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GUIDELINE LIST OF HAZARDOUS MATERIALS FOR EWS REPORTING

EARLY WARNING SYSTEM (EWS)

For members of:

**Animal Feed Manufactures Association (AFMA) and
Pet Food Industry (PFI)**

For undesirable substances in Feedstuffs and Animal Feed/Pet Food in South Africa

(NB. This list is a guideline and does not exclude any hazardous substance not mentioned). List based on the Guidelines of Act 36 of 1947.

The list will be updated as new risks are identified, locally and/or internationally through different alerting mechanism.

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1. GUIDELINE LIST OF HAZARDOUS MATERIALS FOR EWS REPORTING

1.1 UNDESIRABLE SUBSTANCES IN FARM FEEDS

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
Substances (ions or elements)		
1. Arsenic	Feed ingredients with the exception of:	2
	- Hays, straws, Lucerne, roughages and bagasse	4
	- phosphates and ingredients obtained from the processing of fish or other marine animals.	10
	Complete farm feeds with the exception of:	2
	- complete farm feeds for fish	4
	Supplements/concentrates with the exception of:	4
	- Mineral feeds, concentrates & pre-mixtures	12
2. Lead	Ingredients with the exception of:	10
	- green roughages	40
	- phosphates	30
	- yeasts	5
	- Complete farm feeds	5
	Supplements/concentrates with the exception of:	10
	- Mineral feeds	30
3. Fluorine	Feed Ingredients with the exception of:	150
	- ingredients of animal origin	500
	- phosphates	95 per 1% P

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
	Complete farm feeds with the exception of:	150
	- complete feeds for lactating cattle, sheep and goats	30
	- other	50
	- complete feeds for pigs	100
	- complete feeds for poultry	350
	- complete feeds for chicks	250
	Mineral supplements for cattle, sheep and goats	2000
	Other Concentrates/supplements	125 per 1% P
4. Mercury	Feed ingredients except feed ingredients produced by the processing of fish or other marine animals	0,1
	Feed ingredients produced by the processing of fish or other marine animals	0,5
	Complete feeds except for dogs and cats.	0,1
	- Complete feeds for dogs and cats.	0,4
	Concentrates/supplements except complementary food for dogs and cats	0,2
5. Nitrites	Fish meal	60 (expressed as sodium nitrite)
	Complete feeds excluding: - ingredients intended for pets except birds and aquarium fish.	15 (expressed as sodium nitrite)
6. Cadmium	Ingredients of vegetable origin	1
	Ingredients of animals origin except feeding stuffs for pets	2
	Phosphates	10 per 1% P

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
	Complete farm feeds for cattle, sheep and goats except complete feeds for calves, lambs and kids	1
	Other complete feeds except feeds for pets	0,5
	Mineral feeds	5
	Other Concentrates/ Supplements for cattle, sheep and goats	0,5
1. Aflatoxin B1	Feed ingredients with the exception of:	0.05
	- Groundnut, copra, palm-kernel, cotton seed, maize and products derived from the processing thereof	0,02
	Complete farm feeds for cattle, sheep and goats with the exception of:	0,05
	- dairy cattle	0,005
	- calves and lambs	0,01
	Complete feeds for pigs and poultry (except young animals)	0,02
	Other complete farm feeds	0,01
	Supplement/concentrates for cattle, sheep and goats (except for dairy animals, calves and lambs)	0,05
2. Hydrocyanic acid	Feed ingredients with the exception of: 8	50
	Linseed	250
	Linseed cakes	350
	Manioc products and almond cakes	100
	Complete feeds with the exception of:	50

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
	- complete feeds for chickens:	10
3. Free gossypol	Feed ingredients with the exception of:	20
	- cotton seed cakes	1 200
	- cotton seed	5 000
	Complete farm feeds with the exception of:	20
	- complete feeds for cattle, sheep and goats	500
	- complete feeds for poultry (except laying hens) and calves	100
	- complete feeds for rabbits and pigs (except piglets)	60
4. Theobromine	Complete farm feeds with the exception of:	300
	- complete feeds for adult cattle	700
5. Volatile mustard oil	Feed ingredients with the exception of:	100
	- rape seed cakes	4 000 (expressed as allyl isothiocyanate)
	Complete farm feeds with the exception of	150 (expressed as allyl isothiocyanate)
	- complete feeds for cattle, sheep and goats (except young animals)	1 000 (expressed as allyl isothiocyanate)
	- complete feeds for pigs (except piglets) and poultry	500 (expressed as allyl isothiocyanate)
6. Vinyl thioxazolidone (vinylloxazolidine thione)	Complete feeds for poultry with the exception of:	1 000
	- complete feeds for laying hens	500
7. Rye ergot (<i>Claviceps purpurea</i>)	All farm feeds containing unground cereals	1 000

