

Circular

20 April 2020

To all Local Food Farms / Importers / Manufacturers

All declaring agents are requested to inform the importers of the contents of this circular.

Dear Sir/Madam

MAXIMUM RESIDUE LIMITS ESTABLISHED FOR PESTICIDES AND VETERINARY DRUGS PREVIOUSLY NOT ALLOWED IN FOOD

Maximum limits for incidental constituents in food, commonly termed as “contaminants” are specified under the Food Regulations. The Singapore Food Agency (SFA) continuously reviews and updates maximum limits for incidental constituents under the Food Regulations in order to safeguard consumer health and to meet the changing needs of the food industry. Maximum limits are published on SFA’s website to provide greater transparency to the industry on Singapore’s requirements.

2 The maximum residue limits (MRLs) for pesticides are stipulated under the Ninth Schedule of the Food Regulations. For pesticides which do not have MRLs stipulated under the Ninth Schedule of the Food Regulations, the MRLs adopted by the Codex Alimentarius Commission (Codex) are used. Currently, pesticides of which MRLs have not been established under the Food Regulations or adopted by the Codex Alimentarius Commission should not be detected in food products.

3 Veterinary drugs, as defined under Regulation 29(3) of the Food Regulations, are currently not permitted to be detected in food.

4 To facilitate trade, SFA has assessed the risk on the presence of low levels of pesticide and veterinary drug residues in various food commodities. SFA has established MRLs for pesticides that are currently neither specified under the Ninth Schedule nor adopted by Codex. SFA has also established MRLs for some veterinary drugs instead of applying “not detected” as the default limit. These newly established MRLs for residues of pesticides and veterinary drugs in the food commodities are listed in **Annex A**.

5 The newly established MRLs provide greater clarity and are in-line with the relevant Codex standards or regulatory standards of major developed countries. SFA

has conducted risk assessments to ensure that the consumption of food containing pesticide and veterinary drug residues at levels below these new MRLs is safe.

6 SFA will administer the MRLs for the specified pesticides and veterinary drugs in food commodities listed in **Annex A** with effect from **1 May 2020**. All traders are reminded to ensure that food products made available for sale on or after 1 May 2020 comply with these requirements.

7 The complete list of maximum limits for contaminants in food is available on our website at www.sfa.gov.sg.

ISSUED BY:

FOOD REGULATORY MANAGEMENT DIVISION
SINGAPORE FOOD AGENCY

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ANNEX A: Maximum residue limits (MRLs) for pesticides and veterinary drugs in food

Part 1: Pesticide Residues

In order to facilitate trade, SFA has established new maximum residue limits (MRLs) for various pesticides. These MRLs can be downloaded from the SFA website at this weblink:

[https://www.sfa.gov.sg/docs/default-source/legislation/sale-of-food-act/annex-a-of-circular-dated-20-apr-2020-\(pesticide-mrls\).xlsx](https://www.sfa.gov.sg/docs/default-source/legislation/sale-of-food-act/annex-a-of-circular-dated-20-apr-2020-(pesticide-mrls).xlsx)

MRLs that are marked with an “*” are default MRLs.

In addition to the newly established MRLs that can be downloaded from the weblink above, existing provisions under Regulation 30 and the Ninth Schedule of the Food Regulations for pesticide residues in food will continue to apply. Where the MRLs are not prescribed in the Ninth Schedule, or the list of new MRLs specified, please refer to the MRLs adopted by the Codex Alimentarius Commission.

Part 2: Veterinary Drugs

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
Thiamphenicol	Cattle	Muscle	Not detected	50
		Kidney		50
		Liver		50
		Milk		50
	Sheep	Muscle	Not detected	50
		Kidney		50
		Liver		50
		Milk		50
	Pig	Muscle	Not detected	50
		Kidney		50
		Liver		50
	Poultry	Muscle	Not detected	50
Kidney		50		
Liver		50		
Florfenicol	Cattle	Muscle	Not detected	200
		Kidney		300
		Liver		3000

