

Remove pesticides, unwanted color, and haze from your cannabis/hemp extracts

FIORISIL®



Provide your customers high quality, cannabis and hemp extracts and concentrates that are free of many widely-used pesticides. You can trust Florisil® a synthetic amorphous magnesium silicate and an established industry standard for adsorbing pesticides and other undesirable contaminants to produce clearer and more attractive products.

- Effectively remove many commonly used pesticides and color
- Remove haze and obtain crystal-clear extracts
- Minimize loss of your high-value components

FIORISIL[®]

Pesticide Removal From Cannabis and Hemp

Today cannabis and hemp farmers are required to follow strict regulations on the use of pesticides. Regardless, cannabis and hemp extracts are often found to be contaminated with pesticides, leading to serious issues for manufacturers including profit loss. Since the 1960s, U.S. Silica's Florisil has been established as an industry standard for effective pesticide adsorption from agricultural, environmental and other analytical samples. Florisil PR is excellent for pesticide removal from cannabis extracts - below are some results from recent studies.



 $Case\ Study$: A contaminated cannabis extract (120.8 ppm of pesticides) was cleaned using Florisil PR. (125 g of cannabis extract was dissolved in an alkane, applied to a column of Florisil PR (1 kg), and eluted with additional alkane).

Florisil PR removed

of pesticides from contaminated cannabis extract

Contaminated Extract

120.8 ppm

After Florisil PR Clean-Up

Case Study: A hemp extract was spiked with 53 regulated pesticides (>300 ppm). This spiked extract was cleaned using Florisil PR. (4 g of hemp extract dissolved in hexane was applied to a 40 g column of Florisil PR. The valuable components were eluted with hexane, and finally the pesticides were eluted with methanol for analysis).

pesticides were eliminated from the extract

Pesticides removed:

Acephate Acetamiprid Aldicarb Azoxystrobin Bifenazate Boscalid Carbaryl Carbofuran Chlorantraniliprol Daminozide Diazinon Dichlorvos Dimethoat Ethoprophos Fenoxycarb Fenpyroximat Fipronil Flonicamid

Fludioxonil Hexythiazox Imazalil Imidacloprid Kresoxim-Methyl Malathion Metalaxyl Methiocarb Methomyl

MGK 264 Myclobutanil Oxamyl Paclobutrazol Parathion Methyl **Phosmet** Piperonyl butoxide Propiconazole Propoxur

Pyrethrin I Pyridaben Spinosad Spirotetramat Spiroxamine Thiacloprid Thiamethoxam Trifloxystrobin

Florisil Amorphous Magnesium Silicate

| | | High Activation | Standard Activation | Low Activation |
|--|--|--|---------------------|------------------|
| Mesh* (80 % of particles lie within this mesh range) *ASTM number | PSD microns (80 % of particles lie within the range) | Florisil PR Grade Pesticide Residue Analysis | Florisil A Grade | Florisil B Grade |
| 16 - 30 | 1180 - 600 | | Х | Х |
| 30 - 60 | 600 - 250 | | Х | Х |
| 60 - 100 | 250 - 150 | Х | X | X |
| 100 - 200 | 150 - 75 | | X | |
| -200 | < 75 | | Х | X |





^{*} Pesticide testing run at a laboratory accredited by the Oregon Environmental Laboratory Accreditation Program