

TITLE 15

DEPARTMENT OF AGRICULTURE

Subtitle 18 STATE CHEMIST

15.18.10 Soil Conditioner Registration

Authority: Agriculture Article §6-201 et seq., Annotated Code of Maryland

.01 Scope and Purpose.

This chapter establishes the requirements for the registration of soil conditioners prior to distribution in Maryland.

.02 Incorporation by Reference.

In this chapter, the following document is incorporated by reference:

- A. SW-846, Test Method 8270E: Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry.

.03 Definitions and Terms

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

- (1) “Anaerobic Lagoon” means an earthen pond that holds or treats animal waste from farms.
- (2) “Aerated Lagoon” means an earthen pond that holds or treats low to medium strength wastewater and is partially or fully aerated.
- (3) “Agricultural land” means land used for the production of crops or for raising livestock.
- (4) “Contaminant” means a component of a soil conditioner that can lower soil quality.
- (5) “Contaminant limit” means a numerical value that describes the maximum amount of a contaminant per unit volume, such as milligrams per liter, percentage of the soil conditioner, or milligram/kilogram.
- (6) “Department” means the Maryland Department of Agriculture.
- (7) “Dissolved Air Flotation” means a water treatment process that clarifies wastewater by the removal of suspended matter such as oil or solids, as well as other solids. The removal is achieved by dissolving air in the wastewater stream under pressure then releasing the air at atmospheric pressure in a flotation tank basin. The suspended material is removed by a surface skimming device. A bottom skimmer is used for the removal of settled solids in the tank.
- (8) “Dissolved Air Flotation Sludge” means the sludge produced by the dissolved air flotation process.
- (9) “Distribute” means to import, manufacture, produce, compound, mix, blend, bater, sell, offer for sale, consign, furnish, provide, or otherwise supply a soil conditioner as part of a commercial enterprise.
- (10) “Industrial sludge” means the accumulated semiliquid suspension, settled, or dried residue of solids deposited as a by-product of an industrial, agricultural, or manufacturing process that is claimed to have value in promoting plant growth, or in producing a physical or chemical change in the soil.

- (11) “Label” means the display of all written, printed, or graphic matter on the immediate container or a statement accompanying a soil conditioner.
- (12) “Labeling” means all written, printed, or graphic matter on or accompanying any soil conditioner, or the contents of any advertisement, brochure, poster, or television or radio announcement used in promoting the sale of a soil conditioner.
- (13) “Lot” means a definite quantity of soil conditioner identified by name, grade, or code designation as certified by the Secretary.
- (14) “Origin” means the original physical source of the product.
- (15) “Percent” or “percentage” means percentage by weight.
- (16) “Person” includes the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity unless otherwise provided.
- (17) “Polycyclic (polynuclear) aromatic hydrocarbons” means class of organic compounds that is composed of multiple aromatic rings composed of only carbon and hydrogen atoms. They are produced by incomplete combustion or high-pressure processes.
- (18) “Product/brand name” means the terms, design, trademark, or other specific designation under which a soil conditioner is distributed in the State.
- (19) “Registrant” means any person who registers a soil conditioner, pursuant to the provisions of this chapter.
- (20) “Secretary” means the Secretary of Agriculture or the Secretary’s designee.
- (21) “Soil Conditioner” (commonly referred to as a soil additive or soil amendment) means any substance or mixture of substances intended for sale, offered for sale, or distributed for:
 - (a) Manurial, soil enriching, or soil corrective purposes;
 - (b) Promoting or stimulating the growth of plants;
 - (c) Increasing the productivity of plants;
 - (d) Improving the quality of crops;
 - (e) Producing any chemical or physical change in the soil, except a commercial fertilizer, unmanipulated animal and vegetable manures, agricultural liming material, and gypsum.
 - (f) Soil conditioner includes but is not limited to materials such as compost, peat, vermiculite, perlite, or digestate produced by anaerobic digestion that are incorporated into the soil.