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Sheep, Goat	Muscle Kidney Liver	Not detected	200 300 3000
	Pig	Muscle Kidney Liver	Not detected	300 500 2000
	Poultry	Muscle Kidney Liver	Not detected	100 750 2500
Clenbuterol	Cattle	Muscle Kidney Liver Milk	Not detected	0.2 0.6 0.6 0.05
Ractopamine	Cattle	Muscle Kidney Liver	Not detected	10 90 40
	Pig	Muscle Kidney Liver	Not detected	10 90 40
Zilpaterol	Cattle	Muscle Kidney Liver	Not detected	10 10 10
Bacitracin	Cattle	Muscle Kidney Liver Milk	Not detected	500 500 500 500
	Pig	Muscle Kidney Liver	Not detected	500 500 500
	Chicken, Turkey, Quail and Pheasants	Muscle Kidney Liver Eggs	Not detected	500 500 500 500
Novobiocin	Cattle	Muscle Milk	Not detected	1000 100
	Chicken, Turkey, Duck	Muscle	Not detected	1000
Virginiamycin	Cattle	Muscle Kidney Liver Milk	Not detected	100 200 200 100

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Sheep	Muscle Kidney Liver	Not detected	100 200 200
	Pig	Muscle Kidney Liver	Not detected	100 300 300
	Chicken	Muscle Kidney Liver Eggs	Not detected	50 200 200 100
Tylosin	Cattle	Muscle Kidney Liver Milk	Not detected	100 100 100 100
	Pig	Muscle Kidney Liver	Not detected	100 100 100
	Chicken	Muscle Kidney Liver Eggs	Not detected	100 100 100 300
Erythromycin	Cattle	Milk	Not detected	40
	Chicken, Turkey	Muscle Kidney Liver Eggs	Not detected	100 100 100 50 (Chicken)
Oleandomycin	Chicken	Muscle	Not detected	150
Tiamulin	Pig	Muscle Kidney Liver	Not detected	100 100 500
	Chicken	Muscle Kidney Liver Eggs	Not detected	100 100 1000 1000
Josamycin	Pig	Muscle Kidney Liver	Not detected	40 40 40
	Chicken	Muscle Kidney Liver	Not detected	40 40 40

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
Tilmicosin	Cattle	Muscle Kidney Liver Milk	Not detected	100 300 1000 50
	Sheep	Muscle Kidney Liver Milk	Not detected	100 300 1000 50
	Pig	Muscle Kidney Liver	Not detected	100 1000 1500
	Chicken	Muscle Kidney Liver	Not detected	150 600 2400
	Turkey	Muscle Kidney Liver	Not detected	100 1200 1400
Spiramycin	Cattle	Muscle Kidney Liver Milk	Not detected	200 300 600 200
	Pig	Muscle Kidney Liver	Not detected	200 300 600
	Chicken	Muscle Kidney Liver	Not detected	200 800 600
Lincomycin	Cattle	Milk	Not detected	150
	Pig	Muscle Kidney Liver	Not detected	200 1500 500
	Chicken	Muscle Kidney Liver Eggs	Not detected	200 500 500 50
Penicillin G	Cattle	Muscle Kidney Liver Milk	Not detected	50 50 50 4
	Pig	Muscle Kidney Liver	Not detected	50 50 50

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Chicken	Muscle Kidney Liver	Not detected	50 50 50
Ampicillin	Cattle	Muscle Kidney Liver Milk	Not detected	50 50 50 4
	Sheep	Muscle Kidney Liver Milk	Not detected	50 50 50 4
	Pig	Muscle Kidney Liver	Not detected	50 50 50
	Poultry	Muscle Kidney Liver	Not detected	50 50 50
Oxacillin	Cattle	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Sheep	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Pig	Muscle Kidney Liver	Not detected	300 300 300
	Poultry	Muscle Kidney Liver	Not detected	300 300 300
Nafcillin	Cattle	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Sheep	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Pig	Muscle Kidney Liver	Not detected	300 300 300

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Poultry	Muscle Kidney Liver	Not detected	300 300 300
Cloxacillin	Cattle	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Sheep	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Pig	Muscle Kidney Liver	Not detected	300 300 300
	Poultry	Muscle Kidney Liver	Not detected	300 300 300
Dicloxacillin	Cattle	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Sheep	Muscle Kidney Liver Milk	Not detected	300 300 300 30
	Pig	Muscle Kidney Liver	Not detected	300 300 300
	Poultry	Muscle Kidney Liver	Not detected	300 300 300
Amoxicillin	Cattle	Muscle Kidney Liver Milk	Not detected	50 50 50 4
	Sheep	Muscle Kidney Liver Milk	Not detected	50 50 50 4
	Pig	Muscle Kidney Liver	Not detected	50 50 50
Cefoperazone	Cattle	Milk	Not detected	50