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
8. Weed seeds and unground and uncrushed fruit containing alkaloids, glucosides or other toxic substances separately or in combination including	All farm feeds	3 000
(a) <i>Lolium temulentum</i> L,		1 000
(b) <i>Lolium remotum</i> Schrank,		1 000
(c) <i>Datura stramonium</i> L.		1 000
9. Castor oil plant - <i>Ricinus communis</i> L.	All farm feeds	10 (expressed in terms of castor-oil plant husks)
10. <i>Crotalaria</i> spp.	All animals feeds	100
11. Aldrin singly or combined expressed as dieldrin	All farm feeds with the exception of:	0,01
	- fats	0,02
12. Dieldrin		
13. Camphechlor (Toxaphene)	All farm feeds	0,1
14. Chlordane (sum of cis-and trans-isomers and of oxychlordane, expressed as chlordane)	All farm feeds with the exception of:	0,02
	- fats	0,05
15. DDT (sum of DDT- TDE and DDE-isomers, expressed as DDT)	All farm feeds with the exception of:	0,05
	- fats	0,5
16. Endosulfan (sum of alpha- and beta-somers and of endosulfansulphate expressed as endosulfan)	All farm feeds with the exception of:	0,1
	- maize	0,2
	- oilseeds	0,5
	- complete feeds for fish	0,005
17. Endrin (sum of endrin and delta-ketoi-endrin, expressed as endrin)	All farm feeds with the exception of:	0,01
	- fats	0,05
18. Heptachlor (sum of heptachlor and of heptachlor-epoxide, expressed as heptachlor)	All farm feeds with the exception of:	0,01
	- fats	0,2

SUBSTANCE, PRODUCTS	FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)
19. Hexachlorobenzene (HCB)	All farm feeds with the exception of:	0,01
	- fats	0,2
20. Hexachlorocyclo-hexane (HCH)	All farm feeds with the exception of fat	0.02
20.1 alpha-isomer	All farm feeds with the exception of:	0,02
	- fats	0,2
20.2 beta-isomer	Compound farm feed with the exception of:	0,01
	- feeding stuffs for dairy cattle	0,005
	Feed ingredients with the exception of:	0,01
	- fats	0,1
20.3 gamma-isomer	All farm feeds with the exception of:	0,2
	- fats	2,0
C. BOTANICAL IMPURITIES		
1.)	Apricots - <i>Prunus armeniaca</i> L.	
2.)	Bitter almond - <i>Prunus dulcis</i> (Mill.) D.A. Webb var. <i>amara</i> (DC.) Focke (= <i>Prunus amygdalus</i> Batsch var. <i>amara</i> (DC.) Focke)	
3.)	Unhusked beech mast - <i>Fagus silvatica</i> (L).	

SUBSTANCE, PRODUCTS		FARM FEEDS	MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg
(1)	(2)	(3)	(3)
4.	Camelina - <i>Camelina sativa</i> (L.) Crantz		
5.	Mowrah, Bassia, Madhuca - <i>Madhuca longifolia</i> (L.) Macbr. (= <i>Bassia longifolia</i> L. = <i>Illipe malabroum</i> Eng1.) <i>Madhuca indica</i> Gmelin (= <i>Bassia latifolia</i> (Roxb.) = <i>Illipe latifolia</i> (Roscb.) F. Mueller)	All farm feeds	Seeds and fruit of the plant species listed opposite as well their processed derivatives may only be present in feed ingredients in trace quantities not quantitatively determinable.
	Purghera - <i>Jatropha curcas</i> L.		
7.	Croton - <i>Croton tiglium</i> L.		
8.	Indian mustard - <i>Brassica juncea</i> (L.) Czern. and Coss.ssp. <i>integrifolia</i> (West.) Thell.		
9.	Sareptian mustard - <i>Brassica juncea</i> (L.) Czern. and Coss.ssp. <i>juncea</i>		
10.	Chinese mustard - <i>Brassica Juncea</i> (L.) Czern and Coss. ssp. <i>Junica var lutea</i> Batelin		
11.	Black mustard - <i>Brassica nigra</i> (L.) Koch		
12.	Ethiopian mustard - <i>Brassica carinata</i> A. Braun		
	Melamine	All Farm Feeds	2.5

PROHIBITED INGREDIENTS

Faeces, urine as well as separated digestive tract content resulting from the emptying of removal of the digestive tract.

Hide treated with tanning substances, including its waste.

Seeds and other plant propagating materials which after harvest, have undergone specific treatment with plant protection products for their intended use (propagation), and any derived by-products.

Wood, sawdust and other materials derived from wood treated with wood protection products.

Sludge from sewage plants treating waste waters.

Solid urban waste such as household waste.

Untreated waste from eating places.

The packaging and parts of packaging or the use of products from the agri-food industry.