

National Registration Authority for Agricultural and Veterinary Chemicals

The MRL Standard

Maximum residue limits in food and animal feedstuff

June 2002

Table 5

Uses of substances where maximum residue limits are not necessary

Situations where residues do not or should not occur in foods or animal feeds; or where the residues are identical to or indistinguishable from natural food components; or are otherwise of no toxicological significance.

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Substance	Use
Acetic acid	<ul style="list-style-type: none">- Fungistat on stored grain for animal use- Disinfectant for animal and poultry houses, egg hatcheries and associated equipment
Acrolein	<ul style="list-style-type: none">- Aquatic weed control
Adhatoda Herbal Extract	<ul style="list-style-type: none">- Control of Helminths in sheep
<i>Agrobacterium radiobacter</i> Strains K84 and K1026	<ul style="list-style-type: none">- For the control of crown gall

Aldrin	- Timber treatment, non-food containers
Alkoxylated fatty alkylamine polymer	- In tree and vine crops
Allyl alcohol	- Pre-planting treatment of vegetable seed beds
Alum	- Molluscicide - Mollusc repellent
Aluminium silicates	- Insect dessicant for stored seeds
Amitrole	- Herbicide for control of blackberries
Ammonia	- Treatment of citrus fruits
Ammonium fluorosilicate	- Adjuvant for silica gel insecticide
Ammonium sulphamate	- Herbicide on pasture and rangeland
Ammonium thiocyanate	- Herbicide on bananas, orchards, papaya [pawpaw], pastures, plantations of pineapples, potatoes and sugar cane - Preplanting soil treatment for cereal crops
Ammonium Thiosulphate	- Blossom thinning agent
Andrographis Herbal Extract	- Control of Helminths in sheep
Androstenedione albumin conjugate with DEAE dextran adjuvant	- For improvement of fecundity in sheep
Anthraquinone	- Seed dressing
Atis Herbal Extract	- Control of Helminths in sheep
<i>Bacillus cereus</i>	- Establishing gastrointestinal microflora of neonatal pigs and maintaining gastrointestinal microflora of pigs and poultry
<i>Bacillus licheniformis</i>	When used to control Fusarium wilt in cotton
<i>Bacillus pumilus</i>	- When used as a silage inoculant
<i>Bacillus subtilis</i>	When used to control Fusarium wilt in cotton
<i>Bacillus thuringiensis</i> Berliner subsp <i>aizawai</i>	- For use as an insecticide on food and non-food producing crops and ornamentals
<i>Bacillus thuringiensis</i> Berliner <i>israelensis</i>	- Mosquito control in water
<i>Bacillus thuringiensis kurstaki</i> delta endotoxin encapsulated in killed <i>Pseudomonas fluorescens</i>	- As an insecticide for cotton, pome fruits, stone fruits, grapes and vegetables
<i>Bacillus thuringiensis kurstaki</i> delta endotoxin protein	- Insecticide expressed in recombinant cotton
<i>Bacillus thuringiensis</i> Berliner subsp <i>kurstaki</i>	- For use as an insecticide on food and non-food producing crops, ornamentals, amenity plantings and in forestry