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
Cefazolin	Cattle	Kidney Liver Milk	Not detected	50 50 50
	Sheep	Milk	Not detected	50
Cefalexin	Cattle	Muscle Kidney Liver Milk	Not detected	200 1000 200 100
Ceftiofur	Cattle	Muscle Kidney Liver Milk	Not detected	1000 6000 2000 100
	Pig	Muscle Kidney Liver	Not detected	1000 6000 2000
Trenbolone	Cattle	Muscle Liver	Not detected	2 10
Zeranol (Zer)	Cattle	Muscle Kidney Liver Milk	Not detected	2 20 10 2
	Pig	Muscle Kidney Liver	Not detected	2 2 2
	Chicken	Muscle Kidney Liver Eggs	Not detected	2 2 2 2
Norfloxacin	Pig	Muscle Kidney Liver	Not detected	20 20 20
	Chicken	Muscle Kidney Liver	Not detected	20 20 20
SUM of Ciprofloxacin / Enrofloxacin	Cattle	Muscle Kidney Liver Milk	Not detected	100 200 300 100
	Sheep	Muscle Kidney Liver Milk	Not detected	100 200 300 100

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Pig	Muscle Kidney Liver	Not detected	100 300 200
	Poultry	Muscle Kidney Liver	Not detected	100 300 200
Danofloxacin	Cattle	Muscle Kidney Liver Milk	Not detected	200 400 400 30
	Pig	Muscle Kidney Liver	Not detected	100 200 50
	Chicken	Muscle Kidney Liver	Not detected	200 400 400
Sarafloxacin	Chicken, Turkey	Muscle Kidney Liver	Not detected	10 80 80
Difloxacin	Cattle	Muscle Kidney Liver	Not detected	400 800 1400
	Sheep	Muscle Kidney Liver Milk	Not detected	400 800 1400
	Pig	Muscle Kidney Liver	Not detected	400 800 800
	Poultry	Muscle Kidney Liver	Not detected	300 600 1900
Marbofloxacin	Cattle	Muscle Kidney Liver Milk	Not detected	150 150 150 75
	Pig	Muscle Kidney Liver	Not detected	150 150 150
Doxycycline	Cattle	Muscle Kidney Liver	Not detected	100 600 300

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Pig	Muscle Kidney Liver	Not detected	100 600 300
	Poultry	Muscle Kidney Liver	Not detected	100 600 300
SUM of (Chlortetracycline & 4-Epichlortetracycline)	Cattle	Muscle Kidney Liver Milk	Not detected	200 1200 600 100
	Sheep	Muscle Kidney Liver Milk	Not detected	200 1200 600 100
	Pig	Muscle Kidney Liver	Not detected	200 1200 600
	Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Muscle Kidney Liver Eggs	Not detected	200 1200 600 400
SUM of (Oxytetracycline & 4-EpiOxytetracycline)	Cattle	Muscle Kidney Liver Milk	Not detected	200 1200 600 100
	Sheep	Muscle Kidney Liver Milk	Not detected	200 1200 600 100
	Pig	Muscle Kidney Liver	Not detected	200 1200 600
	Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Muscle Kidney Liver Eggs	Not detected	200 1200 600 400
SUM of (Tetracycline & 4-EpiTetracycline)	Cattle	Muscle Kidney Liver Milk	Not detected	200 1200 600 100

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Sheep	Muscle Kidney Liver Milk	Not detected	200 1200 600 100
	Pig	Muscle Kidney Liver	Not detected	200 1200 600
	Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Muscle Kidney Liver Eggs	Not detected	200 1200 600 400
Sum of Sulfonamides Sulfaguanidine (SG) Sulfathiazole (STH) Sulfadiazine (SDZ) Sulfapyridine (SP) Sulfamethiazole (SMI) Sulfamerazine (SMR) Sulfadimidine (SDD) Sulfamethoxypyridazine (SMP) Sulfamonomethoxine (SMM) Sulfachloropyridazine (SCP) Sulfadoxine (SDI) Sulfisoxazole (SFX) Sulfamethoxazole (SMZ) Sulfaquinoxaline (SQX) Sulfadimethoxine (SDM) Sulfanilamide (SNA) Sulfamoxole (SMX)	Cattle	Muscle Kidney Liver Milk	Not detected	100 100 100 100
	Sheep	Muscle Kidney Liver Milk	Not detected	100 100 100 100
	Pig	Muscle Kidney Liver	Not detected	100 100 100
	Poultry	Muscle Kidney Liver	Not detected	100 100 100
Oxolinic Acid	Cattle	Muscle Kidney Liver	Not detected	100 150 150
	Sheep	Muscle Kidney Liver	Not detected	100 150 150

