Substances of Very High Concern (SVHC) tests
- FDA and EPA compliant
- Clear chain of custody

Ingredient

- Synthetic. Made with chemicals

Packaging

- Commonly Tyvek. Made of plastic and not biodegradable

High Impact Production Process

- Chemical, water, and energy intensive
- Large volumes of wastewater generated
- Made synthetically from sodium silicate or other chemicals depending on desiccant type
- A highly polluting industry. China is the world's largest silica gel producer and the Chinese government is actively shutting down thousands of silica gel factories.

Chain of Custody

- No chain of custody
- No clear information on ingredients or harmful substances

End of Life

- Both the ingredient and the packaging are made with chemicals, contain plastics and are not biodegradable.
- Will remain in landfill indefinitely and can release harmful chemicals and toxins into the soil and water systems

Chemical Management

- Some silica gels contain DMF (banned in Europe) and cobalt chloride (a possible carcinogen)
- Subject to annual REACH reporting. Check that it is REACH certified in addition to passing Substances of Very High Concern (SVHC) tests
- No chain of custody