<i>Bacillus toyoi</i>	- Growth promotant in cattle and pigs
Bendiocarb	- Insecticide on pasture seed
Benomyl	- Treatment of seed barley, seed oats and seed wheat
Benquinox	- Seed dressing
Bentonite	- Sunscreen for fruiting vegetables, other than cucurbits, and for fruits
Benzalkonium chloride	- For use as a teat dip
Benzoic acid	- Fungistat on stored grain for animal use and when used to control Fusarium wilt in cotton
Beta-cyfluthrin	- As the active constituent in contained bait stations used in orange, mandarin, mango, lychee, carambola and persimmon trees, where direct contact will not occur with the fruit
Bifenthrin	- As an insecticide and acaricide on ornamentals Seed Lucerne treatment
Bismuth subnitrate	- For intramammary infusion for the prevention of mastitis in non-lactating dairy cows
Bm86 antigen	- Vaccine for control of cattle tick
Brodifacoum	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Bromadiolone	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Bromo, chloro-dimethylhydantoin	As a biocide for fruits, vegetables and ornamentals
Calciferol	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Calcium carbide	- Growth regulator in pineapples
Calcium chloride	- Spray or dip of apples
Calcium nitrate	- Spray or dip of apples
Calcium polysulphides	- Fungicide, miticide, dormant spray
Canola oil	As a miticide/insecticide in home gardens, ornamentals floriculture, and vegetable crops grown in protected environments
Captan	- Treatment of seed rice - Treatment of vegetable seeds - Fungicidal seed dressing
Carbendazim	- Timber treatment
Carbetamide	- Herbicide on carrot seed crops
Cephalonium	For opthalmic use on cattle and sheep
Chlordane	- Timber treatment, non-food containers
Chlorflurenol	- Growth regulator on pineapples

Chlorfurenol	As a flower inductant in mango trees
Chlorothalonil	- Timber treatment
Chlorpyrifos-methyl	- Insecticide for treatment of seed
Chlortetracycline	- Topical applications for use on sheep, cattle, pigs and poultry
Cholecalciferol	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Cloprostenol	- Induction of oestrus in cattle and induction of farrowing in sows and gilts
Cloves Herbal Extract	- Control of Helminths in sheep
Cloxacillin	- For ophthalmic use on cattle and sheep
Coumatetralyl	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur {T} For control of rats in sugar cane
Creosote	- Timber treatment - Treatment for tree trunks - Disinfectant for animal and poultry houses, egg hatcheries and associated equipment excluding dairies and milking equipment
Cresylic acid	- Dormant spray - Treatment for tree trunks and poultry houses - Timber treatment - Repellent for flies in cattle, goats and sheep - Disinfection of animal and poultry houses, and associated equipment
Cyanatryn	- Aquatic herbicide in drainage ditches
Cyfluthrin	- Crack and crevice treatment and barrier strip
Cyhalothrin	- Crack and crevice treatment and barrier strip
Cypermethrin	- Seed dressing for cereal grains
Cypermethrin	Control of crawling insects in domestic premises
Cyproconazole	- For use on pruning wounds of various fruit trees
Cyromazine	- Domestic and commercial premises where contact with food or food producing animals will not occur - Pre-planting treatment of vegetable seed beds and cereal crops with treated manure
Cytokinins	- Growth regulator for vegetables
Dazomet	- Soil fumigant
Delta-7 porcine somatotrophin	- Injection to pigs to improve leanness of meat, feed conversion and growth rate
Deltamethrin	- Crack and crevice treatment and barrier strip
Derris	- Insecticide on fruit and vegetables - Poultry dust - Sheep dip
Dichlorodiethyl ether	- Wood preservative

4,5-dichloro-2-n-octyl-4-isothiazolin-3-one	- Anti-fouling paint on nets in aquaculture
1,2-Dichloropropane	- Soil fumigant
1,3-Dichloropropene	- Soil fumigant - Pre-plant fumigant for vegetables, cereal grains and fruit and nut trees.
Dicloran	- Seed dressing for peanuts
Dieldrin	- Timber treatment, non-food containers
Diethyl phthalate	- Insect repellent
Difethialone	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Dinoprost	- Induction of oestrus and advancing parturition in cattle and pigs
Diphacinone	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Dithiocarbamates (mancozeb, metham, metiram, propineb, thiram, zineb and ziram)	- As fungicides on ornamentals - As a fungicide on acacia, fir and pine trees - As a pre-plant and fallow soil fumigation for crops - As a seed dressing
Dithiopyr	- Treatment of turf where grazing by, or feeding to, livestock including poultry will not occur
(E,E) 8,10-Dodecadien-1-ol	- In slow-release dispensers for mating disruption of insects in fruits and tree nuts
Dodecan-1-ol	- In slow-release dispensers for mating disruption of insects in fruits and tree nuts
(Z)-8-Dodecenol	- Pheromone
(E)-8-Dodecenyl acetate	- Pheromone
(Z)-8-Dodecenyl acetate	- Pheromone
Dodecyl benzene trimethyl ammonium chloride	- Disinfectant for animal and poultry houses and hatcheries
Domperidone	For induction of spawning in finfish broodstock
E. Coli antigen	- For use in pigs
Ethephon	- Pre-planting treatment of ginger root
Ethyl formate	As a fumigant for cereals, pulses and canola and associated storage structures and machinery
Ethylene	- Ripening of fruits
Etiproston & Etiproston tromethamine	Induction and synchronization of oestrus in cattle and Induction of parturition and luteolysis in cattle
Epidermal Growth Factor	- Aid for wool harvesting in sheep
Farnesol	- Pheromone
Fenitrothion	- For use in seed dressings

