

Foreword

QCVN 15:2008/BTNMT was prepared by the Committee of National Technical Regulations on soil quality, submitted for approval by the General Department of Environment and the Legal Department and promulgated under the Decision No.16/2008/QD-BTNMT dated on December 31st, 2008 of the Minister of Natural Resources and Environment.

National Technical Regulation on the pesticide residues in the soils

1. GENERAL REGULATIONS

1.1 Scope of regulation

This Technical regulation specifies maximum allowable limits of the pesticide residues in the topsoil.

This specification is used to control and assess the pollution level of pesticide in topsoil.

1.2. Subject of application

This Technical regulation is applicable to organizations and individuals related to the use of soil in the territory of Vietnam.

1.3. Explanation of terms

In this Regulation, the following terms can be expressed as follows:

1.3.1. Pesticide is a substance used for pest prevention, including all substances or mixture of substances used for preventing, destroying or controlling pests. Pesticide in some cases also include growth stimulants, prevent fruit drop, early ripening, leaf drop.

1.3.2. Pesticide residues in the soils are a content of pesticide in topsoil at the time of inspection and analysis.

1.3.3. Dry soil

As the absolute dryness soil applied according to TCVN 6647:2000 - Soil quality. Pretreatment of samples for physico-chemical analysis, and TCVN 5297:1995 - Soil quality - Sampling - General requirements.

1.3.4. Topsoil: is cultivated soil in agricultural production, for the soil types used for other purposes to obtain a depth of 30cm.

2.TECHNICAL REGULATIONS

2.1. Maximum allowable limit of the pesticide residues in the topsoil are specified in table 1 as follows:

Table 1: Maximum allowable limit of the pesticide residues in the soils

Calculation unit: mg/kg dry soil

Serial number	Chemical formula	Common trade name	Maximum allowable limit	Main purpose
1	Atrazine (C ₈ H ₁₄ ClN ₅)	Atra 500 SC, Atranex 80 WP, Co-co 50 50 WP, Fezprim 500 FW, Gesaprim 80 WP/BHN, 500 FW/DD, Maizine 80 WP, Mizin 50 WP, 80 WP, Sanazine 500 SC	0.10	Weedkillers
2	Benthiocarb (C ₁₆ H ₁₆ C ₁ NOS)	Saturn 50 EC, Saturn 6 H	0.10	Weedkillers
3	Cypermethrin (C ₂₂ H ₁₉ C ₁₂ NO ₃)	Antiborer 10 EC, Celcide 10 EC	0.10	Preservation of forestry products
4	Cartap (C7H15N3O2S2)	Alfatap 95 SP, Cardan 95 SP, Mapan 95 SP, 10 G, Padan 50 SP, 95 SP, 4G, 10 G, Vicarp 95 BHN, 4 H	0.05	Pesticide
5	Dalapon (C ₃ H ₄ Cl ₂ O ₂)	Dipoxim 80 BHN, Vilapon 80 BTN	0.10	Weedkillers
6	Diazinon (C ₁₂ H ₂₁ N ₂ O ₃ PS)	Agrozinon 60 EC, Azinon 50 EC, Cazinon 10 H; 40ND; 50ND; Diazan 10 H; 40EC: 50ND; 60 EC	0,05	Pesticide
7	Dimethoate (C ₅ H ₁₂ NO ₃ SP ₂)	Dimethoate	0,05	Pesticide
8	Fenobucarb (C ₁₂ H ₁₇ NO ₂)	Anba 50 EC, Bassan 50 EC, Dibacide 50 EC, Forcin 50 EC, Pasha 50 EC	0,05	Pesticide
9	Fenoxaprop - p- ethyl (C ₁₆ H ₁₂ ClNO ₅)	Whip'S 7.5 EW, 6.9 EC; Web 7.5 SC	0,10	Weedkillers
10	Fenvalerate (C ₂₅ H ₂₂ ClNO ₃)	Cantocidin 20 EC, Encofenva 20 EC, Fantasy 20 EC, Pyvalerate 20 EC, Sumicidin 10 EC, 20 EC	0,05	Pesticide