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Pig	Muscle Kidney Liver	Not detected	100 150 150
	Poultry	Muscle Kidney Liver	Not detected	100 150 150
Flumequine	Cattle	Muscle Kidney Liver Milk	Not detected	500 3000 500 50
	Sheep	Muscle Kidney Liver Milk	Not detected	500 3000 500 50
	Pig	Muscle Kidney Liver	Not detected	500 3000 500
	Chicken	Muscle Kidney Liver	Not detected	500 3000 500
	Fish	Muscle	Not detected	500
Nicarbazin	Chicken	Muscle Kidney Liver	Not detected	200 200 200
Narasin	Cattle	Muscle Kidney Liver	Not detected	15 15 50
	Pig	Muscle Kidney Liver	Not detected	15 15 50
	Chicken	Muscle Kidney Liver	Not detected	15 15 50
Salinomycin	Cattle	Muscle Kidney Liver	Not detected	20 500 400
	Pig	Muscle Kidney Liver	Not detected	100 100 200

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Chicken	Muscle Kidney Liver eggs	Not detected	100 500 500 20
Monensin	Cattle	Muscle Kidney Liver Milk	Not detected	10 10 100 2
	Sheep / Goat	Muscle Kidney Liver	Not detected	10 10 20
	Chicken, Turkey, Quail	Muscle Kidney Liver	Not detected	10 10 10
Lasalocid	Chicken, Turkey, Quail, Pheasants	Muscle Kidney Liver Eggs	Not detected	400 600 1200 150
Diclazuril	Sheep	Muscle Kidney Liver	Not detected	500 2000 3000
	Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Muscle Kidney Liver	Not detected	500 2000 3000
Maduramycin	Chicken	Muscle Liver	Not detected	240 720
Robenidine	Chicken	Muscle Kidney Liver	Not detected	100 100 100
Clopidol	Cattle	Muscle Kidney Liver Milk	Not detected	200 3000 2000 20
	Pig	Muscle Kidney Liver	Not detected	200 200 200
	Chicken	Muscle Kidney Liver Eggs	Not detected	5000 20 000 20 000 200
Abamectin	Cattle	Kidney Liver	Not detected	50 100

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Sheep	Muscle Kidney Liver	Not detected	20 20 25
Doramectin	Cattle	Muscle Kidney Liver Milk	Not detected	10 30 100 15
	Pig	Muscle Kidney Liver	Not detected	5 30 100
Emamectin Benzoate	Cattle	Kidney Liver	Not detected	10 10
	Pig	Kidney Liver	Not detected	10 10
	Salmon, Trout	Muscle	Not detected	100
Eprinomectin	Cattle	Muscle Kidney Liver Milk	Not detected	100 300 2000 20
Ivermectin	Cattle	Muscle Kidney Liver Milk	Not detected	30 100 800 10
	Sheep	Liver	Not detected	15
	Pig	Liver	Not detected	15
Moxidectin	Cattle & Deer	Muscle Kidney Liver Milk	Not detected	20 50 100 40
	Sheep	Muscle Kidney Liver Milk	Not detected	50 50 100 40
SUM of (Dihydrostreptomycin and Stretomycin)	Cattle	Muscle Kidney Liver Milk	Not detected	600 1000 600 200
	Sheep	Muscle Kidney Liver Milk	Not detected	600 1000 600 200