Fenoxycarb	- Control of insects in food preparation areas
Fenprostalene	- Synchronization of oestrus in cattle - Treatment of reproductive disorders
Ferrous sulphate	- Trace element - Herbicide
Fipronil	Control of Argentine ants in vineyards - As a soil injection for control of termites in immature, non-bearing citrus and mango orchards
Flocoumafen	- In baits as a rodenticide in situations where contact with crops, food products, or soil in which crops are grown will not occur
Flugestone acetate	- Induction of oestrus in sheep and goats
Fluroxypyr	Herbicide on poppies
Flusilazole	- As a fungicide in quarantine use on mango trees
Formaldehyde	- Treatment of protozoan and metazoan infestations in finfish and fungal infections in finfish eggs - Fumigant for hatching eggs, incubators, hatcheries, broiler sheds and poultry houses - Fumigant of seed beds and animal houses - Seed dressing - Soil fumigant - Treatment of footrot and animal diseases Treatment of epicommensal protozoan infestation in prawn, and viral infections in prawn broodstock
Formic acid	- Treatment of silage
Fumagillin	- Treatment of <i>Nosema</i> disease in bees
Garlic	- Bird repellent
Garlic extract	As an insecticide in fruit and vegetables
Garlic Herbal Extract	- Control of Helminths in sheep
Gibberellic acid	- Treatment of pastures Plant growth regulator when used < 625 g ai/ha/year or when used as a seed treatment
Glyphosate	- Herbicide for control of blackberries
Glutaraldehyde	- Treatment of empty animal and poultry houses
Gonadotrophin Releasing Hormone (GnRH) and synthetic analogues [including deslorelin, gonadorelin and salmon GnRH analogue]	- Cattle: treatment of cystic ovaries; prevention of delayed ovulation; improvement of fertility rate - Horses: induction of ovulation Finfish: induction of spawning in finfish broodstock
Gonadotrophins [including Pregnant Mare Serum Gonadotrophin (PMSG), Serum Gonadotrophin, Chorionic Gonadotrophin, Luteinizing Hormone (LH),	- Cattle: induction of superovulation; treatment of cystic ovarian syndrome and anoestrus - Goats: induction of superovulations - Horses: induction of ovulation and treatment of anoestrus - Sheep: induction of superovulation