.03 Label Format

- A. Soil Conditioner Label. Each brand and grade of soil conditioner distributed in the State shall be accompanied by a conspicuous and legible label, or by a printed statement if the soil conditioner is distributed in bulk, having the following information:
 - (1) Product name or brand name;
 - (2) Net weight or volume;
 - (3) Accurate statement of the composition of the soil conditioner and its intended use;
 - (4) Origin of the soil conditioner;

- (5) Lot number or other unique identifier;
 - (6) Manufacturer's name and address, including street address, city, state, and zip code; and.
 - (7) Any other information the Department requires.
- B. Placement of Label on Package. A registrant shall place at the following location on the product package the label or each soil conditioner:
- (1) On tags affixed to the end of the package;
 - (2) Directly on the package; or
 - (3) An invoice or delivery ticket that contains the information required in Regulation .03.A of this chapter.
 - (4) None of the information required by Regulation .03A of this chapter shall be subordinated or obscured by other statements or designs.

.04 Proof of Claim.

- A. The Department may require a registrant to prove any claim made about any conditioner.
- B. Any research supporting a claim by a registrant shall be done by a commonly recognized institution or organization approved by the Department.

.05 Registration

A. Registration

- (1) Except as provided by this chapter, a person shall register with the Department each brand of soil conditioner before it is distributed in the State.
- (2) If the product label has not been altered or changed, a distributor is not required to register any brand of soil conditioner which has been registered under this chapter by another person.
- (3) An applicant for registration shall submit to the Department the following before sending in the registration application:
 - (a) A copy of the product label; and
 - (b) Required laboratory reports for moisture, nutrients (total nitrogen, total phosphate, and total potash), heavy metal contaminants (arsenic, cadmium, chromium, copper, lead, molybdenum, nickel, selenium, and zinc), and polynuclear aromatic hydrocarbons (PAHs, as determined by Method 8270E Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry).
- (4) After review and approval of the label, and review of the laboratory reports, the registrant shall submit the registration application provided by the Department, and the registration fee of:
 - (a) \$15 for each brand registered in bulk or in a package of more than 10 pounds, or

(b) \$30 for each brand registered in a package of 10 pounds or less.

B. Registration Renewal

- (1) By February 1 of each year, a registrant for each brand of soil conditioner in the state.
- (2) An applicant for registration renewal shall submit to the Department the following:
 - (a) A completed registration renewal application on a form provided by the Department or online renewal;
 - (b) A copy of the product label and any other printed materials describing the product, if:
 - (i) The label has been altered or changed since the product label was last approved, or
 - (ii) Five years have passed since the product label was last submitted to the Department;
 - (c) Required laboratory reports for moisture, nutrients (total nitrogen, total phosphate, and total potash), heavy metal contaminants (arsenic, cadmium, chromium, copper, lead, molybdenum, nickel, selenium, and zinc), and polynuclear aromatic hydrocarbons (PAHs, as determined by Method 8270E Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry); and
 - (d) The registration fee of:
 - (i) \$15 for each brand registered in bulk or in a package of more than 10 pounds, or
 - (ii) \$30 for each brand registered in a package of 10 pounds or less.
 - (e) The laboratory reports are due each year of renewal up to the fifth year of registration. After the fifth year of registration, if the composition of the soil conditioner has not changed, the reports are due every five years thereafter, such as, year 10, year 15, etc.

.06 Contaminant Levels

A. Contaminants

(1) Metals

- (a) Metal contaminants required for laboratory analysis:
 - (i) Arsenic (As) CAS No: 7440-38-2;
 - (ii) Cadmium (Cd) CAS No: 7440-43-9;
 - (iii) Chromium (Cr) CAS No: 7440-47-3;
 - (iv) Copper (Cu) CAS No: 7440-50-8;
 - (v) Lead (Pb) CAS No: 7439-92-1;

- (vi) Mercury (Hg) CAS No: 7439-97-6;
- (vii) Molybdenum (Mo) CAS No: 7439-98-7;
- (viii) Nickel (Ni) CAS No: 7440-02-0;
- (ix) Selenium (Se) CAS No: 7782-49-2; and
- (x) Zinc (Zn) CAS No: 7440-66-6.