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Pig	Muscle Kidney Liver	Not detected	600 1000 600
	Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Muscle Kidney Liver	Not detected	600 1000 600
Gentamicin	Cattle	Muscle Kidney Liver Milk	Not detected	100 5000 2000 200
	Pig	Muscle Kidney Liver	Not detected	100 5000 2000
Kanamycin	Cattle	Muscle Kidney Milk	Not detected	100 2500 150
	Sheep	Muscle Kidney Milk	Not detected	100 2500 150
	Pig	Muscle Kidney	Not detected	100 2500
	Poultry	Muscle Kidney	Not detected	100 2500
Neomycin	Cattle	Muscle Kidney Liver Milk	Not detected	500 10 000 500 1500
	Sheep	Muscle Kidney Liver	Not detected	500 10 000 500
	Pig	Muscle Kidney Liver	Not detected	500 10 000 500
	Chicken, Turkey, Duck	Muscle Kidney Liver Eggs	Not detected	500 10 000 500 500 (Chicken)
Paromomycin	Cattle	Muscle Kidney Liver	Not detected	500 1500 1500

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
	Sheep	Muscle Kidney Liver	Not detected	500 1500 1500
	Pig	Muscle Kidney Liver	Not detected	500 1500 1500
	Poultry	Muscle Kidney Liver	Not detected	500 1500 1500
Trimethoprim	Cattle	Muscle Kidney Liver Milk	Not detected	50 50 50 50
	Sheep	Muscle Kidney Liver Milk	Not detected	50 50 50 50
	Pig	Muscle Kidney Liver	Not detected	50 50 50
	Poultry	Muscle Kidney Liver	Not detected	50 50 50
SUM of Albendazole and Albendazole Sulfone and Albendazole Sulfoxide	Cattle	Muscle Kidney Liver Milk	Not detected	100 5000 5000 100
	Sheep	Muscle Kidney Liver Milk	Not detected	100 5000 5000 100
SUM of Thiabendazole and Hydroxythiabendazole	Cattle	Muscle Kidney Liver Milk	Not detected	100 100 100 100
	Sheep	Muscle Kidney Liver	Not detected	100 100 100
	Pig	Muscle Kidney Liver	Not detected	100 100 100

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
Mebendazole	Sheep	Muscle	Not detected	60
		Kidney		60
Flubendazole	Pig	Liver	Not detected	400
		Muscle		10
	Kidney	300		
	Liver	10		
SUM of Oxfendazole and Fenbendazole	Cattle	Muscle	Not detected	100
		Kidney		100
	Liver	500		
	Milk	100		
Sheep / Goat	Muscle	Not detected	100	
	Kidney		100	
	Liver		500	
Pig	Milk	Not detected	100	
	Muscle		100	
	Kidney		500	
Levamisole	Cattle	Liver	Not detected	100
		Muscle		10
	Kidney	10		
	Liver	100		
Sheep	Muscle	Not detected	10	
	Kidney		10	
Pig	Liver	Not detected	100	
	Muscle		10	
Chickens, Turkeys, Ducks, Geese, Guinea-fowls or Pigeons	Kidney	Not detected	10	
	Liver		10	
	Muscle		100	
Triclabendazole	Cattle	Muscle	Not detected	250
		Kidney		400
Sheep	Liver	Not detected	850	
	Muscle		200	
	Kidney		200	
		Liver		300

Veterinary Drugs	Animal Species	Tissue (i.e. Muscle, kidney, liver, eggs, or milk)	Current requirement	MRL (ppb) from 1 May 2020
Oxybendazole	Pig	Muscle Kidney Liver	Not detected	100 100 200
5-Hydroflunixin	Cattle	Milk	Not detected	50
Diclofenac	Cattle	Muscle Kidney Liver Milk	Not detected	5 10 5 0.1
	Pig	Muscle Kidney Liver	Not detected	5 10 5
Flunixin	Cattle	Muscle Kidney Liver	Not detected	20 100 300
	Pig	Muscle Kidney Liver	Not detected	50 30 200
Meloxicam	Cattle/Goat	Muscle Kidney Liver Milk	Not detected	20 65 65 15
	Pig	Muscle Kidney Liver	Not detected	20 65 65
Dexamethasone	Cattle	Muscle Kidney Liver Milk	Not detected	1 1 2 0.3
	Pig	Muscle Kidney Liver	Not detected	1 1 2
6-Alpha-Methylprednisolone	Cattle	Muscle Kidney Liver	Not detected	10 10 10
Prednisolone	Cattle	Muscle Kidney Liver Milk	Not detected	4 10 10 6

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