ovine and porcine Follicle Stimulating Hormone (FSH)	<ul style="list-style-type: none"> - Pigs: oestrus induction in sows and gilts - Fish: induction of spawning in finfish broodstock
Heptachlor	<ul style="list-style-type: none"> - Timber treatment, non-food containers
Z-11-Hexadecenal	<ul style="list-style-type: none"> - Mating disruption of <i>Helicoverpa spp.</i> in cotton and sweet corn
Z-9-Hexadecenal	<ul style="list-style-type: none"> - crops
Hexazinone	<ul style="list-style-type: none"> - Herbicide for control of blackberries
Hydramethylnon	<ul style="list-style-type: none"> - In bait trays for control of ants
8-Hydroxyquinoline	<ul style="list-style-type: none"> - Treatment of cuttings and grafts
Imidacloprid	<ul style="list-style-type: none"> - As the active constituent in contained bait stations used in orange, mandarin, mango, lychee, carambola and persimmon trees, where direct contact will not occur with the fruit
Imiprothrin	Control of crawling insects in domestic premises
Indol-3-yl butyric acid	<ul style="list-style-type: none"> - Treatment of cuttings
Iodine{T}	Sanitising fruit and vegetables
Iodine (elemental)	<ul style="list-style-type: none"> - When incorporated into a polyethylene capsule device for intra-ruminal administration to sheep - Disease control in the drinking water of poultry; topical and ocular application of poultry; disinfecting and cleaning poultry surrounds by fogging
Iodocarb	<ul style="list-style-type: none"> - For use on pruning wounds of various fruit trees
Iron galactan	<ul style="list-style-type: none"> - Treatment of anaemia in piglets
Iron-EDTA complex	<ul style="list-style-type: none"> - As a molluscicide in fruit and vegetable crops
<i>Lactobacillus spp.</i>	<ul style="list-style-type: none"> - When used as a silage inoculant
Lime sulphur	<ul style="list-style-type: none"> - Fungicide and insecticide on fruits, nuts and vegetables - Sheep and pig dip/spray
Lindane	<ul style="list-style-type: none"> - Seed dressing
Lysol	<ul style="list-style-type: none"> - Disinfectant
Magnesium alloy capsules	<ul style="list-style-type: none"> - Control of grass tetany in cattle
Magnesium chlorate	<ul style="list-style-type: none"> - Defoliant on cotton
Magnesium fluosilicate	<ul style="list-style-type: none"> - Bacteriostat in sheep dips
Maldison	<ul style="list-style-type: none"> - Seed dressing
Melatonin	<ul style="list-style-type: none"> - Subcutaneous implant in sheep to regulate ovulation
Metacresol	<ul style="list-style-type: none"> - Treatment of crown gall in blueberries
Metalaxyl	<ul style="list-style-type: none"> - Seed dressing
<i>Metarhizium anisopliae</i>	<ul style="list-style-type: none"> - Soil treatment for the control of the Red Headed Cockchafer (Pasture scarab) - as a soil treatment for the control of Greyback canegrub in sugarcane - For the control of the Australian Plague Locust (adult and nymphs), Wingless Grasshopper, Spur Throated Locust and Migratory Locust

	{T} External treatment for the control of cattle tick (<i>boophilus microplus</i>) on beef cattle
	{T} For the control of whitefly (<i>Bemesia tabaci</i>) on flowers and vegetables
Methabenzthiazuron	- Post-emergent herbicide for use on grape cover crops
Methiocarb	- In baits for the control of garden pests {T} in baits for the control of garden pests on herbs, lemon balm, lemon grass, kaffir lime leaves, , lemon verbena and tumeric
Methionyl porcine somatotrophin	- Injection to pigs to improve leanness of meat, feed conversion and growth rate
(S)-Methoprene	- Control of insects in domestic premises For the control of mosquitos at permanent and temporary water sites
Methyl isothiocyanate	- Soil fumigant
Methy neodecanamide	Crawling insect repellent in household cleaners
Metsulfuron methyl	- Herbicide for control of blackberries
Muscalure	- Attractant in fly bait
Napthalene	- Insect repellent
Neoplectana bibionis	- Biological control of currant borer
Nerolidol	- Pheromone
N-Octyl bicycloheptene dicarboximide	- Control of insects in domestic premises
Nuclear Polyhedrosis Virus <i>Heliothis</i> Nerolidol	- Insecticide - Pheromone
Octadecenoic acid methyl ester	- Controlling bud break in pome and stone fruit and grapes - Control of bud break in fruit
Octhilinone	- Treatment of seed cotton
Oestradiol benzoate	- In combination with progesterone in an intravaginal device for the regulation of oestrus in cattle - When implanted in the ear for growth promotion purposes in cattle
Oestradiol-17-beta	- When implanted in the ear for growth promotion purposes in cattle
Oestradiol valerate	- Induction of oestrus in cattle
PDB	- Insecticide on fruit trees
Pendimethalin	For the control of weeds on teatrees
Permethrin	- As an insecticide in domestic, agricultural, industrial and commercial premises where contact with food, food production areas and food producing animals will not occur - Timber treatment, non-food containers
Petroleum oil	- Fungicide on fruits - Insecticide on fruits, vegetables, nuts, coffee and <i>duboisia</i>