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11	Isoprothiolane (C ₁₂ H ₁₈ O ₄ S ₂)	Rice blast 40 EC, Caso one 40 EC, Fuan 40 EC, Fuji - One 40 EC, 40 WP, Fuzin 40 EC	0.05	Fungicides
12	Metolachlor (C ₁₅ H ₂₂ ClNO ₂)	Dual 720 EC/ND, Dual Gold ®960 ND	0.10	Weedkillers
13	MPCA (C9H9ClO3)	Agroxone 80 WP	0.10	Weedkillers
14	Pretilachlor (C ₁₇ H ₂₆ ClNO ₂)	Acofit 300 EC, Sofit 300 EC/ND, Bigson-fit 300EC	0.10	Weedkillers
15	Simazine (C ₇ H ₁₂ ClN ₅)	Gesatop 80 WP/BHM, 500 FW/DD, Sipazine 80 WP, Visimaz 80 BTN	0.10	Weedkillers
16	Trichlorfon (C ₄ H ₈ Cl ₃ O ₄ P)	Dipterex 90 SP, Sunchlorfon 90 SP	0.05	Pesticide
17	2,4-D(C ₈ H ₆ Cl ₂ O ₃)	A.K 720 DD, Amine 720 DD, Anco 720 DD, Cantosin 80 WP, Desormone 60 EC, 70 EC, Co Broad 80 WP, Sanaphen 600 SL, 720 SL	0.10	Weedkiller
18	Aldrin (C ₁₂ H ₈ C ₁₆)	Aldrex, Aldrite	0.01	Prohibited
19	Captan (C ₉ H ₈ C ₁₃ NO ₂ S)	Captane 75 WP, Merpan 75 WP	0.01	Prohibited
20	Captafol (C ₁₀ H ₉ C ₁₄ NO ₂ S)	Difolatal 80 WP, Flocid 80 WP	0.01	Prohibited
21	Chlordimeform (C ₁₀ H ₁₃ ClN ₂)	Chlordimeform	0.01	Prohibited
22	Chlordane (C ₁₀ H ₆ Cl ₈)	Chlorotox, Octachlor, Pentichlor	0.01	Prohibited
23	DDT (C ₁₄ H ₉ Cl ₅)	Neocid, Pentachlorin, Chlorophenothane	0.01	Prohibited
24	Dieldrin (C ₁₂ H ₈ Cl ₆ O)	Dieldrex, Dieldrite, Octalox	0.01	Prohibited
25	Endosulfan (C ₉ H ₆ Cl ₆ O ₃ S)	Cyclodan 35EC, Endosol 35EC, Tigiodan 35ND, Thasodant 35EC, Thiodol 35ND	0.01	Prohibited
26	Endrin	Hexadrin	0.01	Prohibited

	$(C_{12}H_8Cl_6O)$			
27	Heptachlor (C ₁₀ H ₅ Cl ₇)	Drimex, Heptamul, Heptox	0.01	Prohibited
28	Hexachlorobenzene (C ₆ Cl ₆)	Anticaric, HCB	0.01	Prohibited
29	Isobenzene (C ₉ H ₄ OC1 ₈)	Isobenzene	0.01	Prohibited
30	Isodrine (C ₁₂ H ₈ Cl ₆)	Isodrine	0.01	Prohibited
31	Lindane ($C_6H_6Cl_6$)	Lindane	0.01	Prohibited
32	Methamidophos (C ₂ H ₈ NO ₂ PS)	Monitor (Methamidophos)	0.01	Prohibited
33	Monocrotophos (C ₇ H ₁₄ NO ₅ P)	Monocrotophos	0.01	Prohibited
34	Methyl Parathion (C ₈ H ₁₀ NO ₅ PS)	Methyl Parathion	0.01	Prohibited
35	Sodium Pentachlorophenat e monohydrate C ₅ Cl ₅ ONa.H ₂ O	Copas NAP 90 G, PMD4 90 powder, PBB 100 powder	0.01	Prohibited
36	Parathion Ethyl (C ₇ H ₁₄ NO ₅ P)	Alkexon, Orthophos, Thiopphos	0.01	Prohibited
37	Pentachlorophenol (C ₆ HCl ₅ IO)	CMM7 liquid oil	0.01	Prohibited
38	Phosphamidon (C ₁₀ H ₁₉ ClNO ₅ P)	Dimecron 50 SCW/DD	0.01	Prohibited
39	Polychlorocamphe ne C ₁₀ H ₁₀ C ₁₈	Toxaphene, Camphechlor, Strobane	0.01	Prohibited

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3. DETERMINATION METHOD

3.1. Sampling: A sample taken to determine the pesticide residues in the soil throughout the topsoil is removed, according to TCVN 5297:1995 - Soil Quality - Sampling - General requirements and TCVN 7538-2:2005 - Soil quality - Sampling - Part 2: Guidance on sampling techniques

3.2. Analytical method for determining the pesticide residues in the soil under the guidance of the current national standard. In case, the parameters are defined in regulation without national standards, then apply relevant standards of international organizations or directed by the guidance of pesticide manufacturer is permitted for use in Vietnam.

4. ORGANIZATION OF IMPLEMENTATION

4.1. This regulation is replaced the application of Vietnam Standard TCVN 5941 : 1995 - Maximum allowable limits of pesticide residues in the soil in the list of Vietnam standards on environment which obligate to apply, is issued enclosed with Decision No. 35/2002 /QD-BTNMT dated June 25th, 2002 of the Minister of Natural Resources and Environment

4.2. In cases, the national standards cited in this regulation are amended, supplemented or replaced, then apply the new standard.