(2) Polynuclear Aromatic Hydrocarbons

- (a) Acenaphthene CAS No: 83-32-9;
- (b) Acenaphthylene CAS No: 208-96-8;
- (c) Anthracene CAS No: 120-12-7;
- (d) Benzo(a)anthracene CAS No: 56-55-3;
- (e) Benzo(a)pyrene CAS No: 50-32-8;
- (f) Benzo(b)fluoranthene CAS No: 205-99-2;
- (g) Benzo(g,h,i)perylene CAS No: 191-24-2;
- (h) Benzo(k)fluoroanthene CAS No: 207-08-9;
- (i) Chrysene CAS No: 218-01-9;
- (j) Dibenzo(a,h)anthracene CAS No: ;
- (k) Fluoroanthrene CAS No: 53-70-3;
- (l) Fluorene CAS No: 86-73-7;
- (m) Indeno(1,2,3-cd)pyrene CAS No: 193-39-5;
- (n) Naphthalene CAS No: 91-20-3;
- (o) Phenanthrene CAS No: 85-01-8; and
- (p) Pyrene CAS No: 204-927-3.

B. Contaminant concentrations

Table 1 – Maximum Contaminant Level	
Contaminant	Maximum Concentration (as is basis)
Metals	
Arsenic (As)	0.69 mg/L
Cadmium (Cd)	22.60 mg/L
Chromium (Cr)	41.60 mg/L
Copper (Cu)	10.86 mg/L

Lead (Pb)	1.85 mg/L
Mercury (Hg)	1.06 mg/L
Molybdenum (Mo)	1.73 mg/L
Nickel (Ni)	1.89 mg/L
Selenium (Se)	1.34 mg/L
Zinc (Zn)	81.0 mg/L
PAH's	
Acenaphthene	1.04 mg/L
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Anthracene	5.31 mg/L
Benzo(a)anthracene	0.48 mg/L
Benzo(a)pyrene	0.48 mg/L
Benzo(b)fluoranthene	0.48 mg/L
Benzo(g,h,i)perylene	0.48 mg/L
Benzo(k)fluoranthene	6.93 µg/L
Chrysene	0.48 µg/L
Dibenzo(a,h)anthracene	0.48 mg/L
Fluoranthene	0.69 mg/L
Fluorene	0.69 mg/L
Indeno(1,2,3-cd)pyrene	0.48 mg/L
Naphthalene	0.39 mg/L
Phenanthrene	0.53 mg/L
Pyrene	0.53 mg/L

.07 Record-Keeping Requirements of Registrant.

- A. A registrant shall keep complete records on the distribution of each lot of soil conditioner and make these records available to the Department upon request.
- B. A registrant shall keep records for 2 years after a soil conditioner lot is

distributed.

C. A registrant's records shall have the following information:

- (1) Source of soil conditioner lot;
- (2) Manufacturer or supplier's name, address, and telephone number; and
- (3) Lot numbers, quantities, dates of production or deliver, and available bar code information.

.08 Tonnage and Sales Information Reporting

A. Statement required.

(1) The registrant of each soil conditioner shall submit to the Department:

- (a) A semiannual statement of tonnage of each soil conditioner distributed in the State; and
- (b) An inspection fee of 25 cents for each ton distributed, except a soil conditioner product distributed in a package of 10 pounds or less.

(2) This statement and inspection fee shall include each sale for the periods of January 1 through June 30 or July 1 through December 31 of each year.

B. Failure to File Statement or Pay Fee. If a registrant does not file a tonnage report and the inspection fee within 31 days after the end of the semiannual period, a collection fee amounting to 10 percent of the amount, or a minimum of \$10, shall be assessed against the registrant. The amount of fees due constitutes a debt and may become the basis of a judgement against the registrant.