	<ul style="list-style-type: none"> - Sheep dressing - Herbicide on vegetables and cereals - Harvest aid on cotton {T} as an insecticide on herbs, lemon balm, lemon grass kaffir lime leaves, lemon verbena and tumeric
Phosphorous acid (phosphonic acid)	When used as a fungicide generally
Picloram	<ul style="list-style-type: none"> - Herbicide for control of blackberries - Herbicide for control of woody and noxious weeds in commercial and industrial areas, public lands, fence lines and pastures
Pili antigen (from <i>Dichelobacter nodosus</i>)	<ul style="list-style-type: none"> - Prevention of footrot in Merino sheep
Piperonyl butoxide	<ul style="list-style-type: none"> - Control of insects in domestic premises
Pirimiphos-methyl	<ul style="list-style-type: none"> - Treatment of seed
Poly (GNRF) ovalbumin	<ul style="list-style-type: none"> - Immunogen for control of reproduction in cattle
Poly (LHRH) ovalbumin	<ul style="list-style-type: none"> - Immunogen for control of reproduction in cattle
Potassium cyanate	<ul style="list-style-type: none"> - Herbicide on onions
Potassium linoleate	<ul style="list-style-type: none"> - Insecticide on fruit, vegetables and cotton
Potassium N-hydroxy methyl N-methyldithiocarb	<ul style="list-style-type: none"> - Soil fumigant
Potassium oleate	<ul style="list-style-type: none"> - Insecticide on fruit, vegetables and cotton
Potassium palmitate	<ul style="list-style-type: none"> - Insecticide on fruit, vegetables and cotton
Potassium stearate	<ul style="list-style-type: none"> - Insecticide on fruit, vegetables and cotton
Progesterone	<ul style="list-style-type: none"> - Induction of oestrus in cattle, goats and sheep - When implanted in the ear for growth promotion purposes in cattle
Propionic acid (and its salts)	<ul style="list-style-type: none"> - Fungistat on stored grain for animal use - Preservative in hay and legume animal feeds
Prostianol	<ul style="list-style-type: none"> - Oestrus control in cattle and sheep - Advancing parturition in pigs
Protein hydrolysate	<ul style="list-style-type: none"> - Attractant in insect baits
Prothiofos	<ul style="list-style-type: none"> - Timber treatment for poles, posts, and agricultural buildings/structures
<i>Pseudomonas fluorescens</i>	<ul style="list-style-type: none"> - Control of bacterial blotch in cultivated mushrooms
Pyrethrins	<ul style="list-style-type: none"> - Control of insects in domestic premises
Pyriproxyfen	<ul style="list-style-type: none"> - As a bait for the control of Fire Ants in fruits, vegetables, nuts, herbs and spices in situations where direct contact will not occur with the crop
<i>Quassia</i> infusion	<ul style="list-style-type: none"> - Insecticide
Rabbit calicivirus	<ul style="list-style-type: none"> - As an injection for the biological control of European rabbits
Red pepper	<ul style="list-style-type: none"> - Bird repellent

Rotenone	<ul style="list-style-type: none"> - Insecticide on fruit and vegetables - Poultry dust - Pig and sheep dip/spray
Salicylic acid	{T} As a trunk injection for control of silver leaf on pome fruit and stone fruit trees
Silica gel	- Insecticide in cereal grains and seed
S-methoprene	- As a bait for the control of Fire Ants in fruits, vegetables, nuts, herbs and spices in situations where direct contact will not occur with the crop
Sodium acetate	- Fungistat on stored grain for animal use
Sodium carbonate	- Scale treatment
Sodium chlorate	<ul style="list-style-type: none"> - Herbicide on pastures - Defoliant on cotton - {T} Defoliant on sorghum
Sodium edetate	- Disinfectant for animal and poultry houses and hatcheries
Sodium metasilicate pentahydrate	- Disinfectant for animal and poultry houses and hatcheries
Sodium monofluoroacetate	- Baits for control of cats, dogs, foxes, pigs, rabbits and rodents in situations where contact will not occur with crops, soil in which crops are grown, or food products
Sodium trichloroacetate	- Herbicide on pastures
Somidobove (bovine somatotrophin analogue)	- Injection for improvement of milk production in cattle
Sorbic acid (and its salts)	<ul style="list-style-type: none"> - Fungistat on stored grain for animal use - Preservative in hay and legume animal feeds
Stemona Herbal Extract	- Control of Helminths in sheep
<i>Streptococcus fascium</i>	- When used as a silage inoculant
Strychnine	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Succinyl choline	- For use in the capture of wild animals
Sulphur	<ul style="list-style-type: none"> - Fungicide on fruit, vegetables, herbs, spices and edible flowers - Insecticide on cotton, fruit, nuts and vegetables - Poultry dust/ointment - Soil conditioner
Talc	- Sunscreen for fruiting vegetables, other than cucurbits, and for fruits
Tar acids	<ul style="list-style-type: none"> - Dormant spray - Timber and tree trunk treatment - Disinfection of animal and poultry houses, and associated equipment
Tar distillates	<ul style="list-style-type: none"> - Dormant spray - Timber and tree trunk treatment
Tar oils	<ul style="list-style-type: none"> - Dormant spray - Timber and tree trunk treatment

TCA	- Pre-planting herbicide in sugar cane
TCMTB	- Fungicide for treatment of cereal seed
Tea tree oil	- For the control of sigatoka leaf spot in bananas
Tebuconazole	- Seed dressing for peanut seed
Testosterone cypionate	- Growth promotant in sheep when injected subcutaneously - Control of posthitis and balanitis in sheep
Testosterone enanthate	- Control of posthitis and balanitis in sheep
Testosterone propionate	- Control of posthitis and balanitis in sheep - When implanted in the ear for growth promotion purposes in cattle
Tetracosactrin	- Reduction of parturition time in sows - Determination of stress susceptibility in pigs
Tetradecan-1-ol	- In slow-release dispensers for mating disruption of insects in fruits and tree nuts
Tetramethrin	- Crack and crevice treatment and barrier strip
Thallium sulphate	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur except in baits as a rodenticide in sugar cane fields
Thaumatococin	- Administration to pigs
Thiabendazole	- Treatment of legume vegetable seeds, seed barley, seed oats, seed pulses and seed wheat
Thifensulfuron-methyl	- As a herbicide in chicory crops grown for seed production
Transfluthrin	- Control of insects in domestic premises
Triadimefon	- Seed dressing
<i>Trichoderma harzianum</i>	- Fungicide on grapevines
Triclopyr	- Herbicide for control of blackberries - Herbicide for control of woody and noxious weeds in commercial and industrial areas, public lands, fence lines and pastures
Trifluralin	- {T} To prevent root intrusion in underground orchard irrigation systems
Urogastrone-and methionine-epidermal growth factor	- As subcutaneous injection or implantation for biological shearing of sheep
<i>Xenorhabdus nematophilus</i>	- Biological control of currant borer
2,4-Xylenol	- Treatment of crown gall in blueberries
Warfarin	- In baits as a rodenticide in situations where contact with crops, food products or soil in which crops are grown will not occur
Wormwood Herbal Extract	- Control of Helminths in sheep